

Alberta Electric System Operator

Application for Approval of Revised Adjusted Metering Practice (AMP) Implementation Plan and Related Amendments to the ISO Tariff and Section 503.17 of the ISO Rules, *Revenue Metering System* Pursuant to AUC Decision 27047- D01-2022

Date: August 31, 2023

Classification: Public

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- F Stakeholder Engagement Summary and Materials
- G Select Procedural History

1. Introduction and Requested Relief

- 1 The AESO applies to the Alberta Utilities Commission (AUC or Commission) for approval of a revised implementation plan (Revised Implementation Plan) for the AESO's adjusted metering practice (AMP) at substations that connect to an electric distribution system (DFO substations).
- 2 The AMP continues to be required to accurately measure transmission system usage and to address the artificial erosion of ISO tariff billing determinants due to the current measurement practice that nets flows entering and leaving a substation.
- 3 Since the issuance of AUC Decision 27047-D01-2022¹ in which the AUC denied approval of the AESO's original implementation plan for the AMP, the AESO has engaged with stakeholders regarding the continued need and potential implementation options for the AMP.
- 4 As a result of this engagement and in response to the direction issued in AUC Decision 27047-D01-2022, the AESO is filing the Revised Implementation Plan, together with related ISO Tariff and ISO rule amendments. Based on the feedback that the AESO has received, the Revised Implementation Plan represents the option that is most supported by stakeholders.
- 5 The AESO seeks the following relief, pursuant to sections 20, 30 and 119(4) of the Electric Utilities Act:
- (a) approval of the Revised Implementation Plan described in section 4 of this application and included as Appendix C – Revised Implementation Plan;
 - (b) approval of:
 - (i) revisions to subsections 3.6(2), 3.6(3) and 5.2(2), and new subsections 3.6(4) and (5) of the terms and conditions of the ISO Tariff as set out in Appendix D – ISO Tariff Revisions, to facilitate implementation of the AMP in accordance with the Revised Implementation Plan (AMP Tariff Revisions);
 - (ii) revisions to Section 503.17 of the ISO rules, *Revenue Metering System* as set out in Appendix E – ISO Rules Revisions, to ensure that:
 - 1. the revenue metering system at DFO substations allows for financial settlement as required by the ISO Tariff; and
 - 2. all new DFO substations, and existing DFO substations that undergo the installation or replacement of switchgear lineups, install the infrastructure required for feeder level metering(collectively, the "AMP Rule Revisions");
 - (iii) revisions to subsections 8(1) of Rate DTS, 3(1) of Rates PSC and STS, 10.3(2) of the terms and conditions of the ISO Tariff and new subsections 10.4(1) and (2) of the terms

¹ AUC Decision 27047-D01-2022, *Alberta Electric System Operator, Application for Approval of the Adjusted Metering Practice Implementation Plan and Associated Section 502.10 of the ISO Rules* (May 31, 2022).

and conditions of the ISO Tariff as set out in Appendix D – ISO Tariff Revisions, to permit totaled billing of multiple points of delivery or points of supply at the same substation (Totalized Billing Revisions); and

- (c) confirmation that the AESO has satisfactorily responded to the direction issued at paragraph 23 of AUC Decision 27047-D01-2022.

6 For the reasons described in this application, the AESO requests that the Revised Implementation Plan, the AMP Tariff Revisions and the AMP Rule Revisions be approved effective January 1, 2025, and that such approval be issued by the AUC no later than June 1, 2024 to allow the time needed for the AESO to complete administrative changes to existing system access service (SAS) agreements and measurement point definition records (MPDRs) by January 1, 2025.

7 The AESO requests that the Totalized Billing Revisions be approved no later than December 1, 2023 with immediate effect, to ensure that the AESO can facilitate more efficient billing to all market participants that are requesting or currently receiving SAS.

2. Organization of Application

8 This Application is organized into sections as follows:

- 1 **Introduction and Requested Relief**
- 2 **Organization of Application**
- 3 **The Continued Need for the AMP**
- 4 **Revised Implementation Plan and Recommended Approach to AMP Implementation**
- 5 **Implementation Alternatives Considered with Stakeholders**
- 6 **Compliance with Costing Direction from AUC Decision 27047-D01-2022**
- 7 **ISO Tariff Revisions Required to Implement the AMP**
- 8 **ISO Rule Revisions Required to Implement the AMP**
- 9 **Totalized Billing Revisions**
- 10 **Conclusions and Requested Relief**

Appendices:

Appendix A – AMP Alternatives Comparison – Describes the alternatives for AMP implementation that were explored with stakeholders following issuance of AUC Decision 27047-D01-2022, including associated objectives, costs and benefits.

