

## Written Consultation | Nov. 23 to Jan. 21, 2022 – Stakeholder Comments

### Posted | Jan. 25, 2022

1. AltaLink Management Ltd.
2. ATCO Electric Transmission
3. Canadian Natural Resources Ltd. (CNRL)
4. Capital Power Corporation
5. Cenovus Energy Inc.
6. ENMAX Energy and ENMAX Power
7. EPCOR Distribution & Transmission Inc. (EDTI)
8. Heartland Generation Ltd.
9. Imperial Oil
10. Suncor Energy Inc.
11. TC Energy Ltd.
12. TransAlta Corporation

# Stakeholder Comment Matrix – Nov. 23, 2021

Alberta Reliability Standards (ARS) Development & Monitoring | Existing ARS Program



Comment period:	Nov. 23, 2021 to Dec. 17, 2021	Contact:	Jenette Yearsley
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Date:	2022/01/21	Email:	jenette.yearsley@altalink.ca

## Instructions

1. Please fill out the section above as indicated.
2. Please respond to the questions below and provide your specific comments.
3. **Please submit one completed comment matrix per organization.**
4. **Stakeholder comment matrices will be published on [aeso.ca](https://www.aeso.ca), in their original state.**
5. Email your completed comment matrix to [stakeholder.relations@aeso.ca](mailto:stakeholder.relations@aeso.ca) by **Dec. 17, 2021**.

## Request for feedback

The AESO is seeking feedback from interested stakeholders on their perspectives as it relates to the current ARS Program, and on identifying and prioritizing areas of potential improvement opportunities. The AESO values stakeholder feedback and invites all interested stakeholders to provide their comments on the following questions. Please be as specific as possible with your responses. Thank you.

Questions		Stakeholder Comments
1.	What <u>challenges</u> do you see with the AESO's <b>existing ARS Program, specifically its approaches to standards development, implementation and monitoring</b> , and what <u>suggestions</u> would you offer to improve these approaches?	AltaLink has prepared a detailed response to the issues related to the ARS program that addresses fundamental challenges to the current ARS program. It also provided recommendations to address these challenges. Refer to AltaLink's ARS Consultation - Appendix A for specifics.
	(i) Standards development approach	Refer to AltaLink's ARS Consultation - Appendix A for specifics.
	(ii) Standards implementation approach	Refer to AltaLink's ARS Consultation - Appendix A for specifics.
	(iii) Standards compliance monitoring approach	Refer to AltaLink's ARS Consultation - Appendix A for specifics.

Questions		Stakeholder Comments
2.	If the AESO was to adopt a more risk-based approach to its ARS Program overall, what factors should it include in its approach (e.g. priority criteria, risk, impact, frequency, history)?	AltaLink supports a risk-based approach and suggests the approach also be results-based that focuses on performance, risk management and entity capabilities.  AltaLink submits all of these factors should be considered in a risk-based approach; however, the risk to the AIES should be paramount. Refer to AltaLink's ARS Consultation - Appendix A for specifics.
3.	Do you know of a risk-based approach for standards development, implementation and compliance monitoring that has worked in other jurisdictions and might be applicable here? Please specify.	AltaLink supports moving into closer alignment with the NERC process with particular attention paid to other entities in Canada and/or WECC. The NERC Risk-Based Compliance Monitoring and Enforcement Program (CMEP) can be used as a starting model. Refer to AltaLink's ARS Consultation - Appendix A for specifics.
4.	What <u>challenges</u> do you see with the <b>existing standards development processes</b> versus the approach identified in Q1, and what <u>suggestions</u> would you offer to improve these processes?	AltaLink submits there is a lack of planning, interpretation, and coordination with evidence expectations. There also needs to be a closer linkage with NERC standards and information on differences and Market Participants' ability to rely on NERC guidance. Refer to AltaLink's ARS Consultation - Appendix A for specifics.
	(i) Adoption/rejection criteria	Refer to AltaLink's ARS Consultation - Appendix A for specifics.
	(ii) Process effectiveness and efficiency	Refer to AltaLink's ARS Consultation - Appendix A for specifics.
	(iii) Sufficient information to understand content and intent	The lack of a clear interpretation and timely clear evidence expectations is a fundamental missing component of both standard development and compliance monitoring. Refer to AltaLink's ARS Consultation - Appendix A for specifics.
	(iv) Other	Refer to AltaLink's ARS Consultation - Appendix A for specifics.
5.	What <u>challenges</u> do you see with the <b>existing standards implementation processes</b> versus the approach identified in Q1, and what <u>suggestions</u> would you offer to improve these processes?	Refer to AltaLink's ARS Consultation - Appendix A for specifics.
	(i) Process effectiveness and efficiency	Refer to AltaLink's ARS Consultation - Appendix A for specifics.

Questions		Stakeholder Comments
	(ii) Sufficient information to implement (e.g. Information Documents, NERC guidance, AESO technical sessions)	There needs to be clearer communication on when a Market Participant can or cannot rely on NERC guidance. Refer to AltaLink's ARS Consultation - Appendix A for specifics.
	(iii) Barriers to implement standards (e.g. lack of understanding of measures)	The lack of consistent interpretation of the standard and evidence expectations is a foundation issue. Refer to AltaLink's ARS Consultation - Appendix A for specifics.
	(iv) Other	Refer to AltaLink's ARS Consultation - Appendix A for specifics.
6.	What <u>challenges</u> do you see with the <b>existing standards compliance monitoring program and its associated processes</b> versus approach identified in Q1, and what <u>suggestions</u> would you offer to improve this program and its processes?	The Compliance Monitoring program needs to be risk-based and results focused. AltaLink has a number of suggestions. Refer to AltaLink's ARS Consultation - Appendix A for specifics.
	(i) Compliance monitoring program (CM program) effectiveness and efficiency (e.g. three-year cycle, monitoring tools)	There are several opportunities for improvement. Refer to AltaLink's ARS Consultation - Appendix A for specifics.
	(ii) Monitoring processes' effectiveness and efficiency (e.g. audit, self-certification, evidence requirements)	There are several opportunities for improvement. Refer to AltaLink's ARS Consultation - Appendix A for specifics.
	(iii) Sufficient information to comply	Refer to AltaLink's ARS Consultation - Appendix A for specifics.
	(iv) Sufficient information to prepare and submit information, including evidence	Refer to AltaLink's ARS Consultation - Appendix A for specifics.
	(v) Barriers to follow the CM program	Refer to AltaLink's ARS Consultation - Appendix A for specifics.
	(vi) Barriers to adhere to monitoring processes and timelines	Refer to AltaLink's ARS Consultation - Appendix A for specifics.
	(vii) Other	Refer to AltaLink's ARS Consultation - Appendix A for specifics.

Questions	Stakeholder Comments
7. What area of knowledge transfer (e.g. training, education and awareness) could the AESO bolster to better equip market participants to prepare for and adhere to compliance monitoring processes?	Refer to AltaLink's ARS Consultation - Appendix A for specifics.
8. What is the <u>one thing</u> you would recommend the AESO do in 2022 – if you could only do one thing next year – to enhance and drive efficiencies in the standards development, implementation and compliance monitoring approaches and processes?	A collaborative approach to settle the interpretation of standards and the evidence expectations so that Market Participants, the AESO and the MSA are all in agreement. This should include the role of NERC guidance. Refer to AltaLink's ARS Consultation - Appendix A for specifics.
9. For the upcoming consultation kicking off in 2022, please rank the following work streams in your preferred priority order:	AltaLink does not find these categories to be a useful model. The issues with the ARS program impact the entire program. The program needs to be considered holistically and not in individual silos. AltaLink has addressed its priorities differently. Refer to AltaLink's ARS Consultation - Appendix A for specifics.
(i) Development approach	
(ii) Implementation approach	
(iii) Compliance monitoring approach	
(iv) Development processes	
(v) Implementation processes	
(vi) Compliance monitoring processes	
(vii) Other	
10. Additional comments	

Thank you for your input. Please email your completed matrix to: [stakeholder.relations@aeso.ca](mailto:stakeholder.relations@aeso.ca)

January 21, 2022

*Sent via email: stakeholder.relations@aeso.ca*

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**Re: AltaLink's Appendix A Submission for ARS Development and Monitoring Consultation**

AltaLink includes this Appendix A with its responses to the Stakeholder Comment Matrix to provide its comments and some initial recommendations for the AESO to consider as part of its Alberta Reliability Standards (ARS) Development and Monitoring Consultation. AltaLink reiterates that it believes that the ARS are a critical part of ensuring it meets its obligations as a transmission facility owner (TFO) and important to support the overarching need to provide safe, secure, reliable, and economic operations of the Alberta Interconnected Electric System (AIES). AltaLink appreciates the opportunity to provide comments through this stakeholder engagement for ARS Development and Compliance Monitoring as it sees opportunities to reduce the regulatory burden and eliminate administrative hurdles to facilitate the transition to the next generation of ARS development and monitoring.

The reliability standards that are applicable in Alberta include those of the Western Electric Coordinating Council (WECC) and North American Electric Reliability Council (NERC) to "the extent that those reliability standards... are adopted by the ISO..."<sup>1</sup> While Alberta is unique in that NERC reliability standards do not directly apply, the experiences of WECC and NERC can assist in the evolution of Alberta's ARS development and monitoring. At a foundational level, AltaLink supports the NERC position that reliability standards:

define the reliability requirements for planning and operating the North American bulk power system and are developed using a results-based approach that focuses on performance, risk management, and entity capabilities.<sup>2</sup>

The flexibility provided by the legislative scheme in Alberta should support this direction rather than deviate from it so that ARS does not create an unnecessary level of regulatory burden without a corresponding advantage. The approach to ARS should always ensure the "safe, reliable and economic operation of the interconnected electric system".<sup>3</sup> In today's world, "reliable" must be read to include security of the electric system, including risks related to cyber and physical attacks, and "economic" must be read to include the full cost of the requirements by all Market Participants, including the AESO, Market Surveillance Administrator (MSA) and the Alberta Utilities Commission (AUC). The approach taken by one entity has repercussions on the activities and costs for other entities. A more holistic and collaborative approach throughout best serves the Alberta ratepayer.

AltaLink has several concerns with the current ARS Development and Compliance Monitoring processes. These concerns are not all easily grouped into the development, implementation, or compliance monitoring buckets, and in some instances cross over all three areas. At a

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<sup>1</sup> Transmission Regulation, s. 19(1)

<sup>2</sup> <https://www.nerc.com/pa/Stand/Pages/default.aspx>

<sup>3</sup> *Electric Utilities Act*, s. 16(1)

fundamental level these concerns revolve around (i) interpretation/scope of the standards including the role of NERC; (ii) timing and scheduling issues in development and implementation; (iii) the consultation and clarification process; (iv) costs of ARS; and (v) the compliance monitoring process including evidence expectations. Woven throughout each of these is the need by Market Participants to have reasonable certainty that the compliance program developed supports the reliable and secure operation of the AIES in a manner that can be demonstrated at a reasonable cost.

AltaLink has prepared this Appendix A to provide more complete comments than is possible using the format found in AltaLink's Stakeholder Comment Matrix. AltaLink notes that some of its comments are also applicable to the development and implementation of ISO Rules and suggests that further efficiencies may be found by applying some recommendations to that area as well.

AltaLink submits that the following areas of the ARS Development and Compliance Monitoring process create regulatory burden and challenges for Market Participants and potentially the MSA and the AESO:

- i. Interpretation/scope of the standards including the role of NERC
- ii. Timing and scheduling issues in development and implementation
- iii. The consultation and clarification process
- iv. Costs of ARS program
- v. The compliance monitoring and clarification process

***Recommendation 1: apply a holistic and collaborative approach to the evolution of the standards development and monitoring program that promotes reliability and security, the impact of activities on entities and the overall costs for all Market Participants in a manner that reflects the current risks to the AIES***

**i. Interpretation/scope of the standards including the role of NERC**

As stated above, AltaLink subscribes the principle outlined by NERC of using a results-based approach that focuses on performance, risk management, and entity capabilities. This approach squarely aligns with the safe, reliable (and secure) and economic operation of the AIES. The interpretation and scope of the standards should align with this principle.

AltaLink's experience is that the current ARS development and monitoring program is focused more on administrative items rather than a results-based focus that supports the broader purpose of the requirements. The challenge lies both with interpretation and with compliance monitoring.

In AltaLink's most recent audit, on multiple occasions, the final audit report acknowledged the suspected contravention did not impact reliability but then stated that risk/impact assessment or impact to reliability is not within the scope of the AESO audit. The axiom that 'what gets measured gets done' applies here – if the emphasis is on administrative matters that is where resources, time and energy will be focused. As these are limited resources, this focus is to the detriment of addressing real reliability and security risks. It is critical to interpret and measure appropriately.

One missing piece in the ARS program is which entity – the AESO, MSA or perhaps the AUC – is responsible for interpreting the standards for Alberta. An argument can be made that this role

should rest with the AESO as it has the technical expertise and is responsible for standards development. In any event, this needs to be resolved so that Market Participants are clear on the interpretation and scope of standards whether existing, new, or amended. This applies both for the wording of the standards and for evidence expectations. Further, there is a lack of clarity on whether a Mitigation Plan approved by the MSA is satisfactory for the AESO. Waiting until the next audit does not promote the reliable and secure operation of the AIES.

In the same vein, it is often unclear why the AESO diverges from the language in the approved NERC standard. Often the changes occur with little communication for the purpose of significance of the changes and what, if any, impact it has to the interpretation of the standard. AltaLink suggests that substantive changes to NERC standards should be to further ensure the reliable and secure operation of AIES or to create the necessary flexibility needed to update processes or technology as grid resiliency and security threats evolve. For example, Alberta has a higher industrial load than most jurisdictions and one consideration is that the identification of CIP high/medium/low categorizations address Alberta's profile.

These unexplained changes, added to uncertainty on interpretation, make it difficult for Market Participants in Alberta to rely on NERC guidance or the experience of other entities in developing or improving their compliance program. This is a missed opportunity as there are significant resources available to support Alberta's efforts in improving reliability and security.

AltaLink submits that the AESO needs to provide clear information about when NERC experience and guidance apply in Alberta and when it does not. Currently, it is unclear to Market Participants when they can rely on NERC experience and guidance and when they cannot – and why they cannot.

Alberta ratepayers should benefit from the experience of other jurisdictions that have implemented standards such as the CIP-ARS for much longer than Alberta. For example, Alberta remains on CIP-ARS version 5 while the other jurisdictions have moved far beyond this version. Not only is version 5 more administratively focused, it also does not incorporate the continuous improvement of the later versions nor is it in alignment with current technology. This puts Alberta Market Participants at a disadvantage. Some of the version 5 CIP-ARS have not shifted the security of the AIES and have only increased the burden on Market Participants. It is difficult to prescribe the specific requirement to address cyber security given the speed at which cyber threats develop.

Alberta simply cannot track several years behind the rest of its peers in North America and maintain the necessary level of protection to the AIES. The standards need to include the real risks to the AIES. For example, telecom connection between control centres and substations is one of the greatest risks and is excluded from the CIP standards. FERC recently issued a notice of proposed rulemaking to NERC to develop a rule for network security monitoring internal to a CIP networked environment for high and medium impact Bulk Electric System Cyber Systems. This risk is not addressed in Alberta. The disconnect between versions also does not allow AESO auditors and compliance staff to leverage experience from other jurisdictions EROs such as WECC and BC Utilities Commission.

AltaLink recommends a taskforce be struck to develop a clear plan to move to the most current version of the CIP standards which need to be in force within the next 3-5 years. For any move to the most current version to be in place within the next 3-5 years, the effort needs to commence in 2022 and should be flexible enough to address the highest risk areas first.



***Recommendation 2: the entity responsible for interpretation should be identified and the interpretation and scope of the standards should be results-based with a focus on performance, risk management, and entity capabilities from end to end of the AIES rather than simply ensuring administrative tasks occur***

***Recommendation 3: provide clear information about when Market Participants can rely on NERC experience and guidance and when they cannot – and why they cannot***

***Recommendation 4: security standards need to address the largest risks and a taskforce should be struck to develop a plan to move to the most recent version of the CIP standards within the next 3-5 years***

***Recommendation 5: ARS should provide frameworks and outcomes desired while leaving enough flexibility to allow Market Participants to ensure they are adequately protecting the AIES with enough flexibility to update processes and technology as advancements in security and resiliency occur***

**ii. Timing and scheduling issues in development and implementation**

Provided the interpretation and scope are known and understood, the next challenge that arises is a clear understanding of the schedule and timing of the new or amended standard. Currently, the schedule and timing of the development and implementation of standards is inconsistent, changes without warning and lacks transparency. This creates immense difficulties for TFOs to obtain the necessary funding to support the capital projects required to implement new or amended standards and to ensure it has the funding for the ongoing operations required to meet the standards given the 2-3 years timing for tariff applications. For example, in October 2021, CIP-012 had no timeline indicated for development and approval in the AESO workplan nor was a draft rule provided so that pre-planning could occur. At that point in time, AltaLink's 2022-2023 General Tariff Application (GTA) was complete and was awaiting a decision by the AUC. AltaLink included costs for CIP-012 in its GTA but was challenged in this approach as there was no evidence this standard would forward in the 2022-2023 test period. Then in November 2021, a consultation process was struck for CIP-012 with an indication that it would be effective July 2022. Other standards, such as CIP-013, will require significant lead time which cannot be accomplished without clarity of what the standard will be in Alberta and when it is expected to be in force.

AltaLink appreciates that the last 24 months have created a great deal of uncertainty in the industry and world; however, the AESO workplan for development of standards has been ever changing with little explanation or transparency as to why. Nor has there been consultation with Market Participants as to the pressures on them related to the workplan. Certainty and transparency for the development schedule of new or amended ARS is required so that Market Participants are able to secure resources, technology, and labour to ensure compliance with the requirements.

As part of this approach, Market Participants should have the opportunity to provide feedback on the workplan and the priorities for new/amended standards. This will allow moving forward those changes that will make the most impact on the reliability and security of the AIES.

***Recommendation 6: develop a consistent and transparent schedule for new and amended ARS where reasons for changes are communicated to Market Participants and where Market Participants can provide feedback on the workplan***

**iii. The consultation and clarification process**

The most significant challenge for standard development and implementation is the interpretation of the standards which has a direct link to the next significant challenge: the lack of a clear understanding of the evidence expectations early enough in the process to allow Market Participants to develop efficient and effective compliance programs.

It is AltaLink's experience that standard development and compliance monitoring are separate functions at the AESO so that standards development, including consultation, is separate from compliance monitoring and Reliability Standard Audit Worksheet (RSAW) development. It is not clear who at the AESO has responsibility for interpretation.

It is also AltaLink's experience that this approach results in development consultation that does not include participation by the AESO compliance monitoring group. Consultation does not address interpretation or evidence expectations. Then to make matters worse, the RSAW process is disconnected from the standards development schedule. The outcome has been confusion and rework and additional costs.

The RSAWs are not issued early enough in the process nor are consulted on during the development phase to ensure that the evidence expectations for the audit align. RSAWs are often posted long after the compliance program has been developed and, as a result, creates rework to change the Market Participant's compliance approach mid-stream. Additionally, as there is no consultation or process for common understanding on the RSAW, Market Participants have no ability to ensure that the program designed for compliance with the standard, including the costly implementation of technology and labour, will meet the AESO auditor's expectations and will generate evidence that demonstrates the expected level of compliance. This essentially creates circumstances where Market Participants don't fully know the case it must meet to demonstrate compliance until after the first, or even second audit. The consequence can be programs that are not achieving the protection of the AIES for many years.

This lack of clarity up front also results in rework and additional costs for the compliance program. Given the regulatory nature of the process and the potential specified penalties that may result on identified suspected contraventions, it is only procedurally fair to know the case that must be met during the audit. Bringing forward the publication of the RSAW and adding them to the development phase to allow for consultation would allow for better clarity on the evidence expectations, improved development of the compliance program and allow for Market Participants to understand the expectations of auditors prior to an audit. It will also help ensure the focus of compliance monitoring is results-based and focused on performance, risk management, and entity capabilities.

This confusion and lack of clarity is particularly pronounced with the CIP standards. Market Participants were required to 'guess' the interpretation and evidence expectations (as it has never been clear to what extent NERC guidance is applicable). The result is the pilot audits showed gaps and the RSAW changed mid-stream through the audit cycle driving revamping of

programs and additional costs. Even now, after a full audit period, questions remain. The cost of rework alone – which is paid by the Alberta ratepayer – justifies a change in approach.

There is also a need for Market Participants to engage with the AESO and each other to *propose* changes to standards. The AESO has a critical role in this process of continuous improvement.

AltaLink proposes setting permanent Working Groups for standards (or logically grouped standards) which would allow for a transparent and collaborative process that supports timely development of standards and implementation including evidence expectations. This would allow for interpretation, implementation and evidence expectation issues to be dealt with before the standard comes into force and to resolve others that may arise after the fact. It would also facilitate further collaboration on implementation of ARS amongst Market Participants and the AESO for sharing of best in practice methods which would benefit the AESO. The makeup of the Working Group should allow decisions to be made. This is proposed to be more than the previous Alberta Reliability Compliance Discussion Group which at a minimum should be reinstated in the meantime.

If required, due to the sensitive nature of some discussions, Non-Disclosure Agreements or Confidentiality Agreements can be used (similar to those used for NERC). AltaLink recognizes that it is important to maintain independence for compliance monitoring; however, this concern can be managed. What is foremost is that all parties involved have a consistent understanding and interpretation of the standards, the implementation and evidence expectation. Market Participants can use this to cost effectively develop its compliance program focused on the purpose of the standard.

In addition to Working Groups for individual standards or group of standards, AltaLink recommends there be an overarching ARS Steering Committee comprised of representatives of the AESO (both development and compliance groups), Market Participants (including representation from TFOs, distribution facility owners, and generation facility owners), and the MSA. This would be similar to the NERC Standards Committee comprised of various Market Participants, EROs, and Regulators to help determine standards and drive the process – a similar approach should be adopted in Alberta. The Steering Committee should be for management level individuals at the various entities to discuss the overarching ARS strategy, including timing and priorities. Currently, the AESO seeks very little input from Market Participants on what they see as priority with regards to ARS. Some Market Participants have operations or sister companies in other jurisdictions that provide valuable insight into standards and their application in other jurisdictions.

