

Information Document

Technical Feasibility Exceptions

ID #2016-005RS



Information Documents are not authoritative. Information Documents are for information purposes only and are intended to provide guidance. In the event of any discrepancy between an Information Document and any Authoritative Document(s) in effect, the Authoritative Document(s) governs.

1 Purpose

This Information Document relates to the following Authoritative Document¹:

- Alberta Reliability Standard CIP-SUPP-002-AB, *Technical Feasibility Exceptions* ("CIP-SUPP-002-AB").

The purpose of this Information Document is to describe the process by which a Responsible Entity, as referenced in Alberta Reliability Standard CIP-002-AB-5.1, *Cyber Security BES Cyber System Categorization* ("CIP-002-AB-5.1"), may request and obtain approval for a technical feasibility exception ("TFE") to those requirements of the Critical Infrastructure Protection Alberta reliability standards² ("CIP ARS") that use the phrase "where technically feasible." This Information Document is likely of most interest to Responsible Entities to whom the CIP ARS apply.

2 Background

The AESO is mandated under Sections 19(2) and 23(1) of the *Transmission Regulation* to develop reliability standards and establish practices and procedures for monitoring market participants' compliance with the reliability standards. Under this mandate, the AESO filed the CIP ARS and CIP ARS Definitions with the Alberta Utilities Commission ("Commission"), which were approved on September 14 and September 15, 2015, respectively.³ The CIP ARS and CIP ARS Definitions will become effective on October 1, 2017.

A number of the CIP ARS requirements include the phrase "where technically feasible" to recognize that a wide range of equipment already installed by market participants has not been designed nor can be easily upgraded to fully align with the applicable CIP ARS requirements. Requirement R1 in CIP-SUPP-002-AB allows a Responsible Entity, where a CIP ARS requirement uses the phrase "where technically feasible," to seek a variance from the requirement by requesting that the AESO approve a TFE.

3 Technical Feasibility Exceptions

An approved TFE authorizes an alternative means of compliance with the CIP ARS requirement through the use of compensating and/or mitigating actions that achieve a comparable or higher level of reliability of the Alberta interconnected electric system as would compliance with the requirement.

4 Submission of a TFE Request

4.1 Components of a TFE Request

A TFE request includes the following information:

- (a) a completed TFE request form posted on the [AESO's website](#) (see Appendix A), that contains:
 - (i) the applicable CIP ARS requirement,

¹ "Authoritative Documents" is the general name given by the AESO to categories of documents made by the AESO under the authority of the *Electric Utilities Act* and regulations, and that contain binding legal requirements for either market participants or the AESO, or both. AESO Authoritative Documents include: the ISO rules, the Alberta reliability standards, and the ISO tariff.

² CIP-005-AB-5, CIP-006-AB-5, CIP-007-AB-5, CIP-010-AB-1.

³ AUC Decisions 3441-D01-2015 and 3442-D01-2015.

- (ii) a description of the asset(s),⁴
 - (iii) the grounds for the TFE request, as set out in subsection 5 of this ID,
 - (iv) the proposed expiration date of the TFE, and
 - (v) written approval of the TFE request by the senior manager associated with the overall responsibility for leading and managing the Responsible Entity's implementation and adherence to the CIP ARS, hereinafter referred to as the "primary contact"; and
- (b) a documented mitigation plan associated with the TFE, including a schedule for the completion of milestones and a completion date for the implementation of the mitigation plan; and
 - (c) a documented remediation plan to eliminate the TFE and achieve compliance with the applicable CIP ARS requirement, including milestones and a reasonable expiration date of the TFE or, when remediation is not possible, ongoing and effective mitigation strategies.

A market participant may submit a TFE request prior to the effective date of CIP-SUPP-002-AB. The AESO may issue conditional approvals for these requests, as described in subsection 6.2 below.

4.2 Submission of a Single TFE Request for Multiple Assets

A Responsible Entity may submit a single TFE request from the same requirement for multiple assets, at one or more locations, when all of the following criteria are met:

- (a) the grounds for the TFE request is the same for all assets;
- (b) the mitigation and remediation plans are the same for all assets; and
- (c) the proposed expiration date of the TFE is the same for all assets.

