Alberta Electric System Operator System Criteria Compliance Filing and Report Pursuant to Directions 13 and 14 from Decision 22942-D02-2019

November 30, 2021

Alberta Electric System Operator

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Appendices

1. Introduction

1. On September 22, 2019, the Alberta Utilities Commission ("**Commission**") issued Decision 22942- D02-2019[1] ("**Decision**") regarding the AESO's 2018 comprehensive ISO tariff application.

2. In the Decision, the Commission directed the AESO:

> "… to work with the DFOs to develop an objective set of criteria for the initiation of system transmission projects reflecting the Commission's findings in [the Decision]"[2]
> ("**Direction 13**")

and

> "to provide a report on the status of such discussions, including a discussion of any criteria the AESO would propose for determining "grey area" system projects at the time of its next comprehensive GTA"[3]
> ("**Direction 14**").

3. Pursuant to sections 30 and 119 of the *Electric Utilities Act* ("**Act**"), the AESO seeks the Commission's confirmation that the AESO has satisfactorily responded to Direction 13 and Direction 14.

4. This compliance filing and report includes the written stakeholder engagement materials prepared by the AESO as a result of Direction 13, and which have been included as Appendix B to this compliance filing and report.

5. The AESO notes that Direction 14 contemplates that this compliance filing and report is to be filed as part of the AESO's next comprehensive general tariff application. As previously submitted by the AESO,[4] the AESO is taking a modular approach to its tariff applications, and is therefore filing this compliance filing and report on a stand-alone basis, separate and apart from other tariff matters that will be addressed in future tariff applications.

1.1 Organization of Application

6. This compliance filing and report is organized into the following sections:

[1] AUC Decision 22942-D02-2019, *Alberta Electric System Operator, 2018 Independent System Operator Tariff* (September 22, 2019).
[2] Decision para. 607, PDF 146.
[3] Decision para. 608, PDF 146.
[4] Exhibit 26911-X0001, PDF 9, para. 16.

2. Compliance with Directions 13 and 14

2.1 Background

7. The AESO considers the following high-level background to be helpful to an understanding of the criteria that the AESO has developed in response to Direction 13.

8. The AESO is responsible under the Act for (i) planning and making arrangements for Alberta's transmission system so that it meets the current and future needs of electricity market participants,[5] and (ii) providing market participants with system access service on the transmission system in a manner that gives all market participants wishing to exchange energy and ancillary services a reasonable opportunity to do so.[6] These duties are reflected in the different types of transmission projects that the AESO may be required to initiate in accordance with section 34 of the Act, which distinguishes broadly between two types of transmission projects:

- "system projects" (also referred to as "system transmission projects"),[7] being transmission projects that the AESO may initiate *in response to an AESO-identified need* to expand or enhance the capability of the transmission system, in accordance with sections 34(1)(a) and (b). For these types of projects, a "system needs identification document" or "system NID" is generally required to be filed by the AESO for review and approval by the Commission; and

- "connection projects",[8] being transmission projects that the AESO initiates *in response to a request for new or modified system access service* ("**SASR**") that is received from a market participant in accordance with section 34(c). For these types of projects, a "connection needs identification document" or "connection NID"[9] is generally required to be filed by the AESO for review and approval by the Commission.

9. Notwithstanding the distinction between "system projects" and "connection projects", it is important to note that for purposes of regulatory efficiency, the AESO may include an AESO-initiated system project as a "system-related" component of a connection NID that is filed for approval with the Commission.

10. The costs associated with a system project (or system-related component of a connection project) that has been initiated by the AESO are incurred for the benefit of the interconnected electric system and are recovered from all load ratepayers in accordance with the ISO tariff.