***Recommendation 7: working groups with Subject Matter Experts (SME) from Market Participants, AESO, and MSA, including compliance SMEs, to work on the development and implementation of standards to ensure consistent and appropriate interpretation and evidence expectations or revised approach so that interpretation and evidence expectations are part of the consultation process***

***Recommendation 8: establish an ARS Steering Committee comprised of representatives of the AESO (both development and compliance groups), Market Participants (including representation from TFOs, distribution facility owners, and generation facility owners), and the MSA***

***Recommendation 9: include RSAWs at the development phase to allow for consultation on the evidence expectations to help ensure the focus of compliance monitoring is results-based and focused on performance, risk management, and entity capabilities***

**iv. Costs of ARS program**

The cost for the ARS program in Alberta includes the costs for the AESO, MSA and Market Participants. Ultimately the Alberta ratepayer covers a large extent of the costs. The issue of timing and lack of clarity on costs is discussed above. Here, AltaLink discusses the overall costs of ARS.

Costs to Market Participants are more than the cost of technology. It also includes staffing, creating or updating internal processes, procedures, and standards. It can require updating databases or other applications. The costs include training for operations and maintenance staff. Each change can have small to large impacts to Market Participants but all of it is break-in work that has a cost. In AltaLink's case, these costs are paid by the ratepayer. Even small administrative changes to a standard can create significant costs to a Market Participant.

During the consultation process there is typically no assessment of the cost impact on Market Participants to implement either a new standard or an amendment nor is there a transparent assessment by the AESO regarding benefit to the AIES. AltaLink recommends that an analysis or business case that explains the benefits to the AIES (beyond the cursory explanation in the cover letter of stakeholder engagement) including costs analysis would be beneficial.

Equally, creating the option for the Market Participants to provide a high-level costs assessment that includes costs to develop a compliance program, implement the standard, and to maintain compliance at the consultation phase would provide much needed transparency. For TFOs, this approach (along with more certainty on timing) would provide the necessary information to support justification of costs in rate proceedings.

***Recommendation 10: the AESO provide an analysis or business case that explains the benefits to the AIES that includes the cost impact of the change***

***Recommendation 11: include, on a voluntary basis, a high-level cost assessment by Market Participants for development, implementation, and maintenance at the consultation phase***

**v. The compliance monitoring and clarification process**

AltaLink appreciates that the ARS program has grown substantially over the years which has impacted the AESO, the MSA and Market Participants. The AESO's current compliance monitoring approach no longer achieves the underlying objective to support the reliability and security of the AIES.

As stated above, AltaLink supports an ARS program approach that is results-based with a focus on performance, risk management, and entity capabilities. In short, results-based using a risk-based audit approach rather than a focus on administrative compliance which achieves little to no real improvement in either reliability or security.

Risk-based auditing is a widely accepted audit standard for both internal and external audits. This is particularly necessary for compliance monitoring. AltaLink recommends that the AESO

adopt a risk-based auditing approach where the audit scope is based on the risk to the AIES. AltaLink has identified several ways to design a risk-based audit approach:

- a) Example from a financial statement perspective – what are the most material line items, test the processes and controls related to those line items. Non-material line items do not need to be tested – identify what matters to the AIES.
- b) Test high risk items differently than low risk items. High risk items – those that have risk to the security and reliability of the AIES – test substantively all of the evidence. For low risk to the AIES - test through interview only, or policy review.
- c) Test high risk items every cycle. Low risk items do not need to be tested every cycle by nature of the item being low risk.

Further, AltaLink submits during the audit, the AESO should approach the review of evidence differently. AltaLink submits that the AESO should consider:

- a) Audit against the intent of the requirement, not against administrative compliance. The audit should focus on the substance over form – results-based. The audit should review the evidence to determine whether the process covered the risk. If so, then the exact nature of the evidence, even if it is different than what is expected, should not result in a non-conformance. For example, identifying suspected contraventions because a mid-process step wasn't completely documented but where the result of the process is compliant is an inefficient use of time and creates additional administrative burden.
- b) The audit should focus on processes that have changed. Auditing processes that have remained the same from period to period adds no value to the safe, reliable and economic operation of the AIES.
- c) The audit should focus on evidence specifically related to the intent of the standard. For business purposes, the evidence may include information not directly related to the standard and that non-relevant information should be outside the scope of the audit.

When considering a risk-based model, AltaLink supports moving into closer alignment with the NERC process with particular attention paid to other entities in Canada and/or WECC. The NERC Risk-Based Compliance Monitoring and Enforcement Program (CMEP) can be used as a starting model. The risk-based approach should be applied to both self-certification and audit including the possibility of less frequent self-certifications or only require annual self-certification where it is justified by higher risk standards. The NERC compliance oversight plan uses both an inherent risk assessment (e.g., items such as transmission portfolio, system restoration, CIP-impact rating) and a qualitative performance assessment (internal controls, culture of compliance, compliance history, event data). Such an approach will encourage Market Participants to improve their compliance program and processes to reduce the amount and frequency of compliance monitoring.

Market Participants are subject to a 3-year audit cycle. AltaLink completed its first audit that involved CIP-ARS as well as Power System ARS. The Power System audit started in May 2020 and AltaLink completed its CIP audit in June 2021, meaning AltaLink was in ARS audit for 13 months. The 13 months does not include the time to prepare for the audit or the MSA referral process. If those activities are included, the entire process is closer to 18-22 months (or nearly 2 years).

Mitigation plans associated with the audit continue to be ongoing. The impact on the operations of the business and the cost of this approach for Market Participants is significant.

Several changes can be made to reduce the regulatory burden related to self-certification and audit that currently exists:

- The timelines for submission of evidence needs to permanently change given the number of applicable ARS and the volume of information required for the audit. AltaLink submits that the timeline to submit the annual self-certification and to submit initial evidence for an audit needs to increase to 90 days. Market Participants had the opportunity to experience this type of timing during the pandemic and quickly learned that it provides the necessary time to gather all evidence and prepare quality RSAWs which allowed for a more efficient process.
- Market Participants should have the option of selecting an onsite audit rather than the entirely document based audit currently used by the AESO. The audit can be structured similar to the NERC approach which typically takes around 100 days from notice to final audit report. The scope of the audit is provided in advance so that RSAWs and evidence packages are prepared only for what is required rather than for every requirement. The AESO could provide the auditors or could identify auditors (such as WECC auditors) that could do the onsite audits. The cost of paying an external auditor will be less for AltaLink than the current cost as it would reduce the time in audit by approximately 50%.

Another advantage to onsite audit is it can be used to decrease risk moving large amounts of BCSI from its designated storage location. The current approach is administratively burdensome and includes very sensitive information. Onsite audits also avoid some of the most administratively burdensome evidence such as the need to create screenshot with dates for each asset the firewall/password/system configuration change in order to demonstrate compliance.

- The timeline and structure of submitting and responding to information requests (IRs) should permanently change to incorporate the learnings obtained during the pandemic – namely that IRs are grouped so that they arrive only once a week during business hours. Market Participants should be allowed 10 business days for the first round or for sampling IRs and 5 business days for second round IRs. This allows for a higher quality response with more ability to manage the impact on the day-to-day operations of the business. Additionally, there should be periods within the audit where it is agreed that no IRs will be issued so that the Market Participant can catch up on other matters and can provide a rest to those involved in the audit.
- Requests for samples should follow the NERC sampling methodology or other equally clear and reasonable methodology which is consistent with risk-based auditing and avoids significant business interruption when very large sample request are made. There are other efficiencies in the NERC approach such as early identification of the audit scope that should be incorporated.
- Lessons learned from audits should be shared with Market Participants on a timely basis. This could easily be accomplished as part of the permanent standard working



groups. If there is a significant shift in evidence requirements, there needs to be a transitional period for Market Participants.

There are other opportunities to improve the compliance monitoring process.

The AESO has recently enacted a process called Advanced Self-Certification which is basically the opportunity for an early audit of a new or significantly amended standard. This may provide some assistance in certain cases; however, due to the timing, it doesn't assist with issue and related cost of rework. There needs to be a mechanism that allows a Market Participant to receive a review of its compliance approach prior to being exposed to non-compliance. This can occur prior to a standard coming into force or when the Market Participant is making a significant change to its program. The review would not protect the Market Participant from a future non-conformance as the program would have to be followed but it would assist in ensuring the *direction* of the compliance program aligns with the interpretation and evidence expectations of the standard.

Another change the AESO has recently put into place is the ARS Compliance Portal. AltaLink appreciates the change is to improve security; however, it has added additional inefficiencies for Market Participants. AltaLink is pleased that the AESO has committed to looking to expand the number of uses beyond the primary and alternate contacts and the Officer. This is a critical need. An unresolved issue is the Officer certification process. It is simply not practical to require the Officer to certify by having to sign into the portal. A solution is needed where the Officer can certify without using the portal.

Finally, improvements are needed when clarification is required. Currently, if a Market Participant requires clarification on a standard, it must submit a Request for Information (RFI). The RFI process is slow and in almost all cases does not provide the necessary clarity to the standard. The RFI process also does not address specific circumstances and currently there is no process for a Market Participant to check with the AESO on interpretation and application of the standards. RFIs need to be timely and responsive to the issue. If working groups are established, there may be less of a need to rely on the RFI process for clarification.

***Recommendation 12: adopt a risk-based auditing approach where the audit scope is based on the risk to the AIES***

***Recommendation 13: increase the submittal period for both self-certification and audit to 90 days after the audit period***

***Recommendation 14: allow Market Participants the option of using an on-site audit aligned with the approach taken by NERC which can reduce the amount of BCSI transferred***

***Recommendation 15: IRs are grouped and sent once per week during business hours and are given 10 or 5 business days to respond depending on the type of IR***

***Recommendation 16: adopt the NERC sampling methodology and other efficiencies of NERC audit approach such as identifying audit scope in advance***

***Recommendation 17: provide lessons learned in a timely manner preferably through the permanent working groups discussed above***

***Recommendation 18: establish a mechanism for program review based on consultation that allows for correction rather than the "early audit" approach currently available***

***Recommendation 19: the ARS Compliance Portal needs to include more users and allow the Officer to certify without using the portal***

***Recommendation 20: improve the RFI process so that it is timelier and more responsive***

In conclusion, AltaLink has identified multiple concerns with the current ARS development, implementation, and compliance monitoring process and through these identified concerns has provided recommendations and potential solutions to the AESO.

AltaLink applauds the AESOs willingness to review the ARS program. This effort, with collaboration, could also result in improvements with ISO Rules and even with the interaction with the MSA.

AltaLink looks forward to continuing to engage with the AESO throughout this stakeholder engagement process. Please contact the undersigned should you have any questions about the contents of AltaLink's comments.

Sincerely,



Jenette Yearsley  
VP Law & Compliance



# Stakeholder Comment Matrix – Nov. 23, 2021

Alberta Reliability Standards (ARS) Development & Monitoring | Existing ARS Program



Comment period:	<b>Nov. 23, 2021 to January 21, 2022</b>	Contact:	Alain Duguay
Comments from:	ATCO Electric Transmission	Phone:	1-587-372-1595
Date:	2022-01-21	Email:	<a href="mailto:alain.duguay@atco.com">alain.duguay@atco.com</a>

## Instructions

1. Please fill out the section above as indicated.
2. Please respond to the questions below and provide your specific comments.
3. **Please submit one completed comment matrix per organization.**
4. **Stakeholder comment matrices will be published on [aeso.ca](https://aeso.ca), in their original state.**
5. Email your completed comment matrix to [stakeholder.relations@aeso.ca](mailto:stakeholder.relations@aeso.ca) by **January 21, 2022**.

## Request for feedback

The AESO is seeking feedback from interested stakeholders on their perspectives as it relates to the current ARS Program, and on identifying and prioritizing areas of potential improvement opportunities. The AESO values stakeholder feedback and invites all interested stakeholders to provide their comments on the following questions. Please be as specific as possible with your responses. Thank you.

Questions		Stakeholder Comments
1.	What <u>challenges</u> do you see with the AESO's <b>existing ARS Program, specifically its approaches to standards development, implementation and monitoring</b> , and what <u>suggestions</u> would you offer to improve these approaches?	<u>See MP comments in sections i,ii, and iii below.</u>
	(i) Standards development approach	The Market Participant (MP)s need to have planned effective dates for each standard in queue for development as defined in the current ARS work plan. This is required to ensure the MPs can request both Capital and Operating funding ahead of the effective dates as part of the MPs General Tariff Application. The current work plan does not provide a solid guidance on possible upcoming ARS standard for development and approval.

Questions	Stakeholder Comments
(ii) Standards implementation approach	<p>The MPs requirement to develop and implement new compliance program for new ARSs can be extensive, and the MPs need sufficient time to ensure compliance program are vetted and tested prior to their effective dates.</p> <p>There is at times limited stakeholder discussions/sessions with regard to new upcoming standards and MPs stakeholder comment do not appear to have been included in the final standard.</p> <p>In addition, moving forward on planned effective dates for new standards will ensure the Alberta improves the protection of the Bulk Electric System (BES), and align Alberta, in terms of applicable standards in scope, to other registered entities within WECC and interconnected utilities in neighboring provinces and states.</p> <p>The AESO has provided limited guidance on what will meet and or demonstrate compliance for new standard, nor does the AESO provide direction to use NERC guidance where applicable.</p> <p>The standard RSAW documents are often provided close to the standard effective date. This is at time too late for the MPs to ensure their compliance program meets the requirements detailed in the standard RSAW documents. The RSAW documents should be provided well in advance of the effective date to aid the MP in ensuring compliance.</p>
(iii) Standards compliance monitoring approach	<p>The audit approach does not always consider the actual potential and/or actual impact of a suspected contravention has or may have on the reliability of the BES. A significant amount of the suspected contraventions are purely administrative or at times subjective on interpretation of the language within the requirements.</p> <p>The AESO does not provide recommendation on how to demonstrate compliance when suspected contravention are identified in their draft and or final audit reports.</p> <p>The AESO's should consider both in person and remote audits (similar to the NERC auditing formats).</p>

Questions	Stakeholder Comments
	<p>The AESO Audit sampling should be based on the NERC sampling guidelines.</p> <p>The AESO should provide feedback to the MPs mitigation plans actions to ensure that the proposed action will effectively mitigate the suspected contravention identified by the AESO. This would be to reduce the risk of the MPs working towards a solution which would not be acceptable by the AESO, and a subsequent repeat finding identified in a future audit.</p> <p>The AESO lessons learned session on prior audit findings are not timely. These should be held yearly or a report of areas of concern/general findings similar to the FERC staff report detail lesson learned from CIP reliability Audit should be issued <a href="https://www.ferc.gov/news-events/news/ferc-staff-report-details-lessons-learned-cip-reliability-audits-0">https://www.ferc.gov/news-events/news/ferc-staff-report-details-lessons-learned-cip-reliability-audits-0</a></p> <p>The AESO should provide the MPs at least 90 days' notice prior to a planned audit and also allow 90 days for the MPs to prepare the self-certification documentation. The MPs require this time to properly assess compliance and review evidence prior to submitting it to the AESO and reviewing if for self-certification.</p> <p>The AESO Audit Information Request (IR) process should be standardized. All IRs should be issued an agreed upon workday every week to enable sufficient time for the MP to respond and to ensure the MP continues to effectively operate and maintain the BES during an AESO audit.</p>
<p>2. If the AESO was to adopt a more risk-based approach to its ARS Program overall, what factors should it include in its approach (e.g. priority criteria, risk, impact, frequency, history)?</p>	<p>The AESO should work with WECC or other system operators, such as MRO (Midwestern Reliability Organization) , to adapt a risk based approach to develop a focused and targeted compliance monitoring program. This risk-based program is defined by NERC as the Risk-Based Compliance Monitoring and Enforcement Program (CMEP) is a risk based approach the AESO should consider. See links below:</p> <p><a href="https://www.nerc.com/pa/comp/CAOneStopShop/ERO%20Enterprise%20COP%20Presentation%20Slides.pdf">https://www.nerc.com/pa/comp/CAOneStopShop/ERO%20Enterprise%20COP%20Presentation%20Slides.pdf</a></p> <p><a href="https://www.mro.net/assurance/ComplianceMonitoring/Pages/default.aspx">https://www.mro.net/assurance/ComplianceMonitoring/Pages/default.aspx</a></p>

Questions	Stakeholder Comments
	<p>The risk approach should include as an example, but not limited to:</p> <ol style="list-style-type: none"> <li>1) MPs performance data</li> <li>2) Risk to the potential impact to the reliability BES</li> <li>3) MPs history of self-report, BES event and prior audit suspected contraventions</li> <li>4) New standards effective during the audit period</li> <li>5) Non-compliance trending based on AESO/WECC/NERC/FERC audits and compliance assessments</li> <li>6) MPs culture of compliance</li> <li>7) Agreement with MPs on areas of risk</li> </ol> <p>The frequency of ARS standard audits review should be based on the inherent risk of non-compliance and its potential impact to the BES.</p>
3.	<p>Do you know of a risk-based approach for standards development, implementation and compliance monitoring that has worked in other jurisdictions and might be applicable here? Please specify.</p> <p>No, the AESO should develop and implement standards as applicable to Alberta to ensure the continued reliability of the interconnect transmission system. The AESO should align the development and implementation of standards with other entities within WECC.</p> <p>See response 2 above with regards for a recommended a risk-based compliance monitoring approach.</p>
4.	<p>What <u>challenges</u> do you see with the <b>existing standards development processes</b> versus the approach identified in Q1, and what <u>suggestions</u> would you offer to improve these processes?</p> <p>Thee AESO needs to set realistic and timely effective dates and meet these target dates. It is understood that perhaps changes to the work plan are required to align the AESO with other area jurisdictions; however, the work plan is used to identify and establish project funding in upcoming work in regulatory filings. It is difficult for the MP to forecast resource needs without a plan and not proposed effective dates. The AESO needs to replace the “to be determined (TBD)” dates with proposed years for implementation to enable further development work on the regulatory applications.</p>

Questions	Stakeholder Comments
	<p>Perhaps the work plan could be utilized more effectively. The section “High Priority Standards for development” is often empty.</p> <p>The AESO needs to incorporate proposed RSAW development as part of the stakeholder Standards review process. As above, this would aid in ensuring the MP have the required evidence for compliance.</p> <p>The AESO needs to engage the MP expertise to develop and publish technical standards and guidance as applicable if the AESO does not intent to direct the MP to use the NERC technical guidance and implementation guides.</p> <p>The AESO needs to prioritize ARS standard development to ensure the Alberta BES risks are addressed and the MPs aligned with other entities within WECC as well as other interconnect MPs in other provinces and or state.</p> <p>The AESO should bring back the Alberta Reliability Compliance Discussion Group (ARCDG) working session to enable the MPs to ask clarification questions on upcoming standards. The AESO audit team should be participant of the ARCDG to ensure the MPs have an opportunity to ask clarification questions on compliance requirements.</p> <p>The AESO audit team should also participate in the development of new standards and RSAWs to ensure they provide guidance on audit evidence expectation.</p>
(i) Adoption/rejection criteria	<p>The AESO should use a process similar to NERC for standard development and approval. See sections 4.10 to 4.15 of the NERC Standard Processes Manual <a href="https://www.nerc.com/FilingsOrders/us/RuleOfProcedureDL/SPM_Clean_Mar2019.pdf#search=standard%20approval%20process">https://www.nerc.com/FilingsOrders/us/RuleOfProcedureDL/SPM_Clean_Mar2019.pdf#search=standard%20approval%20process</a></p>
(ii) Process effectiveness and efficiency	<p>The current process for review of standards in queue for development does not support needs to be clearer. The current process is not efficient and does not allow MP to effectively apply for funding and resources to support the development and implementation of future ARS standards.</p>

Questions		Stakeholder Comments
	(iii) Sufficient information to understand content and intent	The AESO either needs to endorse the NERC technical guidance and implementation guides or provide their own.
	(iv) Other	Concerning NERC Alerts, AESO should notify the MPs when NERC alerts are issued. This should include MPs input and or notified of potential risks.
5.	What <u>challenges</u> do you see with the <b>existing standards implementation processes</b> versus the approach identified in Q1, and what <u>suggestions</u> would you offer to improve these processes?	
	(i) Process effectiveness and efficiency	The AESO should have a documented approach on why certain standards are next in queue to be developed, while certain standards are planned to be developed much later, etc. The AESO should provide dates, or tentative years, on all standards in queue for development no matter the priority.
	(ii) Sufficient information to implement (e.g. Information Documents, NERC guidance, AESO technical sessions)	<p>The AESO either needs to formally endorse the NERC technical guidance and implementation guide, where applicable, or provide their own for each new ARS standard. The technical guidance must be incorporated into the AESO standards.</p> <p>AESO, along with the MP, should hold technical learning session and produce technical guidance document, similarly to the Midwest Reliability Organization documents on how to meet compliance.</p>
	(iii) Barriers to implement standards (e.g. lack of understanding of measures)	<p>The barriers to implementation are based on not having planned effective dates to ensure the MP has sufficient time to plan and request additional funding and/or resourcing, via the General Tariff Application process, to meet compliance deadlines.</p> <p>As per above, the AESO needs to provide RSAW documentation along with the draft's standards for input. This would significantly help the development of compliance programs for new standard by the MPs.</p>

Questions	Stakeholder Comments
	AESO should provide clear examples of acceptable evidence to demonstrated compliance and interpretation on standard requirements.
(iv) Other	
6. What <u>challenges</u> do you see with the <b>existing standards compliance monitoring program and its associated processes</b> versus approach identified in Q1, and what <u>suggestions</u> would you offer to improve this program and its processes?	
(i) Compliance monitoring program (CM program) effectiveness and efficiency (e.g. three-year cycle, monitoring tools)	<p>The AESO should maintain the 3 year audit cycle and a 90 day notification of audit.</p> <p>The AESO audits should only take 100 days from start to finish, including the audit report.</p> <p>The AESO should work with MPs to determine if the audits will be performed onsite, or a combination of onsite and offsite audits.</p> <p>The MPs should have 90 days to review and prepare their annual self-certifications.</p>
(ii) Monitoring processes' effectiveness and efficiency (e.g. audit, self-certification, evidence requirements)	<p><b><u>As per section 1 above.</u></b></p> <p>The AESO should provide recommendations on how to demonstrate compliance when suspected contraventions are identified in their draft and or final audit reports.</p> <p>The AESO's should consider both in person and remote audits (similar to the NERC auditing formats)</p> <p>The AESO Audit sampling should be based on the NERC sampling guidelines.</p> <p>The AESO should provide feedback to the MPs mitigation plans actions to ensure that the proposed action taken mitigate the suspected contravention identified by the AESO. This</p>