Appendix B – Cost Benefit Analysis – Responds to the costing direction issued by the AUC in Decision 27047-D01-2022.

Appendix C – Revised Implementation Plan – Describes the revised plan for AMP implementation that the AESO has developed in response to AUC Decision 27047-D01-2022 and input from stakeholders.

Appendix D – ISO Tariff Revisions (clean and blackline) – Set outs revisions to the ISO tariff that are required to implement the AMP in accordance with the Revised Implementation Plan and provisions that allow for totaled billing within the same substation.

Appendix E – ISO Rule Revisions (clean and blackline) – Set outs revisions to Section 503.17 of the ISO rules, *Revenue Metering System*, that are required to implement the AMP in accordance with the Revised Implementation Plan.

Appendix F – Stakeholder Engagement Summary and Materials – Describes the stakeholder engagement process that the AESO undertook to develop the Revised Implementation Plan and totalized billing provisions, and provides copies of stakeholders materials.

Appendix G – Select Procedural History - Briefly summarizes the procedural history of the AMP.

3. The Continued Need for AMP

9 AMP implementation is required to eliminate the artificial billing determinant erosion² (or underrepresentation of flows) at DFO substations due to the netting that occurs as part of the current measurement practice. DFO substations form part of the “transmission system” as defined under the *Electric Utilities Act*.³

10 Under the AESO’s current measurement practice, electricity entering and leaving a DFO substation on different feeders (i.e. entering and leaving the transmission system) can be aggregated. Flows from the DFO substation into the transmission system are due to DCG connected downstream. Aggregating the metered energy flowing *from* the transmission system to the distribution system with the metered energy flowing *to* the transmission system from the distribution system, nets the flows against each other.

11 This current practice results in under-measured energy consumption at the DFO substation level and inadvertently facilitates uncharged (‘free’) use of the transmission system. This in turn creates a misallocation of SAS charges for both Rate DTS and Rate STS market participants.

12 The AMP addresses these issues by separately measuring and charging for energy flows at each DFO substation feeder. The AMP ensures that the transmission system costs associated with electricity flowing *from* the transmission system at a DFO substation are recovered under Rate DTS, and that those for energy flowing *to* the transmission system at a DFO substation are charged under Rate STS.

13 The accurate measurement of energy flows at DFO substations is fundamental to ensuring that transmission costs are fairly allocated and that market participants face incentives based on accurate billing determinants. Being able to accurately quantify market participants’ use of the transmission system is foundational to a rate design that supports efficient charges and encourages efficient use of the transmission system. The AESO must be able to accurately measure transmission system use in order to satisfy its statutory obligation to apply just and reasonable rates to recover costs reasonably attributable to each SAS class (STS and DTS).⁴

² The AMP is not intended to address billing determinant erosion whatever the cause. It is only intended to address the **artificial** billing determinant erosion that arises due to the calculations under the current measurement practice that nets the flows to and from the transmission system. Any erosion of flows within a distribution system itself is outside the scope of the AMP.

³ The AMP is required to align with the definitions of “transmission system” and “transmission facilities” in the *Electric Utilities Act*. Decision 22942-D02-2019, PDF 158-162.

⁴ Section 30(2) *Electric Utilities Act*.

14 Without timely AMP implementation, cost misallocation between all market participants, under both Rate DTS and Rate STS, will continue to be exacerbated by the evolving use of the transmission system, including increased two-way flows and increased flows onto the transmission system ('reverse flows') due to DCG proliferation (see Figure 1 below).

Figure 1:



Count of DFO Substations with Reverse Flows is under the current measurement practice (which is lower than it would be under the AMP). Installed DCG Capacity includes all interval metered DCG and large micro-generation

15 The changing use of the transmission system under a measurement practice that misrepresents two-way flows (by netting them) will increasingly impede the AESO’s ability to fulfill its statutory obligation to administer just and reasonable rates.

16 In AUC Decision 27047-D01-2022, the AUC suggested that the AMP may no longer be required following the phase-out of DCG credits.⁵

⁵ AUC Decision 27047-D01-2022 at paragraphs 16 and 22.