11. Conversely, for connection projects, the AESO is required under the ISO tariff to classify transmission facility costs as either:

- "participant-related", which is appropriate for transmission facility costs that are incurred solely as a result of a SASR that has been submitted by a market participant and solely for the purpose of providing system access service to the market participant. Costs that have been classified as participant-related under the ISO tariff are recovered through a combination of an up-front

[5] Sections 17(i)-(j) of the Act.
[6] Section 29 of the Act.
[7] Pursuant to sections 34(1)(a) and (b) of the Act.
[8] Pursuant to section 34(1)(c) of the Act.
[9] Connection NIDs are generally filed as "abbreviated needs identification documents" (ANIDs) in accordance with the eligibility criteria established in AUC Rule 007: *Applications for Power Plants, Substations, Transmission Lines, Industrial System Designations, Hydro Developments and Gas Utility Pipelines*.

contribution payment required from the market participant that submitted the SASR, and AESO investment that is recovered over time from load ratepayers; or

- "system-related", which is appropriate for transmission facility costs that, like system project costs, are incurred as a result of an AESO-identified need to expand or enhance the capability of the transmission system, and which have been included, for purposes of regulatory efficiency, as a component of a connection project. Like the costs of system projects, the system-related costs of a connection project are recovered from load customers in accordance with the ISO tariff.

2.2 The AESO's system project criteria

12. In consultation with distribution facility owners ("**DFOs**") and other stakeholders, the AESO has developed the following system project criteria ("**System Criteria**") to be applied on a case-by-case basis and to clarify when the AESO will initiate a system project.

System Criteria #1

Reliability Criteria Violations and Congestion-Free Requirements

13. Section 15 of the *Transmission Regulation* ("**T-Reg**") requires the AESO to plan a transmission system that satisfies Alberta reliability standards, to ensure that transmission facilities adhere to Alberta reliability standards, and to monitor and ensure the overall reliability of the interconnected electric system.[10] Section 15 of the T-Reg also requires the AESO to plan a system that is substantially free of congestion.[11]

14. Consequently, when the AESO observes a forecast violation within the AESO's 20 year planning horizon (on the basis of planning studies that rely on forecasts and reasonable assumptions) of either (i) the AESO's reliability criteria, which are derived from Alberta reliability standards ("**Reliability Criteria**"), or (ii) the congestion-free performance standards that the AESO is required to meet under section 15 of the Regulation, the AESO will develop a plan to mitigate these violations.

15. Typically, observed forecast violations are first identified by the AESO in the long-term transmission system plans that the AESO is required to develop.[12] These violations are then prioritized to determine when a system project (for which a system NID is generally required) should be initiated, and to further confirm and study any expansion or enhancement of the transmission system that may be required.

16. Two examples of the application of System Criteria #1, one involving transmission system expansion required as a result of a forecast N-0 thermal overload (a Reliability Criteria violation) on an existing transmission line and the other involving transmission system expansion required as a result of a forecast N-1 thermal overload on existing transmission line (also a Reliability Criteria violation), were included as part of the presentation that the AESO discussed with DFOs and other stakeholders, and is included in the attached Appendix B at PDF 35-36.

17. For reference, a copy of the Reliability Criteria has been attached as Appendix A to this compliance filing and report.

[10] Sections 15(1)(a)-(c) of the *Transmission Regulation.*
[11] Sections 15(1)(e)-(f) of the *Transmission Regulation.*
[12] Sections 33 of the Act and Section 10(1)(a) of the *Transmission Regulation*.

System Criteria #2

Optimizing with end-of-life transmission facilities

18. Transmission facility owners ("**TFOs**") are responsible for determining when the transmission facilities that they own and operate are nearing end-of-life. When an asset is nearing end-of-life, the TFO has the option of moving forward with a like-for-like replacement (*i.e.*, maintaining the existing configuration) or, subject to confirmation from the AESO, proceeding with a system reconfiguration that would increase transmission system efficiency.

19. When a TFO determines that a transmission facility (such as a cable, substation, transformer, or breaker) is nearing end-of-life, the TFO may inform the AESO so that the AESO can assess the overall need for transmission system expansion or enhancement within the region as an alternative to a like-for-like replacement. In this situation, the TFO is required to describe the deteriorating asset condition to the AESO and the required timing for replacement of the transmission facility. The timing of when a transmission facility reaches end-of-life must coincide with the timing of a system need or construction timelines of transmission developments already associated with a system project.

20. If the AESO determines that a system reconfiguration would provide greater system benefit than a like-for-like replacement, a system project would be initiated at the appropriate time.