Questions	Stakeholder Comments
	<p>would aid to reduce the risk of the MPs working towards a solution which would not be acceptable by the AESO, and a subsequent repeat finding identified in a future audit.</p> <p>The AESO should provide the MPs at least 90 days' notice prior to a planned audit and also allow 90 days for the MPs to prepare the self-certification documentation. The MPs require this time to properly assess compliance and review evidence prior to submitting it to the AESO and reviewing if for self-certification.</p> <p>The AESO should send information request on the same day every week (i.e. every 5 business days consistently). This allows the MP to respond to the IRs and maintain operations of the BES.</p> <p>The AESO should take a risk-based approach to compliance monitoring and auditing (see section 2 above.</p> <p>The AESO should consider providing further recommendations and best practices in versus suspected contraventions, where appropriate.</p>
(iii) Sufficient information to comply	<p>The AESO needs to provide recommendations on how to comply with each suspected contravention detailed in audit reports.</p> <p>The AESO needs to provide further clarification information on what evidence or required information they need to see to review and or demonstrate when submitting information requests to MPs during an audit. The AESO needs to provide, where applicable, more than one suggestion for evidence compliance.</p> <p>The AESO should not use the draft audit reports as an information request i.e. The AESO has included suspected contravention in draft reports which have been removed from the final report. These suspected contraventions should be addressed reviewed prior to making it to any draft or final report.</p> <p>The AESO needs to provider further evidence requirements and or their interpretation of standard compliance.</p>



Questions	Stakeholder Comments
(iv) Sufficient information to prepare and submit information, including evidence	<p>Information requests should include enough information to explain why the information request is being asked to assist MPs in providing a response.</p> <p>The AESO should provide either an annual lesson learned report and or MP stakeholder session to share learnings from all MPs.</p>
(v) Barriers to follow the CM program	<p>The barriers to following the CM program is that the scope of audits is not risks based and therefore responding to audits information requests and reports takes a significant effort by the MPs and at times conflicts with ongoing operating and maintenance activities to support the BES.</p> <p>The Request for Information process with the AESO is not efficient. The AESO needs to provide timely responses, within 30 days, to the MPs who request information to the AESO to enable compliance clarification.</p>
(vi) Barriers to adhere to monitoring processes and timelines	<p>Resourcing and conflicting priorities. It is the MPs responsibility to ensure a safe and reliable operations and maintenance of the BES, which includes compliance. Many of the compliance requirements have been imbedded within current MPs processes.</p>
(vii) Other	
7. What area of knowledge transfer (e.g. training, education and awareness) could the AESO bolster to better equip market participants to prepare for and adhere to compliance monitoring processes?	<p>Provide clear technical guidance and standards for each standard, and or provide clarity if the MP should be utilizing NERC Guidance or any other guidance on the approved standards.</p> <p>Annual Lesson Learned on AESO initiated ARS audits to discuss some area of concern, repeat findings and other observations. This would aid with the continuous improvement of the market participant compliance program.</p>
8. What is the <u>one</u> thing you would recommend the AESO do in 2022 – if you	<p>Provide clear evidence expectation and how each MP will need to demonstrate compliance for all applicable standards.</p>

Questions		Stakeholder Comments
	could only do one thing next year – to enhance and drive efficiencies in the standards development, implementation and compliance monitoring approaches and processes?	
9.	For the upcoming consultation kicking off in 2022, please rank the following work streams in your preferred priority order:	Please note that all of these work streams are a priority to address.
	(i) Development approach	1
	(ii) Implementation approach	3
	(iii) Compliance monitoring approach	4
	(iv) Development processes	5
	(v) Implementation processes	6
	(vi) Compliance monitoring processes	2
	(vii) Other	
10.	Additional comments	

Thank you for your input. Please email your completed matrix to: [stakeholder.relations@aeso.ca](mailto:stakeholder.relations@aeso.ca)

# Stakeholder Comment Matrix – Nov. 23, 2021

Alberta Reliability Standards (ARS) Development & Monitoring | Existing ARS Program



Comment period:	Nov. 23, 2021 to Dec. 17, 2021	Contact:	Shannon Ferdinand
Comments from:	Capital Power Corporation	Phone:	780-392-5442
Date:	2021/12/17	Email:	<a href="mailto:sferdinand@capitalpower.com">sferdinand@capitalpower.com</a> ; <a href="mailto:CorporateCompliance@capitalpower.com">CorporateCompliance@capitalpower.com</a>

## Instructions

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## Request for feedback

The AESO is seeking feedback from interested stakeholders on their perspectives as it relates to the current ARS Program, and on identifying and prioritizing areas of potential improvement opportunities. The AESO values stakeholder feedback and invites all interested stakeholders to provide their comments on the following questions. Please be as specific as possible with your responses. Thank you.

	Questions	Stakeholder Comments
1.	What <u>challenges</u> do you see with the AESO's <b>existing ARS Program, specifically its approaches to standards development, implementation and monitoring</b> , and what <u>suggestions</u> would you offer to improve these approaches?	<p>The North American bulk power system is becoming more complex and interconnected. This transition will require industry and regulators to rethink traditional approaches to ensuring the reliability and resiliency of the grid. With the AESO's recent Alberta Reliability Standard (ARS) Development and Monitoring initiative, Capital Power recognizes and appreciates the AESO's proactivity in being part of this change. More specifically, Capital Power welcomes efforts by AESO to engage Market Participants in a comprehensive consultation on the ARS framework in its entirety, including standards development, standards adoption, compliance monitoring, enforcement, and alignment with other reliability regulators such as the British Columbia Utilities Commission (BCUC), Ontario's Independent Electric System Operator (IESO), and the North American Electric Reliability Corporation (NERC).</p> <p>Capital Power owns and operates 18 facilities (Coal, Natural Gas, Wind, Solar) across four NERC-US regions and three Canadian provinces that are subject to some form of Reliability Standards (RS).</p>

Questions	Stakeholder Comments
	<p>Based on this experience Capital Power has observed the following opportunities for improvement specific to the existing AESO ARS Program, with each of these areas is elaborated on in the sections below:</p> <ol style="list-style-type: none"> <li>1. Alignment with the risk-based NERC Reliability Standards Compliance Monitoring and Enforcement Program (CMEP)</li> <li>2. An increased focus on critical grid reliability issues and a decrease in complexities, redundancies, and administrative compliance</li> <li>3. An increase in coordinated stakeholder engagement opportunities between industry, the Market Surveillance Administrator (MSA), and the AESO standards development and compliance monitoring teams</li> </ol>
(i) Standards development approach	<p><b>Alignment of the Alberta Reliability Standards program with the NERC Reliability Standards program<sup>1</sup>.</b></p> <p>Alberta is behind<sup>2</sup> other regions in the adoption and implementation of the NERC Reliability Standards and Glossary Definitions. When, and if, the AESO adopts a NERC standard, it is often significantly modified and years behind other regions. Further adding to the complexity, is the AESO's decision to forego certain Reliability Standards and instead utilize ISO Rules to implement certain reliability objectives (i.e. <a href="#">AESO MOD-025 AUC notice</a>).</p> <p>The time lag, Alberta-centric modifications, and the introduction of grid reliability objectives through both Market Rules and Reliability Standards has resulted in unnecessary complexities and inefficiencies (Red tape) including, but not limited to:</p>

<sup>1</sup> [NERC Compliance Monitoring and Enforcement Program](#)

<sup>2</sup> [Alberta Reliability Standards Work Plan - Nov 2021](#)

Questions	Stakeholder Comments
	<ul style="list-style-type: none"> <li>Increased costs<sup>3</sup> for Market Participants with no significant benefit to grid reliability</li> <li>Redundant expenditure of resources by AESO and Market Participants on the development of a separate set of Reliability Standards</li> <li>The risk to create ARS and ISO market rules with different compliance outcomes than NERC reliability rules (i.e., 'or' changed to 'and', 'year' vs. 'calendar year'), which has the potential to increase compliance risk and regulatory burden with little to no benefit to grid reliability <ul style="list-style-type: none"> <li>For example, version 3 of <a href="#">ARS VAR-002</a> R3 required generator operators to notify the AESO within 30 minutes of "a status change of the automatic voltage regulator (AVR), voltage regulating system or alternative voltage controlling device <b>and</b> power system stabilizer (PSS)". This language could imply that a generator operator is only required to notify the AESO in the case of BOTH conditions being met. In contrast, the NERC version of the standard uses "<b>or</b>" when prescribing the same compliance event threshold and therefore, more clearly requires the applicable entity to notify the grid operator in the event of EITHER condition. While this inconsistency did not create an increased burden for the Market Participant, it did result in a situation where the AESO may not have been notified by an entity unless BOTH stated conditions were met which could have impacted the reliable operation of the grid. This inconsistency was later addressed in 2021 when the AESO released version 4.1 of the standard.</li> <li>The AESO decided not to adopt MOD-025 due to overlap with existing Market Rules (502.6 &amp; 502.16). Capital Power has noticed inconsistencies between these ISO rules and the associated NERC standard. Sections <a href="#">502.6</a> that uses "5 years" and <a href="#">502.16</a> uses "5 calendar years" when prescribing the required model validation interval. The equivalent <a href="#">NERC MOD-025</a> standard allows up to 66 calendar months between verifications. These inconsistencies, though minor, within the ISO rules and between the AESO and NERC increase the interpretation and implementation</li> </ul> </li> </ul>

<sup>3</sup> Increased costs for Market Participants include but are not limited to: Resources spent supporting the development of ARS, when NERC standards that mitigate the grid reliability risk already exist, inefficient use of resources due to inability to effectively utilize NERC guidance, lessons learned, white papers etc... In addition, for those entities with assets outside of Alberta, increased costs associated with managing an Alberta based RS program for Alberta assets alongside a NERC program for the rest of the assets.

Questions	Stakeholder Comments
	<p>complexity for Market Participants and can increase the risk of administrative non-compliance.</p> <ul style="list-style-type: none"> <li>• Inability to utilize existing NERC resources (NERC Guidance, Webinars, Lessons Learned, White Papers etc.) due to the development of Alberta-only standards and the associated time lag to adopt changes to existing Reliability Standards</li> <li>• Increased grid reliability risk due to regulatory lag <ul style="list-style-type: none"> <li>○ For example, the AESO is currently on the AB version of CIP-003-AB-5 while NERC and other NERC aligned regions are on CIP-003-8 with a potential version 9 / 10 in development (<a href="#">Project 2020-03</a> and <a href="#">Project 2016-02</a>). The changes in the NERC Standard between versions 5 and 8 and those being contemplated in version 9/10 are significant, and in direct response to evolving security risks that may impact grid reliability. The AESO's time lag in this area is a potential risk to the reliability of the Alberta Interconnected Electric System.</li> </ul> </li> <li>• Increased complexity and resource expenditure when using third parties to support compliance, as vendors are most familiar with and often reference NERC standards but may not be fully versed on Alberta Reliability Standards</li> </ul> <p>While the Government of Alberta's Red Tape Reduction Act does not include ARS, the general notion of red tape reduction should be applied here, as it is also in-line with AESO's efficiency mandate under the Electric Utilities Act.</p> <p>As such Capital Power recommends that the AESO align the ARS program with the NERC Reliability Standards program<sup>4</sup> and conduct a comprehensive consultation process that includes a series of discussions with all stakeholders to ensure a more efficient, reliable, and investor friendly Alberta Interconnected Electric System (AIES).</p>
(ii) Standards implementation approach	Please see response in Q1(i).

<sup>4</sup> [NERC Compliance Monitoring and Enforcement Program](#)

Questions	Stakeholder Comments
(iii) Standards compliance monitoring approach	<p>Capital Power encourages the AESO to review and adopt a risk-based approach to compliance monitoring similar to NERC regions and other Canadian provinces that follow the NERC Compliance Monitoring and Enforcement Program (CMEP).</p> <p>In Capital Power's experience, a risk-based Reliability Standards program has the following elements:</p> <ul style="list-style-type: none"> <li>• Development of standards and guidance, in collaboration with industry, based on grid reliability risk factors</li> <li>• Assessment of an entity's risk to the grid based on Inherent Risk Assessments (IRA) and entity performance</li> <li>• Use of general grid risks, regional grid risks, <u>and an</u> entity's IRA to develop a Compliance Monitoring and Oversight Plan <ul style="list-style-type: none"> <li>○ Entities with high risk to grid and / or history of non-compliance may be subject to more frequent and larger scope audits and other compliance monitoring activities</li> <li>○ Entities deemed low risk are subject to less frequent audits and / or self-certifications on fewer standards</li> </ul> </li> <li>• Strong focus on internal controls, internal compliance plans and self-reporting</li> <li>• Self-certifications and /or audits focused on high-risk / high-impact reliability issues vs. low-risk administrative non-compliance</li> </ul> <p>For example, in regions outside of Alberta, Capital Power's assets undergo audits every 6+ years (based on risk) and / or self-certifications on a select small number (i.e., 1-2) high risk standards every 1-2+ years. Audits, when conducted, are focused on reliability and resiliency vs. administrative compliance.</p> <p>In contrast, Capital Power's Alberta assets, without consideration of inherent risk (i.e., size, location, resource type, performance history), are all subject to a comprehensive annual self-certification process and triennial audits on all applicable standards and requirements<sup>5</sup>.</p>

<sup>5</sup> Note – based on the AESO's [Core Audit Requirements](#) (updated November 16, 2021) the AESO has identified ALL Reliability Standards and requirements applicable to Capital Power entities as 'CORE'.

	Questions	Stakeholder Comments
		<p>In Capital Power's experience, these audits include a review of almost all of an entity's applicable standards and requirements. The AESO's current approach to compliance monitoring results in a significant amount of cross functional resources (time, money, attention) being focused on low-risk assets, low-risk activities, and administrative compliance with limited reliability or resiliency benefits to the grid.</p> <p>Capital Power encourages the AESO to review and adopt a risk-based approach to compliance monitoring like that found in NERC regions and Canadian provinces that follow the NERC CMEP. Approaching compliance from a risk-based perspective allows entities and regulators to remain focused on critical reliability issues vs. administrative compliance.</p> <p>For reference, please see the contrast between the AESO 2021 Core Audit Requirements (<a href="#">LINK</a>), the IESO 2021 CMEP (<a href="#">LINK</a>) and the NERC 2021 CMEP (<a href="#">LINK</a>). As evidenced by these documents, the AESO's ARS monitoring program has identified nearly all ARS (applicable to the Generation Owner / Generator Operator) as core audit requirements whereas NERC and the IESO have identified a subset of standards and requirements to monitor and based on risk.</p>
2.	If the AESO was to adopt a more risk-based approach to its ARS Program overall, what factors should it include in its approach (e.g., priority criteria, risk, impact, frequency, history)?	<p>Capital Power encourages the AESO to review and adopt a risk-based approach to compliance monitoring similar to NERC regions and NERC Aligned Canadian provinces (i.e., British Columbia and Ontario). Approaching compliance from a risk-based perspective allows entities and regulators to remain focused on critical reliability issues as opposed to administrative compliance.</p> <p>Capital Power would like the AESO to consider the following:</p> <ol style="list-style-type: none"> <li>1. Align Alberta Reliability Standards with NERC Reliability Standards Development and Implementation <ol style="list-style-type: none"> <li>a. Adopt NERC standards in a timely fashion and reconcile additional regional requirements via Market Rules or regional Reliability Standards</li> <li>b. Re-map previously implemented Market Rules that overlap with NERC Reliability Standards and integrate reliability objectives via the Reliability Standards (i.e., Implement: MOD-025, MOD-026, MOD-027, MOD-032, Retire overlapping requirements in ISO Rule 502.6 &amp; 502.16)</li> <li>c. Promote AESO expertise on NERC standards and compliance monitoring approach via AESO representation on NERC Standards Drafting teams and other NERC / WECC committees</li> </ol> </li> </ol>



Questions	Stakeholder Comments
	<div>2. Integrate Compliance Monitoring and Targeted / Risk-Based Oversight Program</div> <div><div>a. Create Compliance Oversight Plans for each entity based on Risk Profile and Key Risk Areas:</div><div><div>i. Work with industry to complete entity specific Inherent Risk Assessments (size, fuel type, connection location etc.) and Performance assessments (internal controls, culture of compliance, compliance history, event data etc.)</div></div><div>b. Adopt risk-based oversight strategy and monitoring tools</div><div><div>i. End non-risk based annual self-certifications on all standards for all entities</div><div>ii. Replace non-risk based triennial audits with monitoring (i.e., audits, self-certifications, periodic data submittals) based on risk (i.e., Standards that address higher grid reliability risks may be subject to more frequent audits, entities with low inherent risk may be subject to less frequent audits)</div></div><div>Potential Risk Based Oversight Strategies<sup>6</sup>:</div><div><div><div>1</div><div>Higher inherent risk without demonstrated positive performance</div><div>1 – 3 Years</div></div><div><div>2</div><div>Higher inherent risk with demonstrated positive performance</div><div>2 – 4 Years</div></div><div><div>3</div><div>Moderate inherent risk without demonstrated positive performance</div><div>3 – 5 Years</div></div><div><div>4</div><div>Moderate inherent risk with demonstrated positive performance</div><div>4 – 6 Years</div></div><div><div>5</div><div>Lower inherent risk without demonstrated positive performance</div><div>5 – 7 Years</div></div><div><div>6</div><div>Lower inherent risk with demonstrated positive performance</div><div>6 + Years</div></div></div></div>

<sup>6</sup> NERC ERO Enterprise COP Presentation Slides: [LINK](#)

	Questions	Stakeholder Comments
		Please see responses in Q1(i) and Q1(iii) for additional details.
3.	Do you know of a risk-based approach for standards development, implementation and compliance monitoring that has worked in other jurisdictions and might be applicable here? Please specify.	<p>Capital Power's encouragement that the AESO review and adopt a risk-based approach to compliance monitoring is based on observations from experiences with operating in NERC regions and NERC Aligned Canadian provinces (BC and Ontario). Though each province is slightly different, Capital Power has summarized some of the positive elements from both BC and Ontario for consideration:</p> <ul style="list-style-type: none"> <li>• Adoption of all NERC Standards within one year of NERC approval (1:1 adoption)</li> <li>• Implementation of all NERC Standards within one to two years of NERC implementation dates</li> <li>• Use of separate regional Reliability Standards or Market Rules to address additional regional reliability risks not fully addressed by NERC standards, which allows for some standardization to meet provincial specific requirements</li> <li>• Forego non-risk based self-certifications and triennial audits</li> <li>• Alignment of compliance monitoring with NERC risk-based compliance monitoring approach, which may include (see response to (iii) and 2 for examples of elements of a risk-based monitoring approach). Resources: <a href="#">NERC 2022 ERO CMEP</a>, <a href="#">ERO Enterprise COP Presentation Slides</a>, <a href="#">NERC ERO Enterprise Guide for Compliance Monitoring</a>, <a href="#">WECC Process for Risk-Based Compliance Oversight</a></li> <li>• Increase knowledge transfer and program efficiencies through increasing use of NERC resources (Reliability Standards Audit Workbooks, Guidance, Lessons Learned, White Papers etc.)</li> </ul> <p>Resources for consideration:</p> <ul style="list-style-type: none"> <li>• <a href="#">NERC One-Stop Shop (Compliance Monitoring &amp; Enforcement Program)</a></li> <li>• <a href="#">OEB Review Process – Reliability Standards and criteria</a></li> <li>• <a href="#">IESO Reliability Standards Framework</a></li> <li>• <a href="#">IESO Market Rules &amp; Manuals Library</a> – Please see Market Rules Chapter 5 and Market Manuals 11 for Reliability Compliance</li> <li>• <a href="#">BCUC Reliability Standards Assessment</a>– Please see BCUC Order R-21-21 and R-21-21 Attachment-B</li> </ul>

	Questions	Stakeholder Comments
4.	What <u>challenges</u> do you see with the <b>existing standards development processes</b> versus the approach identified in Q1, and what <u>suggestions</u> would you offer to improve these processes?	If the AESO changes their approach to Standards Development, Implementation and Monitoring, it follows that processes would change. Capital Power believes the first step is to determine the approach and then align the processes, as appropriate. Please review prior responses (Q1i, Q2, Q3) for Capital Power's recommendations regarding approach. Capital Power would like to be actively involved in future consultation opportunities on both approach and process.
	(i) Adoption/rejection criteria	Please see response in Q1(i).
	(ii) Process effectiveness and efficiency	<p>The existing ARS Standards Development process creates a duplication of efforts already expended by various parties via NERC's Standards Development and Implementation Process.</p> <p>To resolve these inefficiencies and re-direct attention to more critical reliability issues, Capital Power's primary recommendation is the complete adoption of NERC Reliability Standards in the Alberta region.</p> <p>This new approach would lead to different processes and Capital Power would like to be actively involved in opportunities to provide feedback on appropriate processes to consider.</p> <p>If the AESO's approach to Standards Development and Implementation does not change, Capital Power offers the following recommendations for process improvements on the current ARS development approach:</p> <ul style="list-style-type: none"> <li>• Facilitate a Standards Drafting Team to develop ARS to include market participants and the AESO, like the process used by NERC.</li> <li>• Allow Market Participants (based on entity level registration) to vote and comment on drafts of standards, RSAWs, and related reference material prior to approval and implementation.</li> <li>• Allow Market Participants to be provided the ability (based on registration) to vote and comment on drafts of the standards and related reference material prior to approval and implementation. Please reference NERC Reliability Standard Development process for reference: LINK. Note that CP prefers the AESO use already developed NERC Standards.</li> </ul>