4.3 Contact Information for Submission of TFE Requests

A TFE request, new or revised, and any related inquiries regarding a TFE request may be directed to RFI@aeso.ca.

The AESO directs all communications regarding TFEs to the primary contact identified in the TFE request form, unless notified by the Responsible Entity, in writing.

5 Approval of a TFE Request

5.1 Criteria for Approval of a TFE Request

Pursuant to requirement R5 of CIP-SUPP-002-AB, in determining whether to approve a TFE request, the AESO considers the following criteria:

- (a) whether, in the determination of the AESO, the grounds relied on by the Responsible Entity for making the TFE request, as described below, are satisfactory;
- (b) where the grounds relied upon are determined to be satisfactory, whether:
 - (i) the proposed mitigation plan, in the determination of the AESO, would achieve a level of reliability of the Alberta interconnected electric system comparable to or higher than compliance with the requirement; and

⁴ Asset means any of the following defined terms: "BES cyber asset", "BES cyber system", "protected cyber asset", "electronic access control" or "monitoring system", or "physical access control system", as posted on the [AESO's website](#) with the effective date of October 1, 2017.

- (ii) the proposed remediation plan to eliminate the TFE, in the determination of the AESO, is satisfactory.

5.2 Grounds for a TFE Request

A Responsible Entity may request a TFE on the grounds that compliance with a CIP ARS requirement, evaluated in the context or environment of the Responsible Entity's asset that is subject of the TFE request:

- (a) is not technically possible or is precluded by technical limitations;
- (b) is operationally infeasible or could adversely affect reliability of the Alberta interconnected electric system to an extent that outweighs the reliability benefits of compliance with the requirement;
- (c) while technically possible and operationally feasible, cannot be achieved by the date the Responsible Entity is required to comply with the CIP ARS due to factors such as scarce technical resources, limitations on the availability of required equipment or components, or the need to construct, install or modify equipment during planned outages;
- (d) would pose safety risks or issues that outweigh the reliability benefits of compliance with the requirement;
- (e) would conflict with, or cause the Responsible Entity to be non-compliant with, a separate statutory or regulatory requirement applicable to the Responsible Entity, the asset or the related facility that must be complied with and cannot be waived or exempted; or
- (f) would require the incurrence of costs that far exceed the benefits to the reliability of the Alberta interconnected electric system of compliance with the requirement, such as requiring the retirement of existing equipment that is not capable of compliance with the requirement but is far from the end of its useful life and replacement with newer-generation equipment that is capable of compliance, where the incremental risk to the reliable operation of the asset and to the reliable operation of the facility and the Alberta interconnected electric system of continuing to operate with the existing equipment is minimal.

6 Review and Approval/Disapproval Process for a TFE Request

6.1 Review of a TFE Request

The Responsible Entity is responsible for applying, substantiating, obtaining approval of and maintaining a TFE.

A Responsible Entity may revise a pending TFE request that is under review by the AESO, for the purpose of providing additional or revised information, including changes to the mitigation or remediation plans. The objective of the AESO's review is to make a determination as to whether a TFE request substantiates the criteria for approval.

The AESO's review process is intended to be an exchange of information that maximizes the chances of a TFE request being approved. However, the AESO may need to expand its review beyond the CIP ARS requirement specified in the TFE request when the proposed mitigation or remediation measures involve CIP ARS requirements that are not subject to the TFE request. In such circumstances, if the AESO suspects a possible breach of these CIP ARS requirement(s), it may initiate a formal compliance assessment.

The AESO conducts an appropriate case-by-case assessment of the particular facts and circumstances of each TFE request and therefore the processing time for each request will vary. The CIP ARS are new to Alberta, and the AESO's and market participant's experience with them is at an early stage.