21. During the preparation of the system project, the TFO would work with the AESO to identify avoided asset lifecycle replacement costs so that the Commission can be made aware of the replacement costs avoided as a result of the system project.

22. Certain preconditions must exist in order for a system project to be initiated by the AESO as a result of System Criteria #2:

- The level of service or reliability provided to existing market participants must not be negatively impacted.
- The system reconfiguration must provide a measurable transmission system benefit, which may include the following:
    - The system reconfiguration is a lower-cost option than a like-for-like asset replacement.
    - The reduction of environmental and land use effects in the area, compared to a like-for-like asset replacement.
    - The reduction or mitigation of a system need that already exists or is forecast to exist in the area.

23. An example of the application of System Criteria #2 was included as part of the presentation that the AESO discussed with DFOs and other stakeholders, and is included in the attached Appendix B, PDF 38.

24. The AESO is committed to exploring further opportunities for coordination between the AESO and TFOs, to ensure that future opportunities to optimize the transmission system when transmission facilities are nearing end-of-life can be realized.

System Criteria #3

Optimizing the Interconnected Electric System for Greater Efficiency

25. Finally, System Criteria #3 is intended to address circumstances where the AESO determines that an expansion or enhancement of transmission system capability would result in the more efficient operation of the interconnected electric system (even in the absence of observed Reliability Criteria violations). In such cases, efficiency, including but not limited to lower overall cost and improved system performance for the benefit of all ratepayers, would be used to demonstrate the benefits of an enhancement or expansion of transmission system capability, and to justify the recovery of project costs from all load ratepayers under the ISO tariff.

26. An example of the application of System Criteria #3 was included as part of the presentation that the AESO discussed with DFOs and other stakeholders, and is included in the attached Appendix B, PDF 40.

2.3 Stakeholder Engagement

27. In response to Direction 13 and Direction 14, the AESO prepared a stakeholder engagement program to communicate and consult with DFOs, TFOs, and other stakeholders regarding the System Criteria.

28. On September 28, 2021, the AESO hosted two virtual meetings with focused stakeholder groups to present, discuss, and respond to questions about the criteria. Attendees for the morning session consisted of DFO and TFO groups, whereas the attendees for the afternoon session consisted of industry and rate payer groups.

29. Attendees for the morning session included:

- Altalink Management Ltd.
- ATCO Electric Ltd.
- City of Lethbridge
- City of Medicine Hat
- City of Red Deer
- ENMAX Power Corporation
- EPCOR Distribution and Transmission Inc. (“EDTI”)
- FortisAlberta Inc.

30. Attendees for the afternoon session included:

- Alberta Direct Connect Consumers Association
- Consumers Coalition of Alberta
- Industrial Power Consumers Association of Alberta
- Utilities Consumer Advocate

31. Both of the approximately two-hour sessions included an overview of the System Criteria, combined with question-and-answer roundtables following each criteria presented combined with question-and-answer roundtables following each criteria presented, along with a general question-and-answer segment following the AESO’s presentation. The presentation used by the AESO on September 28, 2021 was substantively identical to the copy included in the attached Appendix B, PDF 21, with minor differences to reflect different timing, audiences and the recording notice.

32. At the virtual meetings held on September 28th, 2021, the AESO responded to and discussed a variety of questions from stakeholders. A summary of these questions, and the AESO's responses, has been provided in the stakeholder engagement materials included in Appendix B, PDF 48 and 50. While the AESO responded to questions and clarifications during these two sessions, written feedback was not requested from participating stakeholders.

33. On October 7, 2021, the AESO posted an open invitation to all interested stakeholders to attend a stakeholder session scheduled for October 14, 2021. The invitation was communicated in the AESO's twice-weekly stakeholder newsletter publication and on the AESO's dedicated stakeholder engagement webpage.