	Questions	Stakeholder Comments
	(iii) Sufficient information to understand content and intent	<p>Currently, materials relating to stakeholder engagements that began two (2) or more years ago are removed from the <a href="#">AESO website</a>.</p> <p>We request that the AESO make available <b>all</b> materials associated with the standard development history available under the “Related Documents and Pages” section of each Reliability Standard.</p> <p>This would enhance the transparency of the ARS development / implementation process as well as increase accessibility of the ARS relevant materials. Consequently, the Market Participants would benefit from understanding the full history / context of the standard development through referencing AESO’s consideration of and response to industry comments.</p> <p>As previously mentioned, if the AESO aligned their approach and processes with NERC, this recommendation would not be as relevant as Market Participants would utilize NERC resources (guidance, white papers, lessons learned, webinars etc.). This alignment would create significant synergies and cost savings for both the AESO and Market Participants, allowing both to redirect resources to higher risk grid reliability and compliance initiatives.</p>
	(iv) Other	
5.	What <u>challenges</u> do you see with the <b>existing standards implementation processes</b> versus the approach identified in Q1, and what <u>suggestions</u> would you offer to improve these processes?	If the AESO changes their approach to Standards Development, Implementation and Monitoring, it follows that processes would change. Capital Power believes the first step is to determine the approach and then align the processes, as appropriate. Please review prior responses for Capital Power’s recommendations regarding approach.
	(i) Process effectiveness and efficiency	Please see response in Q1(i).
	(ii) Sufficient information to implement (e.g., Information Documents, NERC guidance, AESO technical sessions)	Please see response in Q1(i).
	(iii) Barriers to implement standards (e.g., lack of understanding of measures)	Please see response in Q1(i).
	(iv) Other	

	Questions	Stakeholder Comments
6.	<p>What <u>challenges</u> do you see with the <b>existing standards compliance monitoring program and its associated processes</b> versus approach identified in Q1, and what <u>suggestions</u> would you offer to improve this program and its processes?</p>	<p>If the AESO changes their approach to Standards Development, Implementation and Monitoring it follows that processes would change. Capital Power believes the first step is to determine the approach and then align the processes, as appropriate. Please review prior responses for Capital Power's recommendations regarding approach. Capital Power would like to be actively involved in future consultation opportunities on both approach and process.</p>
	<p>(i) Compliance monitoring program (CM program) effectiveness and efficiency (e.g., three-year cycle, monitoring tools)</p>	<p>Please see prior responses related to approach. Capital Power believes that first and foremost the AESO needs to change its CMEP approach. From this change, a change in processes should follow.</p> <p>If the approach is not changed, in reference to the existing CMEP processes, Capital Power offers the following:</p> <ol style="list-style-type: none"> <li>1. <b>Evidence Submittal</b> - If the AESO continues with a non-risk-based audit approach – the current 90-day evidence submittal period should be retained indefinitely. If the AESO moves to a risk-based audit approach (i.e., auditing of 1-2 high risk standards), a 30-day evidence submittal period (similar to NERC regions) would be sufficient. This will allow for more time to be spent on higher risk CM activity and should positively benefit grid reliability.</li> <li>2. <b>Information and Data Requests</b> <ol style="list-style-type: none"> <li>a. <b>Organization</b> – In Capital Power's experience, NERC regulators consolidate Information Requests/Data Requests and provide those to the entity all at once (e.g., In CP's 2019 VAR-002 Spot Audit, SERC issued one document with multiple IR questions). This ensures similar language in all IRs and removes redundant IRs (i.e., one auditor asking for the same information as another)</li> <li>b. <b>Turnaround time</b> - Should be related to the complexity of the IR (e.g., In Capital Power's last WECC audit, 2 to 10 days were given to respond to the IR depending on the complexity)</li> </ol> </li> <li>3. <b>Audit Reports and Findings</b></li> </ol>

	Questions	Stakeholder Comments
		<p>a. Language – The AESO should adopt audit finding language (i.e., Area of Concern, Recommendation, Potential Violation) similar to NERC regions.</p> <p>b. Mitigation Plans – Mitigation Plans should be focused on reliability of the grid and be a collaborative effort between the AESO and the Market Participant. Mitigation Plans should be approved within a specified period (i.e., 90 days) to ensure that they meet the reliability objective of the related standard. It is not in the best interest of the grid if Market Participants have to wait until the next triennial audit to see if changes made meet compliance expectations. Resource: <a href="#">NERC Registered Entity Self-Report and Mitigation Plan</a></p> <p>c. High level audit findings and Self-Reports should be published with enough information for others to learn from the event (CIP excluded). Resource: <a href="#">NERC Enforcement and Mitigation Page</a> / <a href="#">NERC Compliance Exception Workbook</a></p>
	(ii) Monitoring processes' effectiveness and efficiency (e.g., audit, self-certification, evidence requirements)	Please see response in Q1(iii).
	(iii) Sufficient information to comply	Please see response in Q4(iii).
	(iv) Sufficient information to prepare and submit information, including evidence	Please see response in Q4(iii).
	(v) Barriers to follow the CM program	Please see response in Q1(iii).
	(vi) Barriers to adhere to monitoring processes and timelines	Please see response in Q1(iii).
	(vii) Other	
7.	What area of knowledge transfer (e.g., training, education, and awareness) could the AESO bolster to better equip market	As previously mentioned, if the AESO aligned their approach and processes with NERC, Market Participants would more effectively be able to leverage NERC resources (guidance, white papers, lessons learned, webinars etc.).

	Questions	Stakeholder Comments
	<p>participants to prepare for and adhere to compliance monitoring processes?</p>	<p>This alignment would allow for greater and more efficient knowledge transfer. In addition, the alignment would increase clarity, synergies and result in cost and other resource savings for both the AESO and Market Participants allowing both to redirect saved resources to higher risk grid reliability and compliance initiatives.</p> <p>In addition to alignment with NERC, Capital Power believes the AESO should adopt an outreach and engagement program like the IESO's quarterly <a href="#">Reliability Standard Steering Committee</a> meetings.</p> <p>These meetings are open to Market Participants and are often attended by members of the standards development, monitoring, and enforcement teams at the <a href="#">Ontario Independent Electricity System Operator (IESO)</a> / <a href="#">Market Assessment and Compliance Division (MACD)</a> and the Ontario Energy Board (OEB). The IESO's alignment with NERC and Northeast Power Coordinating Council (NPCC) means that these meetings are not spent re-writing drafted standards and instead are more efficiently focused on topics more imperative to grid reliability.</p> <p>Further, the IESO's alignment with NERC and NPCC means that they can spend resources to ensure IESO and MACD staff are Subject Matter Experts on NERC standards and are equipped to transfer knowledge to IESO Market Participants.</p>
8.	<p>What is the <u>one thing</u> you would recommend the AESO do in 2022 – if you could only do one thing next year – to enhance and drive efficiencies in the standards development, implementation and compliance monitoring approaches and processes?</p>	<p>Capital Power recommends a phased in approach to making these improvements.</p> <p><b>Phase 1 (2022):</b></p> <ul style="list-style-type: none"> <li>○ Resume AESO facilitated ARS meetings w/ industry. Capital Power recommends that these meetings include the AESO Standards Development team, the AESO Compliance Monitoring team and the MSA RS enforcement team</li> <li>○ Refocus the 2022 AESO Core Audit requirements to focus on higher-risk Reliability Standards and to align with NERC and IESO (see comments in 1(iii)). Use revised core audit requirements to develop a 2022 risk-based audit scope.</li> <li>○ Forego annual self-certification and redirect attention and resources to the development of an Alberta IRA at the entity level <ul style="list-style-type: none"> <li>○ Using NERC / WECC as a guideline, collaborate with industry to complete IRAs on all Market Participants at the entity level</li> </ul> </li> </ul>

	Questions	Stakeholder Comments
		<ul style="list-style-type: none"> <li>○ Map and perform a gap analysis of existing Alberta Reliability Standards and Reliability focused Market Rules to NERC standards.</li> <li>○ Collaborate with industry to prioritize program re-design based on outcome of mapping exercise and gap analysis</li> </ul>
`	For the upcoming consultation kicking off in 2022, please rank the following work streams in your preferred priority order:	
	(i) Development approach	<p>3</p> <p>Capital Power understands that, due to the complexity that has been created in the AESO Reliability Standards program, redesigning the development and implementation approach may also be complicated.</p> <p>Capital Power would like the AESO to consider adopting new / revised NERC standards on a go-forward basis and retiring redundant ISO Market Rules as appropriate. Within two years' time, Capital Power would like to see the full set of NERC Standards rolled out in Alberta. Capital Power notes that, similar to BC, the AESO may want to consider a service agreement with WECC to facilitate this change.</p>
	(ii) Implementation approach	5
	(iii) Compliance monitoring approach	<p>1</p> <p>Capital Power believes that a change in the AESO's Compliance Monitoring Approach and processes can be achieved easily and without significant impact to the program. Capital Power believes that in making the changes recommended, the AESO would be able to redirect some resources to the re-design of the Standards Development and Implementation approach and processes.</p>
	(iv) Development processes	4
	(v) Implementation processes	6
	(vi) Compliance monitoring processes	2



	Questions	Stakeholder Comments
	(vii) Other	
10.	Additional comments	<p>Capital Power recognizes that the suggestions provided are focused on a significant overhaul of the existing AESO Standard Development, Implementation and Monitoring Program. While Capital Power believes that such a change is in the best interest of the Alberta Interconnected Electric System, it is understood that such changes will take time. In the interim, additional comments and suggestions on recommendations related to the existing ARS program include:</p> <ul style="list-style-type: none"> <li>○ ARS should not be approved or applicable without accompanying Reliability Standards Audit Workbook (RSAW), and Information Documents. Stakeholders should have the ability to comment on these documents alongside the standard prior to approval / implementation <ul style="list-style-type: none"> <li>○ Note that the current lag would be resolved with NERC CMEP alignment</li> </ul> </li> <li>○ Standardized applicability – currently ARS are applicable to Generation Owners / Generator Operators (GO/GOP) based on several different applicability criteria<sup>7</sup>. In contrast, in every other region that Capital Power operates, the applicability of Reliability Standards stems from whether an entity is part of the Bulk Electric System (BES) and then may get more discrete based on equipment / inclusions / exclusions from there. CP recommends the AESO standardize the applicability of ARS based on the NERC BES definition.</li> <li>○ In December 2020, the AESO stopped facilitating Alberta Reliability Compliance Discussion Group (ARCDG) meetings and moved to as needed stakeholder consultation sessions. Capital Power recommends the immediate re-introduction of the ARCGD platform, with a necessary change in that the AESO / MSA participants should include the Standards Development team, relevant standard AESO Subject Matter Experts, AESO Compliance Monitoring Team, and the MSA ARS Enforcement team. The objective of these meetings should be open and</li> </ul>

<sup>7</sup> Some ARS are applicable beginning at the 4MW level which does not correlate with risk to the grid.

	Questions	Stakeholder Comments
		transparent communication. See also: Reference to Ontario RSSC meetings in Q7 above.

Thank you for your input. Please email your completed matrix to: [stakeholder.relations@aeso.ca](mailto:stakeholder.relations@aeso.ca)

# Stakeholder Comment Matrix – Nov. 23, 2021

Alberta Reliability Standards (ARS) Development & Monitoring | Existing ARS Program



Comment period:	Nov. 23, 2021 to Dec. 17, 2021	Contact:	Tim Vandermey
Comments from:	Cenovus Energy Inc	Phone:	403-766-2583
Date:	2022-01-19	Email:	tim.vandermey@cenovus.com

## Instructions

1. Please fill out the section above as indicated.
2. Please respond to the questions below and provide your specific comments.
3. **Please submit one completed comment matrix per organization.**
4. **Stakeholder comment matrices will be published on [aeso.ca](https://www.aeso.ca), in their original state.**
5. Email your completed comment matrix to [stakeholder.relations@aeso.ca](mailto:stakeholder.relations@aeso.ca) by **Dec. 17, 2021**.

## Request for feedback

The AESO is seeking feedback from interested stakeholders on their perspectives as it relates to the current ARS Program, and on identifying and prioritizing areas of potential improvement opportunities. The AESO values stakeholder feedback and invites all interested stakeholders to provide their comments on the following questions. Please be as specific as possible with your responses. Thank you.

Questions		Stakeholder Comments
1.	What <u>challenges</u> do you see with the AESO's <b>existing ARS Program, specifically its approaches to standards development, implementation and monitoring</b> , and what <u>suggestions</u> would you offer to improve these approaches?	
	(i) Standards development approach	RSAWs should be developed through the stakeholder consultation process and be approved at the same time as the ARS so that the market participant can prepare for the date that the ARS comes into effect.

Questions	Stakeholder Comments
	<p>The penalties that are associated with non-compliances should be part of the stakeholder review process to ensure alignment between MP and the AESO on the interpretation of the severity of compliance with each new ARS or ARS revisions.</p>
(ii) Standards implementation approach	<p>The updates of the standards in NERC is at a higher frequency than the AESO. When the AESO requires the MP to follow the guidance of NERC, it isn't clear which version of NERC the MP is expected to follow. It may occur that the NERC guidance is updated in the middle of the audit cycle for the MP. In this case, it isn't clear which NERC guidance should be followed or if NERC guidance is even a requirement for the MP.</p> <p>Since the ARS is implemented for the reliability of the AIES, all requirements should be clear on how they improve the grid reliability, and compliance with the requirement should result in tangible improvement to grid reliability. In previous experience, non-compliances were related to wording of a MP compliance program rather than infractions or omissions that result in real world reduction in grid reliability. Recommend this be seriously considered when providing a suspected contravention to the MSA</p>
(iii) Standards compliance monitoring approach	<p>The expectation of the AESO for the ARS requirements and RSAWs are not always clear. This leads to confusion and possibly suspected contraventions which may occur long after the standard is in effect.</p> <p>Sometimes NERC documentation is referenced in the audit, or expected to be followed for evidence, when there is not clear requirement in the ARS or RSAW that the market participant must follow NERC guidelines. Other times, the MP follows NERC guidelines in the preparation of ARS plans, and is told that NERC does not apply. The ARS should be very clear where the MP should follow NERC guidance, and when it is not applicable or required.</p> <p>NERC standards are updated faster than the AESO standards which can create confusion for which version of standard the MP should be following. Especially when for the previous point, if the MP is expected to follow NERC guidance which may be in effect prior to the AESO ARS.</p>

Questions	Stakeholder Comments
<p>2. If the AESO was to adopt a more risk-based approach to its ARS Program overall, what factors should it include in its approach (e.g. priority criteria, risk, impact, frequency, history)?</p>	<p>The risk-based approach should be focused on new standards, previous non-compliances, and ARS that have a high impact to the reliability of the AIES. Since audits and self-certifications have a financial burden on each market participant, a risk-based approach should consider how to get the maximum value with the least effort.</p> <p>Market Participants should be evaluated based on their potential impact to the grid. ISDs should be considered a lower risk than a company with significant transmission and generation facilities that could seriously risk the reliability of the grid. This could be evaluated similarly to CIP where weighting is given to certain size of generation or major transmission facilities so that the burden of the requirements and audits on the ISDs is more effectively allocated.</p>
<p>3. Do you know of a risk-based approach for standards development, implementation and compliance monitoring that has worked in other jurisdictions and might be applicable here? Please specify.</p>	<p>CSA has been developing a risk-based approach to their Canadian standards. Consider looking at Alberta Municipal Affairs approach and their Standata program.</p>
<p>4. What <u>challenges</u> do you see with the <b>existing standards development processes</b> versus the approach identified in Q1, and what <u>suggestions</u> would you offer to improve these processes?</p>	
<p>(i) Adoption/rejection criteria</p>	<p>There should be a clear link between the implementation of the standard and the increased value to the reliability of the grid. Several standards have been implemented that result in duplication of effort by the market participant with no real improvement in grid reliability. One example is FAC-008 where the market participant was required to detail the power system components and ratings, whereas this is already vetted during the AESO interconnection process and must also be designed and stamped by a professional engineer in accordance with industry standards. This resulted in significant additional work (resulting in financial burden) with no actual change to the MP's system or grid reliability.</p>

Questions		Stakeholder Comments
	(ii) Process effectiveness and efficiency	The process should clearly outline how the proposed changes to the ARS directly improves grid reliability. It should also take into account the various MP it will affect, and should exclude MP where little or no measurable reliability will result from the implementation of the standard.
	(iii) Sufficient information to understand content and intent	<p>The inclusion of the RSAW in the stakeholder consultation process will help give clarity on what is expected to comply with the standard. It will give an opportunity for the MP to suggest changes which will better align with the intent to increase the reliability of the AIES.</p> <p>We find the MP and AESO frequently interpret a requirement differently, and the MP is penalized for this lack of clarity in the standard. We would recommend the AESO update their requirements to be clearer and start by focusing on requirements where multiple MPs have a different interpretation than the AESO. During an Audit we would frequently hear the auditor say, "This is a common misconception from many MPs and the AESO interprets it differently". This lack of clarity leads to suspected contraventions and penalties for the MP.</p>
	(iv) Other	
5.	What <u>challenges</u> do you see with the <b>existing standards implementation processes</b> versus the approach identified in Q1, and what <u>suggestions</u> would you offer to improve these processes?	
	(i) Process effectiveness and efficiency	The response time on RFIs needs to be improved. The MP are working very hard to comply with new standards and updated standards. This may mean that clarity on the interpretation or applicability of the standard is required. Prompt RFI response allows the MP to be more efficient and effective. Historically we have seen more than 1 year to respond. Request 2-4 weeks response period. This is especially important when new or revised standards are coming into effect and the MP does not have clarity how it applies or what the requirements mean.

Questions	Stakeholder Comments
(ii) Sufficient information to implement (e.g. Information Documents, NERC guidance, AESO technical sessions)	<p>As discussed above, it isn't clear to the MP when NERC guidance is required vs recommended. If the NERC guidance must be followed for successful compliance to an AESO standard, then it should be clearly referenced in the standard and / or the RSAW (is it recommended or is it required?).</p> <p>Our interpretation is that information Documents, NERC guidance, and AESO technical session are not requirements. Therefore, unless they are referenced in the ARS or RSAW, they are not necessary to meet the ARS requirements. Our experience is the auditors treat these as requirements and move so far as to say it is a suspected contravention.</p>
(iii) Barriers to implement standards (e.g. lack of understanding of measures)	<p>The ARCDG group was an effective way for MP to discuss new standards and standard revisions, and standard implementation with the AESO. After these meetings, the ARCDG members were able to bring information back the rest of the MP through the ARSUG group. The ARCDG group hasn't met for 2 years, and we would appreciate the return of this tool.</p> <p>The ARCDG was one of the few ways to have 2-way dialog between MP and the AESO. Information Sessions offer very limited dialog.</p>
(iv) Other	<p>Audit findings and lessons should be shared with the MP as soon as possible. If a common theme is discovered during Audits, clarity can be provided to the rest of the market participants through the ARCDG group, or ID document updates.</p> <p>Feedback from the audits is very limited. Typically, the MP is reported for a suspected contravention. There should be another avenue for improvements (recommendations) where minor adjustments to the MP's program can be made in a collaborative way to improve the reliability of the grid. The AESO could recommend small fines, or forbearance for non-compliances that require minor updates to the MP's compliance program or don't have a high impact to grid reliability.</p>
6. What <u>challenges</u> do you see with the <b>existing standards compliance monitoring program and its associated</b>	

Questions	Stakeholder Comments
<b>processes</b> versus approach identified in Q1, and what <u>suggestions</u> would you offer to improve this program and its processes?	
(i) Compliance monitoring program (CM program) effectiveness and efficiency (e.g. three-year cycle, monitoring tools)	<p>Recommend increasing the amount of time that the MP must submit evidence for an audit after the audit period is complete.</p> <p>The focus of the standards compliance program is to improve the reliability of the grid. Our experience with audits, is that a lot of time and effort is spent on looking at the “letter of the law” vs the “intent of the law”. For example, did the MP’s actions cause a risk to the grid? Did the MP knowingly operate their equipment against the intent of the rule? Risk based reasonable judgement should be the foundation of the ARS compliance program. Perfection does not necessarily provide additional reliability.</p>
(ii) Monitoring processes’ effectiveness and efficiency (e.g. audit, self-certification, evidence requirements)	<p>Implement maximum number of IRs that can be submitted each day. Not all MP have dedicated SME and administrative staff (these jobs are performed by one or two persons) which makes it very difficult to respond to multiple IRs at the same time.</p> <p>Sometimes the IRs included a request to respond on the same day, which doesn’t match the requirement in the audit requirements</p>
(iii) Sufficient information to comply	<p>One of our auditors was very good at discussing the IRs after they were submitted to us. This greatly increased the clarity of what was being asked, and what information was expected be sufficient for the intent of the IR. Other auditors do not want to have a conversation about the IR intent which normally leads to more back-and-forth communication and subsequent IRs to provide additional clarity. Recommend having the option for the MP to call the auditor after each IR is submitted to talk through the IR.</p>
(iv) Sufficient information to prepare and submit information, including evidence	<p>The delay of the RSAW vs the ARS implementation makes it more challenging for the MP to know what they are required to prepare for compliance prior to the date the ARS comes into effect.</p>



Questions		Stakeholder Comments
		The audit report should be very clear on how a suspect contravention could be resolved by the MP in the future. Examples of evidence that would be sufficient to meet compliance.
	(v) Barriers to follow the CM program	Audits should always be focused on grid-reliability. If we cannot tie the requests of the auditor to a clear improvement in reliability, then the IR should be questioned for its purpose.
	(vi) Barriers to adhere to monitoring processes and timelines	Change the new self-certification program so that the MP's officer can sign off on the program without having to go into the SharePoint site.
	(vii) Other	It is clear during discussions with other MP that we are having the same challenges with the compliance program and audit findings.
7.	What area of knowledge transfer (e.g. training, education and awareness) could the AESO bolster to better equip market participants to prepare for and adhere to compliance monitoring processes?	Lessons learned can be transferred to MP through stakeholder engagement, information sessions, and the ARCDG.
8.	What is the <u>one thing</u> you would recommend the AESO do in 2022 – if you could only do one thing next year – to enhance and drive efficiencies in the standards development, implementation and compliance monitoring approaches and processes?	Move the compliance program to a risk-based approach focused on grid reliability.
9.	For the upcoming consultation kicking off in 2022, please rank the following work streams in your preferred priority order:	
	(i) Development approach	2
	(ii) Implementation approach	1

Questions		Stakeholder Comments
	(iii) Compliance monitoring approach	3
	(iv) Development processes	5
	(v) Implementation processes	4
	(vi) Compliance monitoring processes	6
	(vii) Other	Risk-based approach focused on grid reliability.
10.	Additional comments	From our experience MPs want to improve. They show this by supporting each other with lessons learned and communicate implementation best practices with each other. In contrast, the AESO through Audits focuses on the negative findings and does not provide recommendations for improvement or try to collaborate with MPs for the betterment of Grid reliability. It would be beneficial to have more collaboration with the AESO with focus on improvement vs punishment, this supports a growth mindset and will lead to better results over time.