17 The AESO wishes to clarify that DCG credits themselves do *not* cause the artificial billing determinant erosion that is occurring. The misallocation of SAS charges is due to the current measurement practice, and will continue to grow as more DCGs connect, irrespective of the discontinuance of DCG credits.

18 The elimination of the DCG credit mechanism results in DFO load customers no longer paying credits to the DCG.⁶ However, this does not resolve the artificial billing determinant erosion that will be addressed by the AMP because the artificial erosion is due to *how* the SAS billing determinants are measured and billed to DFOs.⁷ Put differently, eliminating the DCG credits will result in DFOs no longer paying credits to DCG for the calculated difference in Rate DTS costs but it will not impact the AESO’s Rate DTS billing to DFOs.

19 Accordingly, the AESO requests that the AUC grant the relief and approvals requested in section 1 for implementation of the AMP.

4. Revised Implementation Plan and Recommended Approach to AMP Implementation

20 If there are reverse flows at a DFO substation such that there are both flows *to* the transmission system and flows *from* the transmission system, then AMP implementation requires revenue meters to be installed at each DFO substation feeder.

21 Some DFO substations have feeder metering today. Figure 2 below describes the DFO substations with and without feeder level metering, based on the AESO’s preliminary assessment of the metering at the approximately 450 DFO substations that provide SAS to an electric distribution system.

Figure 2:

	# of DFO Subs*
DFO substations without feeder level metering	70
DFO substations with feeder level metering	380
Total DFO substations	450

**DFOs will confirm the number of DFO substations as part of the Revised Implementation Plan*

22 As further detailed in the AESO’s Revised Implementation Plan , the actions required to bring existing SAS into compliance with the AMP may be physical and/or administrative in nature:

- (a) *Physical* – installing appropriate DFO substation infrastructure such that flows are measured at the feeder level

⁶ Appendix F – Stakeholder Engagement Summary and Materials, DCG Credits and the AMP at PDF 34.

⁷ Appendix F – Stakeholder Engagement Summary and Materials, DCG Credits and the AMP at PDF 35.

(b) *Administrative* – updating existing SAS agreements, MPDRs and data systems such that billing determinants are calculated without netting

23 AMP compliance does not always require the installation of feeder level meters where an existing DFO substation already has transformer level meters. If there are only one-way flows (i.e. no reverse flows onto the transmission system), then netting is not possible and accurate contracting, measurement, and billing of SAS can be achieved by meters at either the transformer or feeder level.

24 Figure 3 below provides the AESO’s estimate of the number of DFO substations that likely have reverse flows as of July 2023, based on available information.

Figure 3:

Likely does not reverse	58-65	No actions
Likely reverses	5-12	Physical actions
DFO substation without feeder level metering	70	
Likely does not reverse	315-330	No actions
Likely reverses	50-65	Administrative actions
DFO substations with feeder level metering	380	

**DFOs will confirm the number of DFO substations as part of the Revised Implementation Plan*

25 Following AUC Decision 27047-D01-2022, the AESO undertook a significant degree of stakeholder engagement to determine what form of implementation plan would be most supported by stakeholders while preserving the primary objectives of the AMP.⁸ For a more detailed description of the engagement process the AESO undertook, please refer to Appendix F – Stakeholder Engagement Summary and Materials.

26 Much of the stakeholder input provided to the AESO indicated support for AMP implementation where there would be little to no associated capital costs, i.e. only administrative actions are undertaken to implement the AMP. This is because of the significant capital costs associated with the physical changes that would be required at a small number of the DFO substations without feeder level metering, and because the majority of the benefit of implementing the AMP would be achieved by implementing it at DFO substations that only require administrative actions.