34. A total of 61 stakeholders registered for the October 14th session. The approximately two-hour virtual session included an overview of the System Criteria, combined with question-and-answer roundtables following each criteria presented, along with a general question-and-answer segment following the AESO's presentation. included an overview of the System Criteria, combined with question-and-answer roundtables following each criteria presented. The session was recorded, and the audio recording was subsequently made available on the AESO stakeholder engagement webpage for stakeholders that were unable to attend. The presentation used for the session is included in Appendix B at PDF 21. A summary of questions raised and discussed by the AESO at the October 14th session has been provided in the stakeholder engagement materials and has also been included in Appendix B at PDF52.

35. During the October 14th session, the AESO indicated that an opportunity for written stakeholder feedback would subsequently be provided through a comment matrix posted to the AESO stakeholder engagement webpage. Stakeholders were asked to provide completed written comments by October 29, 2021 for the AESO's review. The AESO received responses from only four stakeholders, which were published to the AESO engagement webpage. The completed comment matrices are included as Appendix C.

36. The AESO does not consider any significant concerns to arise from the written stakeholder feedback that was received. However, in response to the written feedback received from stakeholders, the AESO also offered individual meetings with ENMAX and TransAlta, who provided comments of a more substantive nature, to facilitate a clearer understanding of the System Criteria. A follow-up meeting was subsequently held with representatives from ENMAX**.**

37. A copy of the written stakeholder feedback received by the AESO, together with the AESO's responses, is included as Appendix C.

38. The AESO considers that the stakeholder engagement process described above provided a valuable opportunity for the AESO to communicate the criteria to stakeholders and to understand matters of interest and concern to stakeholders.

39. Following the Commission's review of this compliance filing and report, the AESO intends to make the System Criteria it has developed publicly available on the AESO's website.

2.4 "Grey area" considerations

40. In Decision 22367-D01-2017, the Commission confirmed its prior guidance that "grey area" situations for a connection project should be presumptively classified as participant-related under the ISO tariff:

> … as previously described by the Commission in its past decisions, the exercise of classifying costs as either participant-related or system-related is an approach that requires the AESO to make classifications based on "shades of grey." In line with the approach articulated in Decision 2005-096, when determining the cost allocation of a connecting market participant, the initial presumption is that costs should be classified as participant-related, unless clearly demonstrated otherwise.[13] (emphasis added)

41. Direction 14 requires the AESO to report on the status of discussions regarding the AESO's criteria for the initiation of system projects, including any criteria the AESO would propose for "determining 'grey area' system project".

42. Based on the stakeholder engagement conducted by the AESO and described in this application, the AESO considers that the System Criteria it has developed will be relied upon by the AESO to resolve and clarify any "grey area" concerns arising with the AESO's determination of whether (i) to initiate a system project (or instead, as may be appropriate, to require a SASR from a market participant that is seeking new or modified system access service), or (ii) to classify the costs of a connection project as participant- or system-related under the ISO tariff. Notably, and with regards to connection project cost classification, the AESO considers that in circumstances where the System Criteria apply, system-related cost classification would be justified under either subsections 4.2(4)[14] or 4.10(3)[15] of the currently approved ISO tariff.

3. Conclusion

43. Based on the foregoing, the AESO submits the AESO has complied with Direction 13 and Direction 14 from the Decision, and requests that the Commission confirm that these directions have been satisfactorily responded to.

44. All of which is respectfully submitted this 30th day of November, 2021.

Alberta Electric System Operator

Per: Nicole LeBlanc
Director, Markets & Tariff

[13] Decision 22367-D01-2017, para. 83.
[14] Subsection 4.2(4) of the current ISO tariff states that: "System-related costs are the costs of the connection project that have not been classified as participant-related in accordance with subsection 4.2(2) and (3) above, and include incremental transmission facility costs in excess of the ISO's preferred connection alternative in accordance with subsection 3.4 of the ISO tariff, System Access Service Requests, to serve the market participant where, as determined by the ISO, economics or transmission system planning support the development of such transmission facilities" (emphasis removed).
[15] Subsection 4.10(3) of the current ISO tariff states that: "The ISO may exercise discretion in the application of the construction contribution provisions in the ISO tariff, including the determination of costs to be system-related in certain circumstances that might, under strict application of the construction contribution provisions, have been classified as participant-related" (emphasis removed).