Thank you for your input. Please email your completed matrix to: [stakeholder.relations@aeso.ca](mailto:stakeholder.relations@aeso.ca)

# Stakeholder Comment Matrix – Nov. 23, 2021

Alberta Reliability Standards (ARS) Development & Monitoring | Existing ARS Program



Comment period:	Nov. 23, 2021 to Dec. 17, 2021	Contact:	[REDACTED]
Comments from:	Canadian Natural Resources Ltd	Phone:	[REDACTED]
Date:	[2022/01/20]	Email:	[REDACTED]

## Instructions

1. Please fill out the section above as indicated.
2. Please respond to the questions below and provide your specific comments.
3. **Please submit one completed comment matrix per organization.**
4. **Stakeholder comment matrices will be published on [aeso.ca](https://aeso.ca), in their original state.**
5. Email your completed comment matrix to [stakeholder.relations@aeso.ca](mailto:stakeholder.relations@aeso.ca) by **Dec. 17, 2021**.

## Request for feedback

The AESO is seeking feedback from interested stakeholders on their perspectives as it relates to the current ARS Program, and on identifying and prioritizing areas of potential improvement opportunities. The AESO values stakeholder feedback and invites all interested stakeholders to provide their comments on the following questions. Please be as specific as possible with your responses. Thank you.

Questions		Stakeholder Comments
1.	What <u>challenges</u> do you see with the AESO's <b>existing ARS Program, specifically its approaches to standards development, implementation and monitoring</b> , and what <u>suggestions</u> would you offer to improve these approaches?	The AESO's ARS Work Plan does not provide enough notice or detail for Market Participants to budget accurately. AESO work plan should include accurate target completion dates which enable all market participants an opportunity to budget for ARS development (in Transmission Cost of Service applications where applicable). MPs should be able to consult on the RSAWs (questions, clear up info, etc. Requires responses from AESO). Development should include what evidence is needed, so we can build our program one time. Suggest permanently increasing the submittal periods of both Self-Certification (from 30 days) and Audit (from 40 days) to 90-days.
	(i) Standards development approach	
	(ii) Standards implementation approach	

Questions		Stakeholder Comments
	(iii) Standards compliance monitoring approach	Reduce scope of the ARS audit to ONLY new ARS, those with real time events, or that the participant has contravened.
2.	If the AESO was to adopt a more risk-based approach to its ARS Program overall, what factors should it include in its approach (e.g. priority criteria, risk, impact, frequency, history)?	<p>During the consultation process for the new AESO BES definition; the AESO rejected numerous NERC BES exclusions E1, E2, E3 and E4 for BES identification. This approach by the AESO is indicative of not following a risk based approach by overburdening smaller generators with onerous compliance requirements that are not applicable within the NERC BES framework. Suggest the AESO adopt NERC definitions for BES including all exclusions to reduce compliance burden.</p> <p>AESO could treat ARS compliance similar to ISO Rules (monitor and ask for information ad hoc based on industry events and trends – eliminate the need for routine audits). The Transmission Regulation states that the ISO must monitor compliance by market participants with reliability standards (Section 23(1)). There is no obligation to audit. Reduce scope of the ARS audit to only new ARS, those with real time events, or that the participant has contravened.</p>
3.	Do you know of a risk-based approach for standards development, implementation and compliance monitoring that has worked in other jurisdictions and might be applicable here? Please specify.	
4.	What <u>challenges</u> do you see with the <b>existing standards development processes</b> versus the approach identified in Q1, and what <u>suggestions</u> would you offer to improve these processes?	Market participants build programs to comply with ARS and to produce evidence to satisfy the RSAW. Advance notice of both prevents having to do build solutions multiple times. RSAWs sometimes appear to ask for information that is not evident in the ARS.
	(i) Adoption/rejection criteria	
	(ii) Process effectiveness and efficiency	

Questions		Stakeholder Comments
	(iii) Sufficient information to understand content and intent	
	(iv) Other	
5.	What <u>challenges</u> do you see with the <b>existing standards implementation processes</b> versus the approach identified in Q1, and what <u>suggestions</u> would you offer to improve these processes?	
	(i) Process effectiveness and efficiency	
	(ii) Sufficient information to implement (e.g. Information Documents, NERC guidance, AESO technical sessions)	
	(iii) Barriers to implement standards (e.g. lack of understanding of measures)	
	(iv) Other	
6.	What <u>challenges</u> do you see with the <b>existing standards compliance monitoring program and its associated processes</b> versus approach identified in Q1, and what <u>suggestions</u> would you offer to improve this program and its processes?	The AESO audit report should provide clear directions on what is required to meet compliance (including examples of what evidence should be) for each potential non-compliance. Mitigation plans should be reviewed by the AESO auditor, helping Market Participants achieve compliance. Mitigation plans are produced by Market Participant to resolve audit and Self-Report contraventions, yet Market Participant are unclear if their efforts will meet the AESO's expectations since they are not provided auditor feedback.
	(i) Compliance monitoring program (CM program) effectiveness and efficiency (e.g. three-year cycle, monitoring tools)	

Questions		Stakeholder Comments
	(ii) Monitoring processes' effectiveness and efficiency (e.g. audit, self-certification, evidence requirements)	
	(iii) Sufficient information to comply	The AESO should work with Market Participant to help ensure corrective actions achieve the intended results.
	(iv) Sufficient information to prepare and submit information, including evidence	Mitigation plans should be reviewed by the AESO to help Market Participants achieve compliance. Currently, mitigation plans are produced by Market Participant to resolve audit and Self-Report contraventions, but the Market Participant is unclear if their efforts will meet the AESO's expectations.
	(v) Barriers to follow the CM program	The AESO should work with Market Participant to help ensure corrective actions achieve the intended results. We currently wait several years to see if corrections meet the AESO's approval.
	(vi) Barriers to adhere to monitoring processes and timelines	AESO should consider providing recommendations and best practices in lieu of suspected contraventions, where appropriate.
	(vii) Other	
7.	What area of knowledge transfer (e.g. training, education and awareness) could the AESO bolster to better equip market participants to prepare for and adhere to compliance monitoring processes?	<p>AESO should publish RSAWs with example evidence information to show the MP how the AESO would like to see RSAW evidence. The AESO requests written RFI's for Market Participants to ask questions about existing ARS. If the question is about an interpretation of a rule, the AESO might not provide any guidance.</p> <p>RFIs may also take up to 3-months to receive a response from the AESO, and often the answer could be provided in general terms through a conversation with the AESO, or directly with the AESO's subject matter expert and audit team.</p> <p>The AESO should consider reviewing and modifying the process. The AESO should provide clarity and support on interpretation of rules with the responses provided to all market participants (as required) in a timely manner. Reliability Standard Audit Worksheets (RSAWs) should be a part of the ARS Rule Development process, including stakeholder consultation. RSAWs should be finalized at the same time the standard is finalized.</p>

Questions	Stakeholder Comments
<p>8. What is the <u>one thing</u> you would recommend the AESO do in 2022 – if you could only do one thing next year – to enhance and drive efficiencies in the standards development, implementation and compliance monitoring approaches and processes?</p>	<p>Of all the ARS standards; CIP-003 R2 CIP Low Impact compliance is by far the most ambiguous to comply with from an AESO audit perspective.</p> <p>Many Market Participants struggle with compliance with CIP-003 R2 CIP Low Impact since the standard is not very prescriptive in terms of what is required for a policy vs procedure. Suggest that the AESO published a guidelines that clearly defines how to achieve compliance with CIP-003 R2. For each of tenets covered by CIP-003 R2; suggest the AESO provides clear guidance on what will be considered acceptable to achieve compliance.</p> <ol style="list-style-type: none"> <li>1) Cyber Security Awareness: is there a recommended training course that the AESO considers acceptable for low impact compliance?</li> <li>2) Physical Security Controls: Are cameras required or swipe card access required? Or is it sufficient to lock the gates of the substation?</li> <li>3) Electronic Access Controls: Clearly specify how to achieve compliance? AESO auditors ask for inventory list even though the standard states an inventory list is not required? Do we need to submit router/firewall settings? Architecture drawings?</li> <li>4) Incident Response for Cyber Security: Does the AESO have a recommended format for incident response tracking? In past audits AESO has rejected utilizing corporate incident tracking within our ERP system (within Maximo, SAP etc).</li> </ol>
<p>9. For the upcoming consultation kicking off in 2022, please rank the following work streams in your preferred priority order:</p>	<ol style="list-style-type: none"> <li>1) Compliance monitoring approach</li> <li>2) Compliance monitoring processes</li> <li>3) Implementation approach</li> <li>4) Implementation processes</li> <li>5) Development approach</li> <li>6) Development processes</li> <li>7) Other.</li> </ol>
<p>(i) Development approach</p>	
<p>(ii) Implementation approach</p>	

Questions		Stakeholder Comments
	(iii) Compliance monitoring approach	
	(iv) Development processes	
	(v) Implementation processes	
	(vi) Compliance monitoring processes	
	(vii) Other	
10.	Additional comments	

Thank you for your input. Please email your completed matrix to: [stakeholder.relations@aeso.ca](mailto:stakeholder.relations@aeso.ca)



# Stakeholder Comment Matrix – Nov. 23, 2021

Alberta Reliability Standards (ARS) Development & Monitoring | Existing ARS Program



Comment period:	Nov. 23, 2021 to Dec. 17, 2021	Contact:	Tracy Coutts
Comments from:	ENMAX Energy and ENMAX Power	Phone:	403-514-2756
Date:	2022/01/21	Email:	tcoutts@enmax.com

## Instructions

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## Request for feedback

The AESO is seeking feedback from interested stakeholders on their perspectives as it relates to the current ARS Program, and on identifying and prioritizing areas of potential improvement opportunities. The AESO values stakeholder feedback and invites all interested stakeholders to provide their comments on the following questions. Please be as specific as possible with your responses. Thank you.

Questions	Stakeholder Comments
1. What <u>challenges</u> do you see with the AESO's <b>existing ARS Program, specifically its approaches to standards development, implementation and monitoring</b> , and what <u>suggestions</u> would you offer to improve these approaches?	
(i) Standards development approach	<b>Aligning NERC Adoption and AESO ARS Implementation Timelines</b>  Currently the AESO adopts the NERC standards sometimes years after they have been implemented by NERC. Although ENMAX appreciates that the AESO requires time to ensure the NERC standards align in Alberta, ENMAX feels that implementing ARS closer to the adoption of the NERC standards would benefit Market Participants as vendors,

Questions	Stakeholder Comments
	<p>technology and dialogue would align with the latest NERC version of the Reliability Standard. As Alberta is often years behind in their version of Reliability Standards, vendors may not have expertise in the subject.</p> <p><b>Re-Establishment of Alberta Reliability Committee Discussion Group (ARCDG)</b></p> <p>The AESO should re-commence their ARCDG meetings which were discontinued prior to Covid for reasons unknown. These meetings were a great venue for a smaller group of industry representatives to review and provide feedback on ARS development, as well as collaborative discussions prior to formal consultations being kicked off.</p> <p>Going forward, ENMAX also recommends that the AESO Compliance audit group participate in the ARCDG meetings. This would allow the AESO's compliance team to take part in the development discussion and hear first-hand the various interpretations that participants may have.</p> <p>ARCDG should include discussion around the measures and evidence requirements as noted within a Reliability Standard Audit Worksheet (RSAWs). RSAWs are currently not part of ARS development and are often only provided to Market Participants near the effective date of the new ARS, so Market Participants often have to redo work to satisfy the RSAW. If the AESO Compliance audit group can provide clear audit expectations during the stakeholder process and ARS development, then less rework is needed by Market Participants during the audit process.</p> <p>Because RSAWs are provided to Market Participants around the effective date of the ARS, Market Participants must revise their compliance programs to produce the evidence described in the RSAW. RSAWs are needed earlier in the development cycle so that Market Participants can develop programs once and plan costs and resources appropriately (in particular for regulatory applications in EPCs case).</p> <p><b>Improvements to ARS Work Plan</b></p> <p>Another challenge is that Market Participants do not have all the information to plan their compliance programs appropriately, in particular adequate notice to ensure they can budget as part of their transmission cost of service. Market participants would benefit from the</p>

	Questions	Stakeholder Comments
		<p>AESO ensuring their ARS work plan provided accurate deadlines for when new and modified ARS will become effective in order for costs to be properly budgeted for internal purposes and rate applications (which can be material).</p>
	(ii) Standards implementation approach	<p>There are often a lot of questions during the implementation of standards and limited industry mechanisms to get clarity in a timely manner.</p> <p>First, the AESO should openly engage with Market Participants on existing and upcoming ARS requirements (specifically based on interpretation and types of evidence they require) including wording in the RSAW.</p> <p>Second, if a participant seeks clarification of an ARS that is not clearly worded, the participant must submit the request through the AESO's Requests for Information (RFI) process, which allows for AESO responses in 90-days or longer. ENMAX would like to see the AESO respond to the RFI's in a shorter timeframe where possible. Often, participants need to adjust compliance programs based on the AESO's responses to the RFI's, and the long response time unnecessarily impacts Market Participants.</p> <p>ENMAX has utilized the RFI process and appreciates the AESO's diligence and support in its responses. However, if the question is about interpretation of how a rule or requirement may apply to a participant or its facilities, the AESO is not required to provide that information. ENMAX feels that the AESO should be open to providing <u>guidance</u> on interpretation of existing ARS, since often, questions related to interpretation and operations are not evident until after an ARS has been implemented.</p>
	(iii) Standards compliance monitoring approach	<p>Audit findings and lessons learned should be shared amongst Market Participants as soon as possible, and in a way that excludes Market Participant names or other details that can put the Market Participant at risk. Market Participants would prefer to modify programs and resolve issues as early as possible, and as findings and lessons learned are often applicable across Market Participants, adjusting programs sooner rather than later has a positive effect on reliability.</p> <p>The AESO audit report should provide clear directions on what is required to achieve compliance, including specifics on expected evidence, once a potential non-compliance is</p>

	Questions	Stakeholder Comments
		<p>identified. This type of feedback should also be shared with industry without identifying the non-compliant Market Participant.</p> <p>Mitigation plans should be reviewed by the AESO to help Market Participants achieve compliance. Currently, mitigation plans are produced by Market Participant to resolve audit and Self-Report contraventions, but the Market Participant is unclear if their efforts will meet the AESO's expectations. The AESO should work with Market Participant to help ensure corrective actions achieve the intended results and provide confirmation (closure) of the file upon review of the Mitigation plan.</p> <p>Currently, the compliance audit requires extensive workload on the Market Participants, requiring additional resources (which is not always available to entities). As well, the current duration of information requests for the audit is lengthy and unpredictable. Information requests sometimes appear to be disconnected from the ARS standard and / or the reliability of the system. Information requests should be directly related to ARS.</p> <p>In many cases, suspected contraventions are based on different interpretations between the AESO and Market Participant, such as what qualifies as sufficient evidence. ENMAX would like the AESO to take these opportunities to recommend changes, not suggest there is a suspected contravention, including use of NERC's RSAW language to include areas of concern, recommendations and positive observations.</p> <p>Note – The AESO has announced their new voluntary Advanced Self-Certification Program which provides an opportunity for Market Participants to submit evidence in their Self-Certification process. This is a good step forward, however it does not go far enough. There needs to be continuous feedback and dialogue to get clarification on the evidence required. There needs to be a willingness to guide the industry either through dialogue, templates, etc.</p>
2.	If the AESO was to adopt a more risk-based approach to its ARS Program overall, what factors should it include in its approach (e.g.	ENMAX would encourage the AESO to consider a more robust risk-based approach to the ARS program. However, since there are different factors to be considered in a risk-based

	Questions	Stakeholder Comments
	priority criteria, risk, impact, frequency, history)?	<p>approach, ENMAX recommends the AESO host an industry-wide stakeholder discussion purely based on evaluating a risk-based program.</p> <p>Compliance monitoring focused on a risk-based perspective should allow both participants and the AESO to focus on high risk reliability concerns rather than low risk or administrative work. A risk-based approach can facilitate appropriate audit and self-certification frequencies and focus, leading to effective and efficient evaluation of compliance levels.</p> <p>The 2021 ERO Compliance Monitoring Enforcement Program Implementation Plan (<a href="#">CMEP</a>), includes compliance monitoring methods that Regional Entities (RE) use to assess registered entities compliance to standards (in accordance with the NERC's <a href="#">Rules of Procedure</a>, including Appendix 4C). NERC identifies the risk elements, and the RE's use these risk elements and include areas of focus as they evaluate opportunities and priorities to enhance internal controls and compliance operations focus.</p> <p>Further to a high-level review of the different RE's compliance programs, ENMAX believes the following should be included for consultation in Alberta:</p> <ul style="list-style-type: none"> <li>• Inherent Risk Assessments (IRA) performed</li> <li>• Internal Controls Evaluation</li> <li>• Compliance Oversight Plans (COP) to be developed and updated (risk-based) for each entity</li> <li>• Self-Logging program (as eligible) includes IAC.</li> <li>• Guided self-certification (typically limited in scope). In some cases, these are in place of a compliance audit for lower risk standards.</li> </ul> <p>Audit and self-certification based on risk / reliability (and not necessarily performed triennial or annually)</p>
3.	Do you know of a risk-based approach for standards development, implementation and compliance monitoring that has worked	ENMAX is not able to state what risk-based approach has worked in other jurisdictions, however, ENMAX encourages the AESO to schedule industry wide stakeholder sessions to

	Questions	Stakeholder Comments
	in other jurisdictions and might be applicable here? Please specify.	openly discuss the different risk-based factors that could be considered going forward (included in 2 above).
4.	What <u>challenges</u> do you see with the <b>existing standards development processes</b> versus the approach identified in Q1, and what <u>suggestions</u> would you offer to improve these processes?	<p>ENMAX believes the standard development process would be improved with the participation of the AESO's compliance audit group. Market Participants make many assumptions during the development process, often with the participation of the AESO, only to find out during ARS audits that the AESO's compliance audit group has a different interpretation. This can result in extensive program rework costs for the Market Participant and/or specified penalties.</p> <p>RSAWs should be a part of the development process, justification is established earlier in our answers.</p>
	(i) Adoption/rejection criteria	
	(ii) Process effectiveness and efficiency	
	(iii) Sufficient information to understand content and intent	AESO should be very specific about what the expected evidence should be. For example, if the AESO would like photographs taken prior to the audit period, it should clearly state that, and provide that information during the development process.
	(iv) Other	
5.	What <u>challenges</u> do you see with the <b>existing standards implementation processes</b> versus the approach identified in Q1, and what <u>suggestions</u> would you offer to improve these processes?	
	(i) Process effectiveness and efficiency	
	(ii) Sufficient information to implement (e.g. Information Documents, NERC guidance, AESO technical sessions)	Refer to other feedback on clear expectations.

	Questions	Stakeholder Comments
	(iii) Barriers to implement standards (e.g. lack of understanding of measures)	<p>Refer to other feedback on clear expectations.</p> <p>A large hurdle is we develop our programs based on the ARS, but the AESO releases the RSAW often days before the ARS is effective, and we have to modify our program to produce evidence called for in the RSAW. This creates rework and risk to the Market Participant.</p>
	(iv) Other	
6.	What <u>challenges</u> do you see with the <b>existing standards compliance monitoring program and its associated processes</b> versus approach identified in Q1, and what <u>suggestions</u> would you offer to improve this program and its processes?	<p>The AESO's current approach to compliance monitoring appears to assume that unlimited resources are available to Market Participants, which results in a significant and continuous workload. Together with self-certification (which requires an annual detailed review of every requirement applicable to an entity) and the tri-annual audit (which includes detailed reviews and validation of the majority of the ARS), these processes require extensive resources to demonstrate compliance. As noted above, the current process is highly resource intensive and focuses on both high and low risk elements. ENMAX encourages the AESO to engage stakeholders on a risk-based compliance approach, so that compliance monitoring resources can be targeted on the most impactful program elements.</p>
	(i) Compliance monitoring program (CM program) effectiveness and efficiency (e.g. three-year cycle, monitoring tools)	<p><b>Submission Timelines:</b></p> <p>Submission dates should be 90-days after the self-certification and audit end dates.</p> <p>The current submission date (about 30 calendar days for self-certification and 45 calendar days for the Audit) unnecessarily and arbitrarily reduces the timeline for subject matter experts to organize evidence for events that occurred near the period end dates or to run reports covering the entire reporting period. Rigorous submission reviews and formal sign-off can take several weeks to complete and begins upon RSAW finalization, which takes place after all the evidence is compiled.</p> <p>The short timeline overburdens Market Participants and results in significant overtime required (up to 60 hours per week) from the Market Participants to meet submission deadlines. Expanding the time period to finalize evidence can improve evidence submissions and reduce the overall time spent on the monitoring program, including a</p>

Questions	Stakeholder Comments
	<p>reduction in Information Requests by the AESO. Much of the extensive ARS workload is tied up in finalizing RSAWs and evidence packages in the short submission timelines.</p> <p>In the last ARS audit (early 2021), the AESO requested an extension between the period of the audit timeframe and the audit submission, the result was lower information requests and less overtime for the Market Participants.</p> <p>Expanding the submission time frames (between the end of the reporting period and the submission date) has no impact on the Bulk Electric System reliability or the AESO.</p> <p><b>Scheduled Breaks:</b></p> <p>ARS audits are not the only work that the ARS team and subject matter experts complete. Given the time and resources required to complete an ARS Audit, ENMAX requests that the AESO and the participant discuss scheduling options prior to the audit, which may include scheduled breaks within the audit schedule. These breaks are vital for work groups to plan work activities or schedule time off.</p>
(ii) Monitoring processes' effectiveness and efficiency (e.g. audit, self-certification, evidence requirements)	<p><b>Information Requests:</b></p> <p>Audit related Information Requests should focus on a specific requirement within the ARS. For example, ARS procedures submitted as evidence may include steps or material not related to the Market Participant's ARS program. The AESO should refrain from submitting Information Requests for the non-ARS related material.</p> <p>The AESO can make the Information Requests more efficient for Market Participants by including context or a description of the challenge experienced by the auditor. Market Participants may receive multiple Information Requests that could be resolved earlier with the inclusion of additional information explaining what the Auditor is looking for.</p>
(iii) Sufficient information to comply	<p>The AESO audit report should supply clear directions on what is required to maintain compliance (including examples of what evidence should be) once they determine a potential non-compliance. This type of feedback should also be provided to industry without identifying the non-compliant Market Participant.</p>