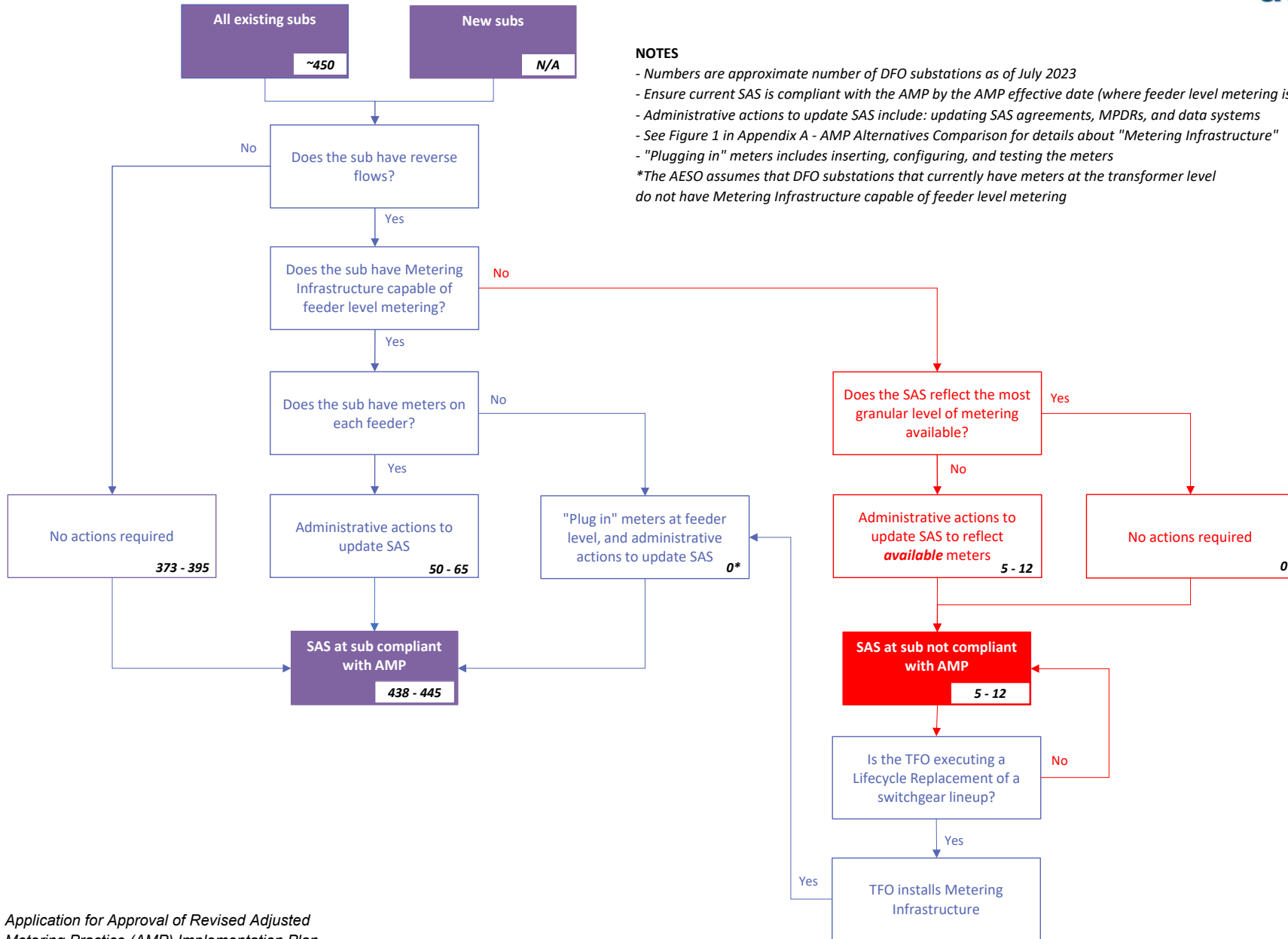
27 Stakeholder feedback indicates that many stakeholders will be opposed to AMP implementation altogether if it were to require immediate compliance by those DFOs requiring physical changes. The AESO’s analysis shows that meaningful benefits could still be achieved even if AMP implementation were limited to DFO substations that only require administrative actions, as quantified in Figure 4 below and Appendix B – Cost Benefit Analysis for additional details.

⁸ As set out in Appendix F - Stakeholder Engagement Summary and Materials.