6.2 Approval/Disapproval of a TFE Request

Pursuant to requirement R6 of CIP-SUPP-002-AB, the AESO issues a notice of approval or disapproval of the TFE request that may contain the following:

- (a) a statement of approval/disapproval of each TFE request;
- (b) any terms and conditions of the approval;
- (c) the expiration date of the approval;
- (d) the milestones and completion date the Responsible Entity is required to achieve with respect to the implementation of the mitigation plan;
- (e) the milestones the Responsible Entity is required to achieve with respect to the implementation of the remediation plan to achieve compliance with the CIP ARS requirement(s);
- (f) the Responsible Entity's reporting requirements to the AESO regarding the implementation of mitigation and remediation plans; and
- (g) any other requirements or information the AESO has determined to be necessary in the circumstances.

Prior to the effective date of CIP-SUPP-002-AB, the AESO may issue approvals of TFE requests that are conditional upon CIP-SUPP-002-AB coming into effect. The effective date of these approvals will be the effective date of CIP-SUPP-002-AB.

6.3 Approval in Whole or in Part

The AESO may approve or disapprove the TFE request in whole or in part where the TFE request is for two or more assets subject to the same requirement.

6.4 Decision Dispute Process

A Responsible Entity may use the dispute process in Section 103.2 of the ISO rules, *Dispute Resolution*, in addition to other legislative avenues, to dispute the AESO's decisions related to approving or disapproving of a TFE.

6.5 Transfer of an Approved TFE

An approved TFE may be transferred from one Responsible Entity to another as a result of changes to the asset ownership. To complete the transfer, the new owner notifies the AESO within sixty days of the effective date of the transfer.

7 Compliance Information

7.1 Compliance Monitoring

The AESO will monitor compliance with a CIP ARS from its effective date.

In the absence of a TFE approval, the AESO will treat a TFE request as evidence of non-compliance with a requirement of the CIP ARS. Issues of non-compliance will be referred to the Market Surveillance Administration ("MSA") and Responsible Entities may work directly with the MSA to seek forbearance or self-report.

Compliance with a CIP ARS requirement subject to an approved TFE will be monitored in accordance with the approved TFE and its associated terms and conditions from the date of its approval. The AESO will monitor compliance with a CIP ARS requirement after the date of expiration or termination of a TFE.

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7.2 Conditions of TFE Approval

To maintain approval of a TFE, the Responsible Entity fulfills the terms and conditions of approval, as set out by the AESO pursuant to requirement R6.2 of CIP-SUPP-002-AB, including:

- (a) implementation and maintenance of the mitigation plan specified in the TFE request, in accordance with the time schedule specified, and
- (b) implementation of the remediation plan specified in the TFE request, in accordance with the time schedule specified.

8 Submitting a Revised TFE Request

Pursuant to requirement R7 of CIP-SUPP-002-AB, when a material change in the facts underlying the request for or approval of a TFE is identified, the Responsible Entity submits a revised TFE request within sixty days of the identification or discovery of the material change. The revised TFE request may include, where applicable:

- (a) a reference to the applied-for or approved TFE;
- (b) a description of the material change in the facts;
- (c) justification of the continuing need for the approved TFE; and
- (d) notice that the Responsible Entity has achieved compliance with the CIP ARS requirement.

A material change in the facts underlying the request for or approval of a TFE is a change that may cause the AESO to amend or terminate an approved TFE, or to arrive at a different determination regarding the approval or disapproval of a requested TFE. A material change may include, but is not limited to, a change in the facts which would have caused the AESO to disapprove the TFE request, a change in the Responsible Entity's ability to meet a term or condition in the approved TFE, a change resulting in an adverse effect on the reliability of the interconnected electric system, or a change in the market participant's ability to successfully comply with the applicable CIP ARS requirement.

Note that a breach of a term or condition of an approved TFE constitutes a material change and also constitutes a breach of the applicable CIP ARS requirement.

9 Amendment or Termination of the TFE

Pursuant to requirement R8 of CIP-SUPP-002-AB, the AESO may amend or terminate a TFE prior to the expiration date of the TFE. The Responsible Entity will be notified, in writing, of the AESO's intent to amend the TFE or terminate the TFE early and of the effective date of the amendment or termination.

10 Information Document Amendment

The AESO will issue a notification of amendment to this Information Document in the stakeholder newsletter 30 days prior to the effective date of the amendment(s).

11 Appendices

Appendix A – TFE Request Form

Revision History

Posting Date	Description of Changes
2017-02-13	Initial release