	Questions	Stakeholder Comments
	(iv) Sufficient information to prepare and submit information, including evidence	<p>By having the AESO supply additional information for evidence requirements and expectations in new standards and RSAWs, this would eliminate a lot of guess work and additional resources from Market Participants in their internal evidence gathering processes, assuming the AESO provided the RSAW during the development phase</p> <p>The AESO should develop their own sampling sizes or formally adopt NERC's sampling methodology, and these should be stated in RSAWs.</p>
	(v) Barriers to follow the CM program	<p>The new AESO Portal requires Market Participant's Officers to have been trained on and maintain user names and passwords for the AESO's portal. The Officer access is a new AESO requirement to use the AESO portal's electronic signature function. It would be an efficiency for a Market Participant to manage signatures internally, with the ability to upload signed documents. Since the Officers would rarely access the portal, Market Participants do not think this is an efficient use of time.</p>
	(vi) Barriers to adhere to monitoring processes and timelines	<p>See comments on 90-day reporting timelines.</p>
	(vii) Other	<p>The opportunity to provide feedback on the existing ARS program has been very well received and should result in increased reliability and efficiencies for both Market Participants and the AESO. With the quickly changing grid and increase of intermittent resources, this will likely change the reliability landscape going forward. This opportunity should be an annual occurrence, with the AESO working with Market Participants on developing an action plan and priority list.</p>
7.	What area of knowledge transfer (e.g. training, education and awareness) could the AESO bolster to better equip market participants to prepare for and adhere to compliance monitoring processes?	<p>Provide training, in cooperation with AESO Compliance audit team on:</p> <p>(1) The intent of an ARS, the risk it poses to the AIES and different options available to achieve compliance.</p> <p>(2) The expectation for what evidence will be required in an audit.</p>

	Questions	Stakeholder Comments
		<p>(3) Findings in other Market Participant audits to allow for all Market Participants to learn from other audits. The shared learnings should not disclose the Market Participant or the asset.</p> <p>(4) Clear expectations on what mitigation actions will bring a Market Participant into compliance.</p>
8.	What is the <u>one thing</u> you would recommend the AESO do in 2022 – if you could only do one thing next year – to enhance and drive efficiencies in the standards development, implementation and compliance monitoring approaches and processes?	Permanent extensions to Self-Certification and Audit submissions to 90-days would provide Market Participants with immediate relief and would have no impact on reliability.
9.	For the upcoming consultation kicking off in 2022, please rank the following work streams in your preferred priority order:	
	(i) Development approach	2
	(ii) Implementation approach	4
	(iii) Compliance monitoring approach	1
	(iv) Development processes	3
	(v) Implementation processes	5
	(vi) Compliance monitoring processes	6
	(vii) Other	Consultation on a more risk-based approach.
10.	Additional comments	

Thank you for your input. Please email your completed matrix to: [stakeholder.relations@aeso.ca](mailto:stakeholder.relations@aeso.ca)

# Stakeholder Comment Matrix – Nov. 23, 2021

Alberta Reliability Standards (ARS) Development & Monitoring | Existing ARS Program



Comment period:	<b>Nov. 23, 2021 to January 21, 2022</b>	Contact:	Rajveen Gill
Comments from:	EPCOR Distribution & Transmission Inc. (EDTI)	Phone:	780-412-3435
Date:	January 21, 2022	Email:	rgill@epcor.com

## Instructions

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The AESO is seeking feedback from interested stakeholders on their perspectives as it relates to the current ARS Program, and on identifying and prioritizing areas of potential improvement opportunities. The AESO values stakeholder feedback and invites all interested stakeholders to provide their comments on the following questions. Please be as specific as possible with your responses. Thank you.

Questions		Stakeholder Comments
1.	What <u>challenges</u> do you see with the AESO's <b>existing ARS Program, specifically its approaches to standards development, implementation and monitoring</b> , and what <u>suggestions</u> would you offer to improve these approaches?	
	(i) Standards development approach	<p>There is a lack of clarity around how to comply with standards within the standards making it difficult for Market Participants (MPs) to demonstrate and maintain compliance.</p> <p>Suggestions:</p> <ul style="list-style-type: none"><li>• Require the AESO to publish an ARS work plan at specified intervals with target timelines for all standards (sections 2-7 of the current work plan do not have target</li></ul>

Questions	Stakeholder Comments
	<p>timelines) and meet the work plan timelines on when ARS will be developed to allow for more meaningful consultation efforts from MPs. MPs can then better balance resources and manage future projects with a reliable schedule and the compliance efforts required in mind.</p> <ul style="list-style-type: none"> <li>• RSAWs and ARS should be developed and consulted on at the same time so that MPs and the AESO have the same understanding about compliance requirements rather than waiting until an Audit or Advanced Self-Certification. By that point, MPs have already created and implemented programs to be compliant.</li> <li>• EDTI suggests the ARCDG meeting be restarted but with the inclusion of the AESO's audit group participating. Currently, there appears to be a disconnect between the AESO's audit group and standards development group as the audit group is not available to answer questions related to compliance during drafting or standard review meetings.</li> <li>• ARS cyber security requirements in Alberta are lacking for low impact BES assets, with existing NERC requirements in other jurisdictions providing at least a minimum level of protection to coordinated attacks. British Columbia, Saskatoon, Manitoba, Ontario, Quebec, Nova Scotia, and New Brunswick have all kept pace with NERC's implementation of CIP standards. ARS implementation of NERC reliability standards is lagging behind the rest of the industry. EDTI suggests that the AESO adopt standards that are consistent with those of other provinces.</li> <li>• EDTI believes that, in light of limited resources, a better balance needs to be struck between a focus on (i) compliance and (ii) reliability or cyber security. EDTI is of the view that an increased focus on the latter category is preferable.</li> <li>• In July of 2019, the AESO initiated a stakeholder consultation on the proposed new definition of Radial Circuit for use in ARS. EPCOR is of the position that a more appropriate setting to address changes such as this would be an AESO Tariff proceeding.</li> <li>• EDTI suggests that the AESO more closely align its practices with the NERC standards drafting model in the use and distribution white papers, inclusion of severity levels, timely and periodic lessons learned, etc.</li> </ul>

Questions	Stakeholder Comments
(ii) Standards implementation approach	<p>The immediate implementation of ARS (as done with CIP V5) in Alberta has resulted in unique circumstances and challenges for MPs.</p> <p>Comments:</p> <ul style="list-style-type: none"> <li>• Accountability for the AESO to meet work plan timelines is needed. Knowing when ARS will be developed allows for more meaningful consultation efforts from MPs. MPs can better balance resources and manage future projects with the compliance efforts required in mind.</li> <li>• In November 2020, the AESO forecast that they would consult on five ARS; however, as of November 2021, only two of these standards were consulted on. Furthermore, in November 2020, eight ARS included in Section 3 (Standards Under Development) were marked as “TBD”. As of November 2021, only one of these eight ARS now has a projected consultation date. The remaining seven were still marked ‘TBD.’</li> <li>• Because we are currently in Version 5 of CIP, EDTI is often unable to use cost efficient technology (such as virtualization or cloud services for BCSI storage) to meet its compliance requirements.</li> <li>• Prior to implementation of standards MPs are not given the opportunity to test evidence or clarify if evidence/processes planned is consistent with what the AESO expects for the ARS.</li> <li>• AESO’s RFI process responses do not provide clarity on if the MP is on the right track for compliance. The AESO’s turnaround time of 3 to 6 months to respond to RFIs is not acceptable to MPs.</li> </ul>
(iii) Standards compliance monitoring approach	<p>EDTI views the quasi-regulatory audit process utilized in Alberta as being onerous and labor intensive without a good mechanism for MPs to provide meaningful input. This process becomes a hindrance to maintaining a safe and reliable system with so many resources focusing on the audit process. To maintain security and ensure that compliance activities are implemented in a cost-effective manner, MPs need a clear and consistent understanding of their obligations.</p>

Questions	Stakeholder Comments
	<p>Suggestions:</p> <ul style="list-style-type: none"> <li>• EDTI believes that security and reliability will improve if there is a healthy culture of reporting. However, given the resources required to investigate and report every instance of non-compliance this may result in reduced identification and reporting of ARS contraventions, both internally and externally. A different approach, as described below, would allow for a more streamlined approach and ensure that resources are directed to the most significant risk violations while still maintaining the obligation to report.</li> <li>• The Find Fix Track (FFT) and Compliance Exception (CE) programs used in NERC and other jurisdictions in Canada requires MPs to internally find fix and track any minimal risk noncompliance without creating backlogs of self-reports for the MPs and enforcement agency. In the 2020 report on the program, NERC noted that FFT produced efficiencies in NERC's processing of compliance and enforcement matters and allowed NERC and RE's to focus on occurrences of severe risk violations. <ul style="list-style-type: none"> <li>○ (<a href="https://www.nerc.com/FilingsOrders/us/NERC%20Filings%20to%20FERC%20DL/2020%20Annual%20FFT%20and%20CE%20Report.pdf">https://www.nerc.com/FilingsOrders/us/NERC%20Filings%20to%20FERC%20DL/2020%20Annual%20FFT%20and%20CE%20Report.pdf</a>)</li> </ul> </li> <li>• Use of tools and other auditing processes versus the current remote evidence based approach. <ul style="list-style-type: none"> <li>○ For process-based technical requirements, we suggest using in person or virtual meetings where auditors can ask questions in real time. EDTI suggests that for highly technical requirements, a hands-on approach would be more effective and would consequently cut administrative/documentation overhead costs.</li> </ul> </li> </ul>
2.	<p>If the AESO was to adopt a more risk-based approach to its ARS Program overall, what factors should it include in its approach (e.g. priority criteria, risk, impact, frequency, history)?</p> <p>More information is required on how a risk-based approach would change the ARS Program Overall. EDTI is willing to collaborate and provide feedback on a proposed risk-based approach.</p> <p>EDTI would support a holistic cyber-security risk based approach for the implementation and compliance monitoring of ARS CIP standards.</p>

Questions	Stakeholder Comments
3. Do you know of a risk-based approach for standards development, implementation and compliance monitoring that has worked in other jurisdictions and might be applicable here? Please specify.	The FFT and CE used in NERC and other jurisdictions in Canada is a process requiring MPs to internally find fix and track any minimal risk noncompliance without creating backlogs of self-reports for the MPs and enforcement agency.
4. What <u>challenges</u> do you see with the <b>existing standards development processes</b> versus the approach identified in Q1, and what <u>suggestions</u> would you offer to improve these processes?	
(i) Adoption/rejection criteria	There is currently a lack of transparency on adoption/rejection criteria.
(ii) Process effectiveness and efficiency	<p>Consultation is often rushed without consideration of MP input. EDTI appreciates the AESO's commitment to improving the ARS program; however, the consultation was introduced to stakeholders briefly in October and then quickly turned into a 6 page stakeholder comment matrix due within 3.5 weeks. This was later extended to be submitted in January but many times this is not the case.</p> <p>The timelines are still problematic as ARS program changes have the potential to vastly change EDTI and other MP operations. This was not on the AESO's work plan and different teams across the organization are involved in development, implementation and compliance monitoring.</p>
(iii) Sufficient information to understand content and intent	<p>Draft ARS are provided without compliance context, which leads to a lack of clarity in implementation until we are audited. Some consultations would benefit from technical sessions with the AESO's compliance group involvement.</p> <p>The AESO's work plan is not reliable to plan for or acquire resources for consultation efforts. The work plan should provide detailed information so that MPs can identify, in advance, appropriate resources to fully participate in the consultation.</p>

Questions		Stakeholder Comments
	(iv) Other	
5.	What <u>challenges</u> do you see with the <b>existing standards implementation processes</b> versus the approach identified in Q1, and what <u>suggestions</u> would you offer to improve these processes?	
	(i) Process effectiveness and efficiency	
	(ii) Sufficient information to implement (e.g. Information Documents, NERC guidance, AESO technical sessions)	Nine information documents were planned to be created and released as part of the AESO's CIP Pilot Audit lessons learned, five have been released.
	(iii) Barriers to implement standards (e.g. lack of understanding of measures)	Lack of compliance context as RSAWs are generally not provided until after effective date and are not consulted on.  Resources to implement requirements and ensure compliance evidence captured is aligned with AESO expectations.
	(iv) Other	
6.	What <u>challenges</u> do you see with the <b>existing standards compliance monitoring program and its associated processes</b> versus approach identified in Q1, and what <u>suggestions</u> would you offer to improve this program and its processes?	
	(i) Compliance monitoring program (CM program) effectiveness and efficiency (e.g. three-year cycle, monitoring tools)	For process-based technical requirements, using in person or virtual meetings where auditors can ask questions in real time should be an option. EDTI suggests that for highly technical requirements, a hands-on approach would be more effective and reduce administrative/documentation overhead.



Questions	Stakeholder Comments
(ii) Monitoring processes' effectiveness and efficiency (e.g. audit, self-certification, evidence requirements)	EDTI believes that, in light of limited resources, a better balance needs to be struck between a focus on (i) compliance and (ii) reliability or cyber security. EDTI is of the view that an increased focus on the latter category is preferable.
(iii) Sufficient information to comply	RSAWs are not provided at time of implementation or consulted on during ARS development.
(iv) Sufficient information to prepare and submit information, including evidence	<p>Suggestions are below:</p> <ul style="list-style-type: none"> <li>• Provide RSAWs at time of ARS development for consultation.</li> <li>• Publish the Information Documents that the AESO's compliance/audit group was advocating for during the pilot audit lessons learned presentation.</li> <li>• More time is needed from period end to audit submission date if 90% of requirements are in scope for the entire audit period.</li> <li>• Audit findings and lessons learned should be shared amongst MPs as soon as possible.</li> <li>• Use of working sessions, walkthroughs or other audit tools with MPs to understand evidence, instead of multiple IR iterations.</li> <li>• Use of NERC-style audits which combine audit methods and are completed within 100 days.</li> </ul>
(v) Barriers to follow the CM program	The operational cost/time commitment/burden.
(vi) Barriers to adhere to monitoring processes and timelines	<p>Comments are below:</p> <ul style="list-style-type: none"> <li>• Volume of evidence to be submitted is large and takes a substantial amount of time to compile and submit.</li> <li>• Information Requests often do not include enough information. More context on why the question is being asked would assist MPs to respond correctly.</li> <li>• Mitigation plans are created by MPs with no feedback from the AESO. A process is required for the MSA and the AESO to be aligned to allow MPs to be comfortable</li> </ul>

Questions		Stakeholder Comments
		<p>that mitigating efforts will meet the AESO's expectations if accepted by the MSA as an acceptable mitigation plan.</p> <ul style="list-style-type: none"> <li>The AESO's Audit Report often does not provide clear directions on what is required to meet compliance for referrals. For some referrals, general information that a requirement has not been met is provided without specifics on how or why the AESO interprets the requirement that way.</li> </ul>
	(vii) Other	
7.	What area of knowledge transfer (e.g. training, education and awareness) could the AESO bolster to better equip market participants to prepare for and adhere to compliance monitoring processes?	The process to submit evidence is not an issue. Rather, it would be helpful to have more education, training and awareness around what specific evidence the AESO wants to see in the RSAWs with the opportunity to provide feedback or request clarification.
8.	What is the one thing you would recommend the AESO do in 2022 – if you could only do one thing next year – to enhance and drive efficiencies in the standards development, implementation and compliance monitoring approaches and processes?	<p>Increase AESO accountability to the ARS work plan.</p> <p>EDTI also suggests the AESO work to catch up to NERC standards, with a focus on the CIP standards.</p>
9.	For the upcoming consultation kicking off in 2022, please rank the following work streams in your preferred priority order:	
	(i) Development approach	1
	(ii) Implementation approach	3
	(iii) Compliance monitoring approach	5
	(iv) Development processes	2

Questions		Stakeholder Comments
	(v) Implementation processes	4
	(vi) Compliance monitoring processes	6
	(vii) Other	
10.	Additional comments	EDTI suggests an ongoing, formalized, periodic feedback process on the ARS Program be implemented to assist with developing an action plan and priority list.

Thank you for your input. Please email your completed matrix to: [stakeholder.relations@aeso.ca](mailto:stakeholder.relations@aeso.ca)

# Stakeholder Comment Matrix – Nov. 23, 2021

Alberta Reliability Standards (ARS) Development & Monitoring | Existing ARS Program



Comment period:	<b>Nov. 23, 2021 to Jan. 21, 2021</b>	Contact:	Karen Bailey
Comments from:	Heartland Generation Ltd.	Phone:	587-943-1022
Date:	2022/01/21	Email:	karen.bailey@heartlandgeneration.com

## Instructions

1. Please fill out the section above as indicated.
2. Please respond to the questions below and provide your specific comments.
3. **Please submit one completed comment matrix per organization.**
4. **Stakeholder comment matrices will be published on [aeso.ca](https://aeso.ca), in their original state.**
5. Email your completed comment matrix to [stakeholder.relations@aeso.ca](mailto:stakeholder.relations@aeso.ca) by **Dec. 17, 2021**.

## Request for feedback

The AESO is seeking feedback from interested stakeholders on their perspectives as it relates to the current ARS Program, and on identifying and prioritizing areas of potential improvement opportunities. The AESO values stakeholder feedback and invites all interested stakeholders to provide their comments on the following questions. Please be as specific as possible with your responses. Thank you.

Questions		Stakeholder Comments
1.	What <u>challenges</u> do you see with the AESO's <b>existing ARS Program, specifically its approaches to standards development, implementation and monitoring</b> , and what <u>suggestions</u> would you offer to improve these approaches?	The main challenges with the AESO's approaches in the existing ARS Program are related to efficiency, effectiveness, and transparency.
	(i) Standards development approach	Although Alberta Reliability Standards are mostly adopted verbatim from NERC standards, there are minor changes to applicability in Alberta due to functional model differences. Inconsistency in interpretation of requirements and compliance expectations leads to inefficiencies and confusion. Specifically, the AESO will not discuss compliance expectations and compliance auditors are not involved in stakeholder sessions.  Improvements:

Questions	Stakeholder Comments
	<ul style="list-style-type: none"> <li>• Adoption of NERC standards and accompanying guidance documents in their entirety should be considered- i.e. draft NERC standards provide an abundance of information on the intent of the requirements/measures and on compliance expectations. This information is often incorporated directly into the NERC standard. However, an ARS does not have the same transparency.</li> <li>• Hold stakeholder sessions where participants can understand applicability and compliance requirements and expectations with standard owners, development teams and compliance auditors present.</li> <li>• Provide draft standard, RSAWs, Information Documents during stakeholder consultations- providing Alberta entities with the same level of transparency as offered in other jurisdictions.</li> </ul>
(ii) Standards implementation approach	<p>Alberta Reliability Standards and accompanying documentation do not provide sufficient guidance on requirements/measures interpretation or compliance expectations. Alberta is several versions behind NERC standards which when looking for further guidance, causes inefficiencies and confusion and can result in inadequate operational or compliance processes being implemented.</p> <p>Improvements:</p> <ul style="list-style-type: none"> <li>• Align standards with NERC and adopt guidance via NERC as opposed to conflicting Information Documents</li> <li>• Through stakeholder engagement, understand implementation impedance and determine implementation approach based on costs/barriers for Alberta entities using a risk-based approach.</li> <li>• Provide Information Documents, RSAWs during stakeholder consultation phase where interpretation and compliance expectations can be reviewed.</li> </ul>
(iii) Standards compliance monitoring approach	<p>AESO's ARS compliance monitoring team is not involved in stakeholder engagement and does not follow a risk-based approach. Compliance monitoring is very administratively</p>

Questions	Stakeholder Comments
	<p>burdensome and is labour intensive for both the AESO and Alberta entities as all core standards and requirements for every facility are audited every 3 years regardless of risk. This can lead to audits that last 1-2 years before they are “closed” off and self-certification is required annually where all standards and requirements must be reported on.</p> <p>AESO audits are not based on pre-established interpretation of standards/requirements or compliance expectations which leads to inconsistent and non-transparent compliance monitoring.</p> <p>Improvements:</p> <ul style="list-style-type: none"> <li>• Compliance monitoring/auditors must be involved in stakeholder engagement and more round table discussions so that both Alberta entities and auditors are on the same page regarding compliance expectations.</li> <li>• A risk-based audit process must be employed. Standards and requirements should be audited based on risk rather than an all standards, all facilities approach.</li> <li>• Clear compliance expectations should be written into standards, Information Documents, and RSAWs. If the AESO is not adopting NERC standards and guidance in their entirety, then audit findings should clearly show why the entity was in violation (i.e., the auditor's finding would point out the gap between the provided evidence and the expectation). This would put the emphasis on corrective actions, thereby improving reliability and not just on finding fault.</li> </ul>
2.	<p>If the AESO was to adopt a more risk-based approach to its ARS Program overall, what factors should it include in its approach (e.g. priority criteria, risk, impact, frequency, history)?</p>
3.	<p>Do you know of a risk-based approach for standards development, implementation and compliance monitoring that has worked</p>

Questions	Stakeholder Comments
in other jurisdictions and might be applicable here? Please specify.	ongoing monitoring priorities.
4. What <u>challenges</u> do you see with the <b>existing standards development processes</b> versus the approach identified in Q1, and what <u>suggestions</u> would you offer to improve these processes?	The existing process is inefficient due to a lack of transparency regarding AESO interpretations and compliance expectations.
(i) Adoption/rejection criteria	<p>A risk-based approach should be undertaken when considering adoption/rejection of new standards.</p> <p>The AESO should provide Alberta entities with the same level of transparency as is established in other jurisdictions:</p> <ul style="list-style-type: none"> <li>• Stakeholder consultations, in which Alberta entities can discuss interpretation and compliance expectations prior to the standard being adopted.</li> <li>• Alberta entities should vote on the interpretation and expectations of the standard (or ID) as part of the final commenting process (as it is with NERC).</li> <li>• Similar to NERC, the AESO should be mandated to obtain a majority positive vote prior to sending the standard to the AUC.</li> </ul>
(ii) Process effectiveness and efficiency	<p>The AESO does not use a risk-based approach - auditing nearly every standard and requirement for every facility is not efficient.</p> <p>Currently, the AESO process lacks transparency, which leads to lengthy audits with irrelevant information requests that add little value. The AESO could use risk assessments from Alberta entities to create a compliance plan for each participant that would increase efficiency while maintaining the focus on reliability.</p> <p>RSAWs and Information Documents need to be created in advance, provide greater compliance expectation detail, and be presented for discussion at the same time as the standard during the Stakeholder consultation phase.</p>
(iii) Sufficient information to understand	There is not enough supporting documentation to provide clarity to Alberta entities. Vague