- 28 As such, and on the basis of detailed consultation with and support from stakeholders, the AESO is proposing the Revised Implementation Plan whereby the necessary administrative actions would be taken to ensure that existing SAS at DFO substations with reverse flows would become AMP compliant, with limited exemptions at those existing DFO substations with reverse flows where physical changes would be required to become AMP compliant.
- 29 The exemptions would only apply until future substation lifecycle alterations to replace existing equipment are required. More specifically, DFO substations that have reverse flows but without the appropriate feeder level metering would be exempt from immediate compliance with the AMP until the meters are installed at the feeder level as part of future lifecycle alterations to replace the aging switchgear.
- 30 To implement this exemption, the AMP Tariff Revisions and AMP Rule Revisions sought in this application require that either the complete feeder level metering system, or the infrastructure required to facilitate feeder level metering, be installed at all (i) new DFO substations; and (ii) existing DFO substations when switchgear replacement is undertaken in the future. It is efficient and cost-effective to install the infrastructure required to facilitate feeder level metering (or the complete feeder level metering system) at the same time that related work to replace or install the switchgear is taking place.⁹
- 31 The above-described approach to AMP implementation that the AESO is recommending and that would be implemented through the Revised Implementation Plan is illustrated in Figure 5 below and described in greater detail as Alternative 2: Substation Lifecycle Trigger in Appendix A – AMP Alternatives Comparison.

⁹ Appendix A – AMP Alternatives Comparison details the scope of work involved with installing feeder level meters at a substation. Appendix B – Cost Benefit Analysis details the estimated costs.

Figure 5:



NOTES

- Numbers are approximate number of DFO substations as of July 2023
- Ensure current SAS is compliant with the AMP by the AMP effective date (where feeder level metering is available)
- Administrative actions to update SAS include: updating SAS agreements, MPDRs, and data systems
- See Figure 1 in Appendix A - AMP Alternatives Comparison for details about "Metering Infrastructure"
- "Plugging in" meters includes inserting, configuring, and testing the meters
- *The AESO assumes that DFO substations that currently have meters at the transformer level do not have Metering Infrastructure capable of feeder level metering

- 32 The AESO acknowledges that the Revised Implementation Plan permits differential treatment of SAS at some DFO substations over other DFO substations since SAS contracting, measurement, and billing at DFO substations without feeder level metering will continue to underrepresent transmission flows until the loss of the exemption is triggered.
- 33 However, as further detailed in Figure 3 and the AMP Costs-Benefit Analysis included in Appendix B – Cost Benefit Analysis, the AESO recommends adoption of Alternative 2: Substation Lifecycle Trigger through the Revised Implementation Plan because:
- The proportion of DFO substations that would be exempt is minimal (the AESO's analysis demonstrates that based on the amount of DCG currently connected to a DFO substation, conservatively, likely only 5 – 12 DFO substations of the approximately 450 total DFO substations would be exempted from the AMP);¹⁰ and
 - The proportion of billing determinant erosion occurring at exempt DFO substations is minimal (the AESO's analysis shows that 93% of the 2021 artificial billing determinant erosion is occurring at DFO substations where feeder level metering is in place, such that only implementing the AMP at DFO substations where administrative actions are required would achieve a majority of the benefit at the lowest overall cost).¹¹

5. Implementation Alternatives Considered with Stakeholders

- 34 The AESO determined that the Revised Implementation Plan is the best recommended approach after discussing with stakeholders the implementation plan originally proposed by the AESO in Proceeding 27047 (Original Proposed Implementation Plan), as well as two primary alternatives to AMP implementation with stakeholders. The AESO's recommended Revised Implementation Plan is the result of engaging with stakeholders to better understand if there were approaches to AMP implementation that would address cost concerns. These discussions, further described in Appendix F – Stakeholder Engagement Summary and Materials, included consultation on two primary alternatives to AMP implementation.
- 35 The two alternatives to the Original Proposed Implementation Plan were based on what would trigger the installation of feeder level metering at DFO substations that currently do not have feeder level metering and ultimately, the loss of an exemption from AMP compliance. Namely, as part of a connection project in response to a request for new or amended SAS (Alternative 1: SAS Trigger), or as part of a future lifecycle replacement of the switchgear at the DFO substation (Alternative 2: Substation Lifecycle Trigger), the latter being the AESO's recommended approach. Further details regarding each of these alternatives are provided in Appendix A – AMP Alternatives Comparison.
- 36 Figure 4 below shows that the impact to billing determinants, rates and the billing allocation is nearly identical with or without the limited exemptions. See Appendix B – Cost Benefit Analysis for details.

¹⁰ See footnote 8 in Appendix A – AMP Alternatives Comparison for an explanation of how the AESO determined if a DFO substation was “likely” to reverse.

¹¹ See figure 5 in Appendix B – Cost Benefit Analysis.

Figure 4:

	Original Proposed Implementation Plan with No Exemption	Alternative 1: SAS Trigger	Alternative 2: Substation Lifecycle Trigger (Recommended)
Total Cost of AMP Implementation			
<i>Based on Likely Reversals</i>	\$5.3M – \$11.3M <i>For near- and long-term</i>	\$2.3M – \$3.0M <i>For near- and long-term</i>	\$300,000 – \$720,000 <i>between 2030 – 2040</i>
<i>Theoretical Maximum</i>	\$52.5M	\$52.5M	\$4.2M
Benefits Achieved from AMP Implementation			
<i>Billing Determinants</i>	Up to 2.9% of erosion addressed	Up to 2.8% of erosion addressed	Up to 2.8% of erosion addressed
<i>DTS Rates</i>	Up to 2.8% decrease in rates	Up to 2.7% decrease in rates	Up to 2.7% decrease in rates
<i>DTS Allocation</i>	Up to \$16.3M reallocated	Up to \$17.1M reallocated	Up to \$17.1M reallocated
<i>STS Allocation</i>	Up to \$4.85M reallocated	Up to \$4.56M reallocated	Up to \$4.56M reallocated

37 The AESO also recommends Alternative 2: Substation Lifecycle Trigger because it allows AMP to be implemented in the most cost-efficient way and achieves significant benefits for ratepayers as:

- (a) only administrative actions will be taken to ensure that current SAS agreements are updated to comply with the AMP;
- (b) where physical changes are required, current SAS contracting, measurement, and billing will reflect the available metering until switchgear replacement is undertaken;
- (c) all new DFO substations (and existing DFO substations that are rebuilt or have switchgear replaced) will either have a complete feeder level metering system or the infrastructure capable of feeder level metering installed.

38 Under the Revised Implementation Plan, no capital costs are required to ensure that current SAS can be brought into compliance with the AMP and can be completed with minimal administrative work. This achieves significant benefit of the AMP at the lowest overall cost for all ratepayers.¹²

6. Compliance with Costing Direction from AUC Decision 27047-D01-2022

39 In Decision 27047-D01-2022,¹³ the AUC directed the AESO, should it wish to file a further application to implement the AMP, to include the following information:

- (a) AACE Class 3 (-20% to +30%) estimates and forecast completion date for all scopes of work proposed in the implementation plan. Alternatively, the AESO could include in its implementation plan mechanisms for cost review and oversight of future phases of AMP implementation;
- (b) AACE Class 5 (-50% to 100%) estimates for the total theoretical maximum cost of implementation across all phases; and
- (c) quantification of the benefits of AMP implementation, including a cost-benefit analysis.

40 To comply with the AUC's direction to obtain AACE Class 3 estimates,¹⁴ the AESO discussed the cost, timing, and amount of work required to develop AACE Class 3 estimates with transmission facility owners (TFOs), being the legal owners of the revenue meters, for the transmission facility projects at substations that would most likely require physical changes. TFOs advised that, for each substation, they would require:

- Approximately 2-6 months to prepare an AACE Class 3 estimate; and
- Up to \$75, 000 to complete the work required to develop each AACE Class 3 estimate (for site visits, site assessments, feasibility assessments, project planning, preliminary engineering, execution plan development, etc.)

41 The AESO has accordingly decided not to proceed with obtaining AACE Class 3 estimates. In the AESO's view, it would be premature to initiate these transmission facility projects and advance them sufficiently to develop AACE Class 3 estimates and forecast a completion date for the projects. It would also be imprudent to cause TFOs to incur the costs required for AACE Class 3 estimates if the AMP could be implemented without immediately requiring existing DFO substations to comply with the AMP as would be the case, for example, with adoption of the Revised Implementation Plan and Alternative 2: Substation Lifecycle Trigger.

42 Consistent with Decision 27047-D01-2022, the AESO is consequently proposing that the capital costs associated with the Revised Implementation Plan be addressed through the well established and existing cost oversight mechanisms described in section 2.3 Capital Cost Review and Oversight Mechanisms of Appendix B – Cost Benefit Analysis.

¹² Trade-offs associated with the AESO's recommended Revised Implementation Plan with limited exemption (Alternative 2: Substation Lifecycle Trigger) are addressed Appendix A – AMP Alternatives Comparison. Costs and benefits are described in greater detail in Appendix B – Cost Benefit Analysis. The Revised Implementation Plan also has the benefit of being rate agnostic.

¹³ Decision 27047-D01-2022, at para 23.