	Questions	Stakeholder Comments
	content and intent	<p>references to NERC documents and inconsistent use of these documents (picking and choosing) creates confusion and uncertainty.</p> <p>Current development processes do not include sufficient information to understand the AESO's interpretation of the standard content and intent.</p> <ul style="list-style-type: none"> <li>• The AESO needs to provide written interpretation of the requirements/measures and compliance expectations which may be included in the standard (as with NERC) or Information Document.</li> <li>• Stakeholder consultation on ARS development needs to include discussions on the AESO's interpretation of the requirements/measures and compliance expectations.</li> </ul> <p>If the AESO chooses to adopt existing NERC documentation, they should indicate clearly which NERC documents are adopted.</p>
	(iv) Other	
5.	What <u>challenges</u> do you see with the <b>existing standards implementation processes</b> versus the approach identified in Q1, and what <u>suggestions</u> would you offer to improve these processes?	<p>The challenges with the implementation processes are the same as with the development process, (i.e., how an entity would use documentation provided by the AESO to implement internal operational and compliance processes to meet the requirements). The lack of transparency hinders the entity's ability to establish efficient and effective internal processes.</p>
	(i) Process effectiveness and efficiency	See response to question 4(ii) above.
	(ii) Sufficient information to implement (e.g. Information Documents, NERC guidance, AESO technical sessions)	<p>See response to question 4(iii) above.</p> <p>AESO ARS RSAWs are vague and do not contain enough detail to provide audit guidance. As an example, the auditor's Assessment Approach column in most RSAWs contain statements such as – (the auditor will):</p> <ul style="list-style-type: none"> <li>• “Review submitted evidence for appropriateness” or</li> <li>• “Review the evidence provided”.</li> </ul> <p>These statements should not be considered an “assessment approach” without describing what the auditor is looking for (i.e., what does the AESO mean by “review” or “appropriateness”).</p> <p>If the AESO provides interpretation on requirements/measures and compliance</p>



	Questions	Stakeholder Comments
		expectations during the development phase, then RSAWs should contain this information. Doing so would not only allow entities to develop effective operational and compliance processes, but greater efficiency would also be gained as the auditors would not have to waste time with countless, irrelevant Information Requests.
	(iii) Barriers to implement standards (e.g. lack of understanding of measures)	Transparency on AESO interpretation of requirements/measures and compliance expectations are the main barriers to standard implementation and ensuring that they are applied, as intended, to promote system reliability.
	(iv) Other	
6.	What <u>challenges</u> do you see with the <b>existing standards compliance monitoring program and its associated processes</b> versus approach identified in Q1, and what <u>suggestions</u> would you offer to improve this program and its processes?	Development and implementation processes are inefficient (time-consuming) and ineffective (non-reliability related). This is because there is not adequate transparency on interpretation of requirements/measures and compliance expectations, leading to inefficient, ineffective, and unclear monitoring processes.
	(i) Compliance monitoring program (CM program) effectiveness and efficiency (e.g. three-year cycle, monitoring tools)	The AESO needs to consider a risk-based approach similar to NERC and WECC. Excessive time is spent on investigation of non-reliability related requirements (e.g., administrative timelines – it would appear that it is more important to not miss a notification deadline by one minute than it is to have resolved a reliability issue). Audit scope could be greatly improved by focusing on reliability (See responses to questions 2 and 3 above).
	(ii) Monitoring processes' effectiveness and efficiency (e.g. audit, self-certification, evidence requirements)	Monitoring processes are inefficient and administratively burdensome in nature. There are no pre-established criteria which leads Alberta entities to guessing on what the AESO deems as appropriate evidence.
	(iii) Sufficient information to comply	Unclear compliance expectations leads to: <ul style="list-style-type: none"> <li>• inconsistent audits (between entities and from cycle to cycle for the same entity),</li> <li>• ineffective entity process implementation, and</li> <li>• higher risk to system reliability (focus on non-reliability related monitoring and findings).</li> </ul>

Questions		Stakeholder Comments
	(iv) Sufficient information to prepare and submit information, including evidence	See comments on RSAWs in question 5(ii) above.
	(v) Barriers to follow the CM program	Lack of transparency – time and resources are wasted trying to figure out what is required only to discover that expectations are not consistent.
	(vi) Barriers to adhere to monitoring processes and timelines	<p>Inefficiencies of irrelevant IRs (administrative requirements and auditor requests of irrelevant documentation that tax entity resources). NERC/WECC spend one week on an audit, the AESO takes a minimum of 3 months – which does not include submission preparation time.</p> <p>Resources would be better utilized if compliance expectations were clearly stated and provided in writing and in advance (See response to question 4 above). It is essential that the AESO provide written expectations because ARS audits are document based and there is limited interaction between the auditor and auditee. For example, in most cases, a question on expected evidence could be resolved in a 5-minute conversation during an in-person audit as opposed to multiple IRs over several weeks during an AESO audit.</p>
	(vii) Other	
7.	What area of knowledge transfer (e.g. training, education and awareness) could the AESO bolster to better equip market participants to prepare for and adhere to compliance monitoring processes?	<p>The AESO should, as NERC does, provide their interpretation of the requirements and compliance expectations (as described above in response to multiple questions).</p> <p>The AESO should provide seminars/training on the interpretation and compliance expectation documentation (i.e., Standards, IDs, RSAWs)</p>
8.	What is the <u>one thing</u> you would recommend the AESO do in 2022 – if you could only do one thing next year – to enhance and drive efficiencies in the standards development, implementation and compliance monitoring approaches and processes?	<p>Implement transparency, whereby the AESO needs to clearly state expectations. This should be done for each existing standard requirement. Implementation of this recommendation could be phased in over time (see response to question 9 below).</p> <p>The AESO compliance group could provide a document that shows criteria they use to test compliance for each requirement. Over time the AESO could then incorporate the compliance criteria into processes as described above and as per question 9 below.</p>
9.	For the upcoming consultation kicking off in 2022, please rank the following work	Transparency in all approaches and processes should be established; therefore, priority for 2022 is not on one phase but on a common element in each phase. Discussions should be

Questions		Stakeholder Comments
	streams in your preferred priority order:	on transparency and how it can be established for development, implementation, and monitoring.
	(i) Development approach	
	(ii) Implementation approach	
	(iii) Compliance monitoring approach	
	(iv) Development processes	
	(v) Implementation processes	
	(vi) Compliance monitoring processes	
	(vii) Other	
10.	Additional comments	The AESO should resume engagement with Alberta entities/stakeholders via the ARCDG. Stakeholder sessions are no longer roundtable and instead are one way communication via a pre-planned slide deck. This is limiting to discussion and interactions between AESO and stakeholders. More opportunities for engagement and discussions with Alberta entities should be undertaken as one step in an effort to improve transparency of expectations and improve overall grid reliability.

Thank you for your input. Please email your completed matrix to: [stakeholder.relations@aeso.ca](mailto:stakeholder.relations@aeso.ca)

# Stakeholder Comment Matrix – Nov. 23, 2021

Alberta Reliability Standards (ARS) Development & Monitoring | Existing ARS Program



Comment period:	Nov. 23, 2021 to Dec. 17, 2021	Contact:	Abbas Abdi
Comments from:	Imperial Oil	Phone:	403 472 8187
Date:	[2021/01/18]	Email:	Abbas.abdi@esso.ca

## Instructions

1. Please fill out the section above as indicated.
2. Please respond to the questions below and provide your specific comments.
3. **Please submit one completed comment matrix per organization.**
4. **Stakeholder comment matrices will be published on [aeso.ca](https://www.aeso.ca), in their original state.**
5. Email your completed comment matrix to [stakeholder.relations@aeso.ca](mailto:stakeholder.relations@aeso.ca) by **Dec. 17, 2021**.

## Request for feedback

The AESO is seeking feedback from interested stakeholders on their perspectives as it relates to the current ARS Program, and on identifying and prioritizing areas of potential improvement opportunities. The AESO values stakeholder feedback and invites all interested stakeholders to provide their comments on the following questions. Please be as specific as possible with your responses. Thank you.

Questions	Stakeholder Comments
1. What <u>challenges</u> do you see with the AESO's <b>existing ARS Program, specifically its approaches to standards development, implementation and monitoring</b> , and what <u>suggestions</u> would you offer to improve these approaches?	<p>As a market participant IOL is fully committed to the ARS program. The main opportunities that we see are in the area of :</p> <ul style="list-style-type: none"><li>• Definitions and applicability of standards</li><li>• Lack of clarity in the standards</li><li>• Lack of examples/formats</li><li>• Compliance monitoring approach (Evaluation of measures and Response Time for IR)</li><li>• Lack of feedback after self-assessment submission</li></ul>

Questions	Stakeholder Comments
(i) Standards development approach	<p>Opportunity for improving definitions used in standards, as an example key definitions around BES (Bulk Electric System), control center, Power Plant, Industrial complex, etc. should be reviewed.</p> <p>Definitions around BES has been reviewed in the past and some very good changes brought in, we would urge AESO to take a risk based approach. ARS standard definitions should clearly differentiate between a Utility type applications to an Industrial Facility (Primarily a load).</p> <p>The content of the standards could be simplified so that it provides a clear description on the applicability.</p> <p>There is also potential to omit redundancies across requirements or standards (e.g. PRC-001 R1 and R2 for generating unit owners; COM-001 R2 and COM-002 R2 for transmission facility owners to have voice data communication facilities with adjacent operators.)</p> <p>Instances, wherein, information document is enforced for compliance, it will be better to have those guidelines stated in the standard itself.</p> <p>Instances, wherein, AESO is looking for specific evidence to demonstrate evidence, it should be stated in the Measures section of the standard. This will ensure efficiency in the exchange of information during the audit information request phase.</p>
(ii) Standards implementation approach	<p>As with any standard, it is imperative that the intent of the standard/clause is to be focused on. In our view the overall implementation would greatly benefit if the intent of the standards are followed in choosing the assets/facilities that the standards are applied on. For example, there are radially connected assets with small in plant generation which are deemed as Bulk Electric Systems per the definitions.</p> <p>A risk based approach could perhaps be undertaken to understand how these radially connected loads compare to large generation facilities in terms of Grid reliability and what value with regards to Grid reliability is being achieved in using a non-scalable approach for implementation/compliance.</p>
(iii) Standards compliance monitoring approach	<p>Monitoring phase understandably is time constrained, however the two day response time (sometimes over weekends and holidays) to information request which is given to the Market Participants (MP) is not enough to present data and evidence that would meet the intent of the information request.</p>

Questions	Stakeholder Comments
	<p>It is important for market participant to be able to capture opportunities from the compliance model for continual improvement, there should opportunities to discuss the intent of information requests, the findings and improvement suggestions.</p> <p>Evidence sought in the Monitoring phase appears to be format based i.e., the market participant may be meeting or exceeding the intent of the standard however the way data is being presented and received may not be in the required format, resulting in suspected contraventions which may have no reliability risk.</p> <p>It would be helpful if the Implementation/Compliance team could give examples of how they would prefer to see the evidence, market participants can then use the same format during self-assessment cycles to ensure process effectiveness and improve the efficiency of the compliance process. Random sampling and feedback by compliance monitoring during the self-certification cycle would be value adding to the intent of the standard.</p>
2.	<p>If the AESO was to adopt a more risk-based approach to its ARS Program overall, what factors should it include in its approach (e.g. priority criteria, risk, impact, frequency, history)?</p> <p>In our view the ARS program is very important tool in ensuring the reliable operation of the Alberta interconnected electric system (AIES), it would add value if the approach was more risk based.</p> <p>A risk-based approach could consider the impact of facilities to the overall grid as well as the probability of such a failure occurring (based on history / analogs). This could be used to identify critical facilities and installations that could require high degree of compliance and monitoring as well as lower risk facilities for which the approach could be scaled.</p> <p>For example, Facilities that are primarily loads, radially connected to the Grid with no export capabilities should be carefully reviewed and their impact qualified.</p>
3.	<p>Do you know of a risk-based approach for standards development, implementation and compliance monitoring that has worked in other jurisdictions and might be applicable here? Please specify.</p> <p>SERC (Southeast Electrical Reliability Corporation) undertakes compliance monitoring after evaluating the risk posed by a market participant to the reliability of the grid, and thereafter utilizes the risk category to determine the frequency of the compliance monitoring audit – which varies from 3 years (for high risk assets) to 6 years (for low risk assets).</p>
4.	<p>What <b>challenges</b> do you see with the <b>existing standards development processes</b> versus the approach identified in</p>

Questions		Stakeholder Comments
	Q1, and what <u>suggestions</u> would you offer to improve these processes?	
	(i) Adoption/rejection criteria	
	(ii) Process effectiveness and efficiency	
	(iii) Sufficient information to understand content and intent	It would greatly help if there are sessions where each standard is taken up along with the stakeholders/committee set up with stakeholders' representation. The author/originator/standard owner could go over the intent/content and feedback. This will be a good opportunity for all stakeholders to engage and validate their understanding of the intent and requirements.
	(iv) Other	
5.	What <u>challenges</u> do you see with the <b>existing standards implementation processes</b> versus the approach identified in Q1, and what <u>suggestions</u> would you offer to improve these processes?	The compliance process seems follow a format based approach while the implementation process is more generic in terms of acceptable measures. Either approach is ok as long as it is consistent and clear to market participants, and the intent and implementation are consistent.
	(i) Process effectiveness and efficiency	
	(ii) Sufficient information to implement (e.g. Information Documents, NERC guidance, AESO technical sessions)	
	(iii) Barriers to implement standards (e.g. lack of understanding of measures)	It would greatly help to review/moderate the language used in the standards and/or provide technical sessions/examples so that market participants can fully understand the implementation requirements/measures.
	(iv) Other	
6.	What <u>challenges</u> do you see with the <b>existing standards compliance</b>	

Questions	Stakeholder Comments
<b>monitoring program and its associated processes</b> versus approach identified in Q1, and what <u>suggestions</u> would you offer to improve this program and its processes?	
(i) Compliance monitoring program (CM program) effectiveness and efficiency (e.g. three-year cycle, monitoring tools)	The AESO should consider adjusting the compliance cycle based on risk of the MP, history of the MP, as well as its view of the self-assessment process.
(ii) Monitoring processes' effectiveness and efficiency (e.g. audit, self-certification, evidence requirements)	It would be beneficial for the AESO to provide a feedback after self-certification is submitted. This would allow MP to implement corrective measures immediately instead of waiting for the next audit (on a 3 year cycle).
(iii) Sufficient information to comply	Increase the submittal period from 30 days to 60 days for both self-certification and audit to allow enough time to prepare evidence for entities with significant volumes of data.
(iv) Sufficient information to prepare and submit information, including evidence	<p>During the audit fieldwork, the timing to provide answers to information requests (IR) was very tight and limited context was provided for the intent of the request.</p> <p>One option would be for the AESO to consolidate all the IR and share with MP on a weekly basis via teleconference so there will be an opportunity for the auditor to explain the intent of the IR and allow the MP to clarify evidence already submitted.</p> <p>It would be preferable to allow 5 business days to MP to provide quality answers.</p>
(v) Barriers to follow the CM program	<p>It appears the AESO and MPs would both benefit from AESO should having additional flexibility to determine if the intent of a standard is being achieved, in situations in which the format or presentation of evidence is currently viewed as suspected contravention.</p> <p>The AESO should consider providing a view on risk, recommendations and best practices to complement suspected contraventions.</p>
(vi) Barriers to adhere to monitoring processes and timelines	The AESO audit report should provide clear directions on what is required to meet compliance, including examples of what evidence should be for each potential suspected contraventions.



Questions		Stakeholder Comments
		<p>Mitigations plans should be reviewed and approved by the auditor in order to ensure MP achieved compliance. Presently, the AESO audit report only highlights the areas of potential non-compliance but no feedback is provided on the overall performance.</p> <p>Example: meet or exceed ARS, need improvement, not satisfactory.</p>
	(vii) Other	<p>The AESO audit report only highlights the areas of potential non-compliance but no feedback is provided on the overall performance.</p> <p>Example: meet or exceed ARS, need improvement, not satisfactory etc.</p>
7.	What area of knowledge transfer (e.g. training, education and awareness) could the AESO bolster to better equip market participants to prepare for and adhere to compliance monitoring processes?	AESO could introduce online training modules along with subject matter expert contacts that the market participants can then embed in their company specific learning management systems. This will ensure consistent training platform where the concerned employees can get trained and assessed with the intent and measures of applicable standards in their areas.
8.	What is the <u>one thing</u> you would recommend the AESO do in 2022 – if you could only do one thing next year – to enhance and drive efficiencies in the standards development, implementation and compliance monitoring approaches and processes?	To clearly identify assets that are key to Alberta Grid reliability and have a scalable program depending on the asset criticality
9.	For the upcoming consultation kicking off in 2022, please rank the following work streams in your preferred priority order:	
	(i) Development approach	6
	(ii) Implementation approach	1
	(iii) Compliance monitoring approach	2
	(iv) Development processes	4

Questions		Stakeholder Comments
	(v) Implementation processes	5
	(vi) Compliance monitoring processes	3
	(vii) Other	
10.	Additional comments	

Thank you for your input. Please email your completed matrix to: [stakeholder.relations@aeso.ca](mailto:stakeholder.relations@aeso.ca)

# Stakeholder Comment Matrix – Nov. 23, 2021

Alberta Reliability Standards (ARS) Development & Monitoring | Existing ARS Program



Comment period:	<b>Nov. 23, 2021 to Jan 21, 2022</b>	Contact:	Julio Aparicio
Comments from:	Suncor Energy Inc.	Phone:	(403) 296-8953
Date:	[2022/01/21]	Email:	japaricio@suncor.com

## Instructions

1. Please fill out the section above as indicated.
2. Please respond to the questions below and provide your specific comments.
3. **Please submit one completed comment matrix per organization.**
4. **Stakeholder comment matrices will be published on [aeso.ca](https://www.aeso.ca), in their original state.**
5. Email your completed comment matrix to [stakeholder.relations@aeso.ca](mailto:stakeholder.relations@aeso.ca) by Jan 21, **2022**.

## Request for feedback

The AESO is seeking feedback from interested stakeholders on their perspectives as it relates to the current ARS Program, and on identifying and prioritizing areas of potential improvement opportunities. The AESO values stakeholder feedback and invites all interested stakeholders to provide their comments on the following questions. Please be as specific as possible with your responses. Thank you.

Questions		Stakeholder Comments
1.	What <u>challenges</u> do you see with the AESO's <b>existing ARS Program, specifically its approaches to standards development, implementation and monitoring</b> , and what <u>suggestions</u> would you offer to improve these approaches?	
	(i) Standards development approach	The proposed draft standards are often very high level. The requirements and measures are not very detailed, more details are required, and/or supporting guidelines are recommended.  Suncor suggests more time (i.e. two months of consultation period after requirements are drafted) is given to stakeholders to review proposed requirements compared to current practice.

Questions		Stakeholder Comments
		Suggest workshops with the AESO and stakeholders along with Information Documents (or guidelines documents) for a better understanding of the proposed requirements
	(ii) Standards implementation approach	The suggestions provided above in the “development approach” will minimize activities at this implementation stage.
	(iii) Standards compliance monitoring approach	Annual Self-Certification and 3-year Audit process are adequate in Suncor's view. However, we suggest Audits are comprehensive so that all requirements are sampled, and feedback is provided by the AESO for the new standards being audited for the first time.
2.	If the AESO was to adopt a more risk-based approach to its ARS Program overall, what factors should it include in its approach (e.g. priority criteria, risk, impact, frequency, history)?	Yes, please try to align with NERC.
3.	Do you know of a risk-based approach for standards development, implementation and compliance monitoring that has worked in other jurisdictions and might be applicable here? Please specify.	Suncor considers a risk-based approach when adopting standards and frameworks such as: ISO 27001/2, NIST Cybersecurity Framework, and NIST SP-800 series among others.
4.	What <u>challenges</u> do you see with the <b>existing standards development processes</b> versus the approach identified in Q1, and what <u>suggestions</u> would you offer to improve these processes?	
	(i) Adoption/rejection criteria	<ol style="list-style-type: none"> <li>1. Suncor suggests adopting the NERC version of standards and guidelines with minimal modification in Alberta.</li> <li>2. Also suggest the AESO maintain ARS and ISO Rules separately so that compliance evidence does not overlap.</li> </ol>

Questions		Stakeholder Comments
	(ii) Process effectiveness and efficiency	As suggested earlier, Suncor requests additional time for the stakeholder comments period (i.e., two months of consultation period after requirements are drafted)
	(iii) Sufficient information to understand content and intent	Suncor suggests RSAWs, guidelines, and information documents be part of the stakeholder consultation.
	(iv) Other	No comments
5.	What <u>challenges</u> do you see with the <b>existing standards implementation processes</b> versus the approach identified in Q1, and what <u>suggestions</u> would you offer to improve these processes?	
	(i) Process effectiveness and efficiency	No comments
	(ii) Sufficient information to implement (e.g. Information Documents, NERC guidance, AESO technical sessions)	Suncor suggests RFIs responses during implementation period be more reasonable considering timeline to receive a reply from the AESO. Currently, Suncor noticed it may take months to get a response from the AESO, Suncor suggests the duration be reduced to 2 weeks. This will bring efficiency for us from a project and implementation point of view.
	(iii) Barriers to implement standards (e.g. lack of understanding of measures)	No comments
	(iv) Other	No comments
6.	What <u>challenges</u> do you see with the <b>existing standards compliance monitoring program and its associated processes</b> versus approach identified in Q1, and what <u>suggestions</u> would you offer to improve this program and its processes?	

Questions		Stakeholder Comments
	(i) Compliance monitoring program (CM program) effectiveness and efficiency (e.g. three-year cycle, monitoring tools)	No comments
	(ii) Monitoring processes' effectiveness and efficiency (e.g. audit, self-certification, evidence requirements)	No comments
	(iii) Sufficient information to comply	Suncor suggests RSAWs are prepared during the consultation period so we can have a clear expectation for evidence collection.
	(iv) Sufficient information to prepare and submit information, including evidence	Suncor realized sampling during audits is sometimes excessive. We realize all standards' scope are not the same. Please provide a guideline on the sample sizes so that the Auditor's expectations are clear, and we can prepare accordingly.
	(v) Barriers to follow the CM program	No comments
	(vi) Barriers to adhere to monitoring processes and timelines	No comments
	(vii) Other	<ol style="list-style-type: none"> <li>1. Suncor recommends the AESO (in addition to MSA) review and approve mitigation plans/corrective tasks originated from audit findings. This approach will help Market Participants be fully compliant with the audit findings going forward.</li> <li>2. Also suggest the AESO provide recommendations and industry best practices for suspected contraventions, where appropriate. This will help us understand AESO's expectations.</li> </ol>
7.	What area of knowledge transfer (e.g. training, education and awareness) could the AESO bolster to better equip market participants to prepare for and adhere to compliance monitoring processes?	<p>Suncor suggests more stakeholder engagements from the AESO on lessons learned, compliance expectations, preparation of RSAWs, etc. This will help market participants prepare better for self-certification and audits.</p> <p>For new standards, Suncor suggests in addition to the above that the AESO provide training/workshops.</p>

Questions		Stakeholder Comments
8.	What is the <u>one thing</u> you would recommend the AESO do in 2022 – if you could only do one thing next year – to enhance and drive efficiencies in the standards development, implementation and compliance monitoring approaches and processes?	Suncor suggests providing more clarity/guidelines for the most contravened ARS from audit findings and self-reports.
9.	For the upcoming consultation kicking off in 2022, please rank the following work streams in your preferred priority order:	
	(i) Development approach	2
	(ii) Implementation approach	5
	(iii) Compliance monitoring approach	7
	(iv) Development processes	1
	(v) Implementation processes	4
	(vi) Compliance monitoring processes	6
	(vii) Other (continuous improvement, lesson learned)	3
10.	Additional comments	No additional comments

Thank you for your input. Please email your completed matrix to: [stakeholder.relations@aeso.ca](mailto:stakeholder.relations@aeso.ca)

# Stakeholder Comment Matrix – Nov. 23, 2021

Alberta Reliability Standards (ARS) Development & Monitoring | Existing ARS Program



Comment period:	Nov. 23, 2021 to Dec. 17, 2021	Contact:	Hameed Zaman
Comments from:	TC Energy Ltd.	Phone:	403-399-8582
Date:	2022/01/21	Email:	Hameed_zaman@tcenergy.com

## Instructions

1. Please fill out the section above as indicated.
2. Please respond to the questions below and provide your specific comments.
3. **Please submit one completed comment matrix per organization.**
4. **Stakeholder comment matrices will be published on [aeso.ca](https://aeso.ca), in their original state.**
5. Email your completed comment matrix to [stakeholder.relations@aeso.ca](mailto:stakeholder.relations@aeso.ca) by **Dec. 17, 2021**.

## Request for feedback

The AESO is seeking feedback from interested stakeholders on their perspectives as it relates to the current ARS Program, and on identifying and prioritizing areas of potential improvement opportunities. The AESO values stakeholder feedback and invites all interested stakeholders to provide their comments on the following questions. Please be as specific as possible with your responses. Thank you.

Questions		Stakeholder Comments
1.	What <u>challenges</u> do you see with the AESO's <b>existing ARS Program, specifically its approaches to standards development, implementation and monitoring</b> , and what <u>suggestions</u> would you offer to improve these approaches?	TC Energy thanks the AESO for the opportunity to provide feedback on this important initiative and looks forward to working with the AESO on identifying and prioritizing areas of potential improvement.  TC Energy supports the AESO's goal of adopting risk-based approaches, integrating process efficiencies, and facilitating a common understanding of Alberta Reliability Standards (ARS) requirements and expectations for compliance among market participants.
	(i) Standards development approach	TC Energy proposes that "Technical Requirements and Expectations", "Define the evidence requirements", and "Audit worksheets", which are listed in the Implementation phase of the AESO's Program Components, should be moved to the Development phase. Knowing these items prior to Implementation would allow market participants to understand the requirements and expectations and implement a solution aligned with the AESO's expectations.



Questions	Stakeholder Comments
	<p>TC Energy proposes the establishment of an AESO-led forum for participants to have technical discussions about the reliability standards during the Development phase. The discontinued AESO ARCDG meetings were good forum to have such discussion and the removal of it has left a gap in industry's ability to gain understanding of the standards prior to the standard being approved. The AESO conducted a stakeholder session in lieu of the ARCDG which did not provide the same benefits.</p> <p>TC Energy suggests that the AESO's Information Documents (ID) related to Reliability Standards be subject to a consultation process prior to the ID becoming effective. For non-administrative changes, market participants don't have the opportunity to assess the impacts of the ID change to their implementation. Previous versions of ID documents should also be made available on the AESO website as previous versions of the reliability standards are available.</p>
(ii) Standards implementation approach	<p>TC Energy appreciates that for recent standards the AESO has been adopting implementation durations that were allowed by NERC. TC Energy requests the AESO to continue this approach as it allows market participants sufficient time for implementation.</p> <p>TC Energy notes that the AESO has been open to market participants using NERC guidelines for implementation in some cases and this is typically acknowledged by the AESO in the ID. To develop a common interpretation of the standards, TC Energy requests the AESO to consider generally allowing the use of NERC guidelines as reference during implementation.</p> <p>TC Energy suggests the AESO consider ways to revamp the Request for Information process for reliability standards to improve response times and effectiveness.</p>
(iii) Standards compliance monitoring approach	<p>TC Energy proposes using NERC's Risk-Based Compliance Monitoring and Enforcement Program (CMEP) and the Compliance Oversight Plan to develop a risk-based compliance monitoring program. The NERC program focuses on a market participants inherent and performative risk to determine audit and self-certification frequency. High inherent risk facilities with positive performance would be audited 2-4 years, whereas low inherent risk facilities with positive performance would be audited every 6+ years.</p> <p>The risk-based approach would remove the need to audit every market participant every 3 years, and instead allow the AESO and market participants to focus on facilities with higher</p>

Questions	Stakeholder Comments
	<p>inherent risk. Similarly, instead of auditing all or almost all standards, the audits should focus on standards with the potential for greater impact to the reliability of the grid.</p> <p>In conjunction, the self-certification process can be improved to reduce the need for annual self-certifications and audits. TC Energy is unclear whether the current annual self-certification process is providing value in enabling compliance in a timely manner. For example, if a market participant implemented a standard based on certain assumptions, it could be up to 3 years until the participant's next audit when the AESO would review the evidence of compliance to discover any issues. In WECC, a move towards Self-Certification with Evidence meant market participants were self-certifying to standards that were deemed high risk and providing evidence of compliance a few months after the standard became effective. WECC reviewed the evidence and provided feedback so the participant could improve their implementation, thereby providing immediate benefit to reliability and reducing the risk of a non-compliance for the market participant in the future.</p> <p>The AESO recently conducted lessons learned sessions and shared the learning from audits with market participants. The sessions were valuable, and TC Energy encourages the AESO to continue these sessions.</p>
2.	<p>If the AESO was to adopt a more risk-based approach to its ARS Program overall, what factors should it include in its approach (e.g. priority criteria, risk, impact, frequency, history)?</p>
3.	<p>Do you know of a risk-based approach for standards development, implementation and compliance monitoring that has worked in other jurisdictions and might be applicable here? Please specify.</p>

Questions	Stakeholder Comments
4. What <u>challenges</u> do you see with the <b>existing standards development processes</b> versus the approach identified in Q1, and what <u>suggestions</u> would you offer to improve these processes?	
(i) Adoption/rejection criteria	
(ii) Process effectiveness and efficiency	TC Energy encourages the AESO to explore options based on effectiveness and efficiency for the industry as a whole. As an example, the removal of the ARCDG may have reduced burden for the AESO but also removed the avenue for market participants to have productive technical discussion with the AESO. This may lead to reduced understanding of the standards and implementation challenges for market participants. As stated regarding the audit and self-certification challenges, it could be up to 3 years that an issue is detected.
(iii) Sufficient information to understand content and intent	As noted in response to Q 2.(ii), “Technical Requirements and Expectations”, “Define the evidence requirements”, and “Audit worksheets” should be part of the Development phase. In TC Energy’s view, the IDs, audit worksheets and compliance guidelines should be completed in this stage prior to submission of the AUC application. Typically, there is a delay between the time NERC implements a reliability standard and the AESO’s adoption of it. By this time, the AESO and industry have access to the guidelines and materials from the NERC consultation and should be able to leverage those materials during standard development.
(iv) Other	
5. What <u>challenges</u> do you see with the <b>existing standards implementation processes</b> versus the approach identified in Q1, and what <u>suggestions</u> would you offer to improve these processes?	See response to Q 2.(ii).
(i) Process effectiveness and efficiency	

Questions		Stakeholder Comments
	(ii) Sufficient information to implement (e.g. Information Documents, NERC guidance, AESO technical sessions)	
	(iii) Barriers to implement standards (e.g. lack of understanding of measures)	
	(iv) Other	
6.	What <u>challenges</u> do you see with the <b>existing standards compliance monitoring program and its associated processes</b> versus approach identified in Q1, and what <u>suggestions</u> would you offer to improve this program and its processes?	See response to Q2.(iii).
	(i) Compliance monitoring program (CM program) effectiveness and efficiency (e.g. three-year cycle, monitoring tools)	Changes to the AESO's compliance monitoring may necessitate changes to market participants internal compliance programs. As such, market participants may need time to update their internal compliance programs.
	(ii) Monitoring processes' effectiveness and efficiency (e.g. audit, self-certification, evidence requirements)	
	(iii) Sufficient information to comply	
	(iv) Sufficient information to prepare and submit information, including evidence	
	(v) Barriers to follow the CM program	
	(vi) Barriers to adhere to monitoring processes and timelines	
	(vii) Other	

Questions		Stakeholder Comments
7.	What area of knowledge transfer (e.g. training, education and awareness) could the AESO bolster to better equip market participants to prepare for and adhere to compliance monitoring processes?	The creation of an ARCDG-like forum for technical discussions as well as lessons learned sessions would be beneficial in allowing market participants to comply as per AESO expectations.
8.	What is the <u>one thing</u> you would recommend the AESO do in 2022 – if you could only do one thing next year – to enhance and drive efficiencies in the standards development, implementation and compliance monitoring approaches and processes?	TC Energy would recommend the AESO initiate consultation on the development of a risk-based compliance monitoring framework.
9.	For the upcoming consultation kicking off in 2022, please rank the following work streams in your preferred priority order:	
	(i) Development approach	3
	(ii) Implementation approach	5
	(iii) Compliance monitoring approach	1
	(iv) Development processes	4
	(v) Implementation processes	6
	(vi) Compliance monitoring processes	2
	(vii) Other	
10.	Additional comments	

Thank you for your input. Please email your completed matrix to: [stakeholder.relations@aeso.ca](mailto:stakeholder.relations@aeso.ca)

# Stakeholder Comment Matrix – Nov. 23, 2021

Alberta Reliability Standards (ARS) Development & Monitoring | Existing ARS Program



Comment period:	Nov. 23, 2021 to Dec. 17, 2021 / Jan. 21, 2022	Contact:	Morgan Tam
Comments from:	TransAlta	Phone:	403.267.4642
Date:	2022-01-21	Email:	Morgan_Tam@TransAlta.com

## Instructions

1. Please fill out the section above as indicated.
2. Please respond to the questions below and provide your specific comments.
3. **Please submit one completed comment matrix per organization.**
4. **Stakeholder comment matrices will be published on [aeso.ca](https://aeso.ca), in their original state.**
5. Email your completed comment matrix to [stakeholder.relations@aeso.ca](mailto:stakeholder.relations@aeso.ca) by **Dec. 17, 2021**.

## Request for feedback

The AESO is seeking feedback from interested stakeholders on their perspectives as it relates to the current ARS Program, and on identifying and prioritizing areas of potential improvement opportunities. The AESO values stakeholder feedback and invites all interested stakeholders to provide their comments on the following questions. Please be as specific as possible with your responses. Thank you.

Questions		Stakeholder Comments
1.	What <u>challenges</u> do you see with the AESO's <b>existing ARS Program, specifically its approaches to standards development, implementation and monitoring</b> , and what <u>suggestions</u> would you offer to improve these approaches?	
	(i) Standards development approach	<b>Challenges:</b> a) ARS versions and effective dates are out of synch with other NERC regions. The time gap is commonly more than 2 years lagging for the same version to be implemented in Alberta. For TransAlta, and other organizations that own and/or operate assets across multiple regions, this time gap necessitates sustaining multiple versions of the same standards, straining our resources. In addition: version updates are primarily triggered to

Questions	Stakeholder Comments
	<p>improve reliability and resolve confusion in the existing standard requirements. Therefore: when newer NERC versions are being developed and implemented in other regions, Alberta is still required to maintain compliance to our adoption based on older, NERC-retired reliability standards that no longer provide reliability benefits to the AIES from a North American perspective.</p> <p>b) Many current ARS applicability threshold are out of alignment with those of same standards in other NERC-regions. This results in the high number of smaller facilities bearing the compliance burden in Alberta where they would not be considered to be BES facilities using NERC threshold, creating an unfair advantage for Alberta assets in the competitive market. Scant disclosure of the rationale and/or technical justification with regards to reliability impact to the BES system is available.</p> <p>A specific example of this: PRC-004-AB2-1 applies to legal owner of a generating unit or aggregated generating facility with a MARP greater than 4.5MW. The current NERC version of the PRC-004-6 applies to generator owners connected to BES (. i.e., based on the BES definition includes generating unit with nameplate capacity greater than 20MVA/18MW or aggregated generating facility with nameplate capacity greater than 75MVA/67.5). Similar discrepancies exist on standard applicability for VAR-002-AB-4.</p> <p><b>Suggestions:</b></p> <p>a) and b) Alberta should review its approach on alignment with NERC: in timing of version adoption, wording of the reliability standards, and applicability thresholds.</p> <p>Other Canadian provinces are successfully maintaining processes to incorporate NERC standards into their reliability model.</p> <p>For example: TransAlta's assets in Ontario and New Brunswick fall within the jurisdictions of IESO and NBEUB. Both provinces and their respective regulatory organizations have established and maintained models closely aligned with NERC reliability standards wording and applicability, with virtually minimal time lag in the adoption / effective dates.</p> <p>Our experience has informed us that both the IESO and NBEUB also maintain a process to align the applicability criteria with the corresponding NERC reliability standard.</p>

Questions	Stakeholder Comments
	TransAlta suggests these examples as a starting point should the AESO become interested in adopting similar approaches as these provinces.
(ii) Standards implementation approach	See Stakeholder Comments listed in 1 (i), above.
(iii) Standards compliance monitoring approach	<p><b>Challenges:</b></p> <p>a) RSAW publication dates are not correlated with standard approval dates. Often they are available many months after the standards are approved. TransAlta respectfully provides feedback that the late publication of RSAWs effectively removed the opportunity provided by the time window from approval date to effective date, where the majority of implementation work occurs.</p> <p>b) Annual Self-Certification scope currently includes 100% coverage of applicable standards.</p> <p>c) Audit scope is still onerous, compared to other regions, despite AESO's approach of leveraging the Core Audit Requirements list. Scope selection criteria also lacks transparency for the auditee.</p> <p>d) Some assets are living with different end-dates for audit coverage and self-certification, creating in some cases the need for operations to keep two sets of evidence.</p> <p><b>Suggestions:</b></p> <p>a) TransAlta suggests that the AESO develop the RSAWs in parallel with standards development such that RSAWs for newly-approved standards are made available at the time the standards are approved to aid implementation.</p> <p>b) Reduce scope of Annual Self-Certification by utilization some kind of risk-based framework.</p> <p>c) Reduce scope of audits by relying on risk-analysis that takes into account past self-reports, risk to the BES, and prior compliance history, among other factors. TransAlta also suggests the AESO's compliance monitoring program incorporate more flexible time-gap</p>



Questions	Stakeholder Comments
	<p>between audits: longer duration for market participants who has demonstrated mature and strong compliance program, and vice-versa.</p> <p>d) Align the audit and self-certification end-dates as a matter of course.</p>
2.	<p>If the AESO was to adopt a more risk-based approach to its ARS Program overall, what factors should it include in its approach (e.g. priority criteria, risk, impact, frequency, history)?</p> <p>The AESO should contemplate facilities based on highest reliability impact to the grid. Those with little or no impact should have less risk and therefore less need to audit every 3 years.</p> <p>Please also see comment in 1 (iii) (b) and (c) above.</p>
3.	<p>Do you know of a risk-based approach for standards development, implementation and compliance monitoring that has worked in other jurisdictions and might be applicable here? Please specify.</p> <p>a) TransAlta respectfully suggests NERC and regional organizations (e.g. WECC) audit / compliance monitoring approach as good models for starting this transformation. Please consult the Ontario and New Brunswick regulators' approach on adopting, implementing, and monitoring NERC reliability standards.</p> <p>b) Audits: For TransAlta assets outside of Alberta, the regions perform audits variously from once every five years or sometimes less frequently. Ontario utilizes "spot checks" to request evidence on one or two Requirements over a period of 12 months, for example.</p> <p>c) Self Certifications: no other regions, outside of Alberta, where TransAlta operates mirrors AESO's current approach. NBEUB in New Brunswick maintains a similar "certification" request albeit with a much reduced scope compared to Alberta's 100%. Every year, we are asked to self-certify on a subset of applicable standards and requirements.</p> <p>d) Most regions put in place incentives for market participants with mature compliance program and strong compliance practices to lengthen the time between audits to 6+years.</p> <p>See the NERC Compliance Oversight Plan ("COP") approach in the following linked document: pages 26 to 38.</p> <p><a href="https://www.nerc.com/pa/Stand/Workshops/Day%20Two%20Presentation.pdf">https://www.nerc.com/pa/Stand/Workshops/Day%20Two%20Presentation.pdf</a></p>
4.	<p>What <u>challenges</u> do you see with the <b>existing standards development</b></p> <p>Please refer to Stakeholder Comments listed in 1(i), above.</p>

Questions		Stakeholder Comments
	<b>processes</b> versus the approach identified in Q1, and what <u>suggestions</u> would you offer to improve these processes?	
	(i) Adoption/rejection criteria	
	(ii) Process effectiveness and efficiency	
	(iii) Sufficient information to understand content and intent	
	(iv) Other	TransAlta would also like the AESO to improve transparency on feedback and consultation processes such as this one.
5.	What <u>challenges</u> do you see with the <b>existing standards implementation processes</b> versus the approach identified in Q1, and what <u>suggestions</u> would you offer to improve these processes?	Please refer to Stakeholder Comments listed in 1(i), above.
	(i) Process effectiveness and efficiency	
	(ii) Sufficient information to implement (e.g. Information Documents, NERC guidance, AESO technical sessions)	
	(iii) Barriers to implement standards (e.g. lack of understanding of measures)	
	(iv) Other	In addition, TransAlta welcomes AESO hosting stakeholder engagement sessions that encourages safe, two-way interaction between the AESO and the market, to help with the design and interpretation of new standards during standards development. This had happened more regularly in the past and hasn't been contemplated since FAC-008.
6.	What <u>challenges</u> do you see with the <b>existing standards compliance</b>	Please refer to Stakeholder Comments listed in 1(iii), above.

Questions		Stakeholder Comments
	<b>monitoring program and its associated processes</b> versus approach identified in Q1, and what <u>suggestions</u> would you offer to improve this program and its processes?	
	(i) Compliance monitoring program (CM program) effectiveness and efficiency (e.g. three-year cycle, monitoring tools)	
	(ii) Monitoring processes' effectiveness and efficiency (e.g. audit, self-certification, evidence requirements)	Audit and self-certification scope should be reduced. It is a severe burden for organizations to collaborate / prepare / mitigate on audit work that frequently covers 12+ months in duration. The audit focus should be on new and/or highly contravened standards.
	(iii) Sufficient information to comply	
	(iv) Sufficient information to prepare and submit information, including evidence	
	(v) Barriers to follow the CM program	
	(vi) Barriers to adhere to monitoring processes and timelines	
	(vii) Other	
7.	What area of knowledge transfer (e.g. training, education and awareness) could the AESO bolster to better equip market participants to prepare for and adhere to compliance monitoring processes?	TransAlta appreciates the AESO's current practice of hosting stakeholder sessions and training opportunities. In addition, it would be useful to make the recordings of these sessions available for more sustained, on-going advocacy, and specifically, for those people who cannot attending due to scheduling conflict.
8.	What is the <u>one thing</u> you would recommend the AESO do in 2022 – if you could only do one thing next year – to enhance and drive efficiencies in the standards development, implementation	TransAlta recommends the AESO resumes hosting Alberta Reliability Compliance Discussion Group ("ARCDG") monthly meetings as a safe forum for discussing standards development, implementation, and compliance monitoring. These meetings in their original format stopped in 2019 Q4, resuming in a modified format as a quarterly Zoom meeting with a speaker and Q&A time at the end.

Questions		Stakeholder Comments
	and compliance monitoring approaches and processes?	The ARCDG's original format brought significant enhancement, drove efficiencies in the standards development, implementation, and compliance monitoring approaches, and help both the AESO and market collaborate in Alberta's reliability.
9.	For the upcoming consultation kicking off in 2022, please rank the following work streams in your preferred priority order:	
	(i) Development approach	1
	(ii) Implementation approach	
	(iii) Compliance monitoring approach	2
	(iv) Development processes	
	(v) Implementation processes	
	(vi) Compliance monitoring processes	3
	(vii) Other	
10.	Additional comments	<ol style="list-style-type: none"> <li>1. Audits can include In-person (field visits) for CIP-002 and CIP-003.</li> <li>2. Managing the RFI process is quite challenging without a tracking mechanism. TransAlta suggests an easy win to implement a "case number" to be assigned when RFI's are submitted.</li> <li>3. Another area to leverage technology is to look for opportunities to automate workflows to add clarity on pending action items: for e.g. RFI's, self-report mitigation plans.</li> <li>4. Resume engagement with industry on development of standards. E.g. resume interaction of AESO Standard Owners with industry SME's especially on developing technical standards. Technical working groups interactions were useful in the past.</li> </ol>

Questions	Stakeholder Comments
	<p>5. TransAlta requests the AESO to develop an approach for consistent adoption of US NERC White Papers and Lessons Learned publications for the corresponding ARS versions.</p> <p>6. AESO's auditor's interpretation of the standard, and their approach to auditing, can be a) made clearer by make the RSAWs more explicit, and b) made more similar to other regions, so that market participants in Alberta can benefit from NERC guidance documents for interpretation and implementation.</p> <p>-</p>
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Thank you for your input. Please email your completed matrix to: [stakeholder.relations@aeso.ca](mailto:stakeholder.relations@aeso.ca)