¹⁴ AESO Information Document #2015-002R states that AACE Class 3 estimates are typically used for budget authorization or control (e.g., Service Proposal Estimates) when approximately 10-40 per cent of the project deliverables are complete.

43 In response to Decision 27047-D01-2022, the total theoretical maximum cost of implementation under the Original Proposed Implementation Plan and each alternative, are provided in Figure 4 above, and further detailed in Appendix B – Cost Benefit Analysis.

44 A detailed quantification of the benefits and costs of AMP implementation, including a cost-benefit analysis and associated methodologies, is also included at Appendix B – Cost Benefit Analysis.

7. ISO Tariff Revisions Required to Implement the AMP

45 In Proceeding 26215 and AUC Decision 26215-D01-2021, the AESO proposed and obtained approval of ISO tariff revisions – specifically, revisions to subsection 3.2(2), 3.6(2) and 3.6(3) – to ensure that SAS agreements are executed in alignment with the AMP. In that decision, the AESO also obtained approval of proposed new subsection 3.6(4), to reflect that billing on a net basis is inapplicable for industrial complexes that apply for new or modified SAS and that have not obtained an industrial system designation (ISD) under Section 4 of the *Hydro and Electric Energy Act*.¹⁵ In AUC Decision 26215-D02-2021, the AUC confirmed that these approved ISO tariff provisions are to come into effect on a date to be specified by the Commission in its approval of an AMP implementation plan.¹⁶

46 The AESO has revised the ISO tariff revisions approved in Proceeding 26215 (referred to in this application as the AMP Tariff Revisions) to align with the Revised Implementation Plan. The AMP Tariff Revisions are set out in Appendix D – ISO Tariff Revisions and are required to implement the Revised Implementation Plan and, for industrial complexes that apply for new or modified SAS, to ensure that billing on a net basis is only available if an ISD has been granted.

8. ISO Rule Revisions Required to Implement the AMP

47 To implement the AMP in alignment with the Revised Implementation Plan, the AESO is also proposing the AMP Rule Revisions to ensure that the revenue metering system at DFO substations allows for financial settlement as required by the ISO Tariff and, on a go-forward basis, for new DFO substations and existing DFO substations that undergo the installation or replacement of switchgear lineups, to install either a complete feeder level metering system or the infrastructure capable of feeder level metering.

48 Allowing the TFO to install the minimum infrastructure capable of feeder level metering is a departure from the AESO's previously proposed amendments to Section 502.10 of the ISO rules, *Revenue Metering System Technical and Operating Requirements* in Proceeding 27047,¹⁷ which proposed mandatory installation of the complete feeder level metering system. Based on TFO feedback, the AESO is relaxing the requirement for complete feeder level metering system because TFOs advised that, in some cases, it may be more cost-effective and operationally efficient to allow them to operate and maintain fewer meters until there are reverse flows to measure.

49 In accordance with section 20.21(2)(a) of the *Electric Utilities Act*, the AESO considers the proposed AMP Rule Revisions to not be technically deficient, and to be in the public interest and supportive of the fair,

¹⁵ Decision 26215-D01-2021, paras. 26 and 37.

¹⁶ Decision 26215-D02-2021, para. 7.

¹⁷ Since Proceeding 27047, Section 502.10 of the ISO rules, *Revenue Metering System Technical and Operating Requirements* has been renamed and renumbered to Section 503.17 of the ISO rules, *Revenue Metering System*.

efficient and openly competitive operation of the market because they will ensure that the AESO can obtain accurate and consistent measurement data from DFO substations, and because it is prudent and cost efficient to only require the installation of feeder metering at DFO Substations when reverse flows on feeders are expected or when it would otherwise be efficient and cost-effective to install the meters when switchgear is being installed or replaced. The AMP Rule Revisions are not technically deficient.

50 The proposed AMP Rule Revisions are as set out in Appendix E – ISO Rule Revisions and addressed in greater detail in Appendix A – AMP Alternatives Comparison.

9. Totalized Billing Revisions

51 The current totalized billing¹⁸ provisions in the ISO tariff – namely, subsection 8(1) of Rate DTS and subsections 3(1) of Rates STS and PSC, and subsection 10.3 of the terms and conditions - were approved in Decision 22942-D02-2019 and specify that totalized billing is applicable to points of delivery (or points of supply) at *separate* substations.

52 Prior to that decision, the totalized billing provisions were silent on whether the points of delivery (or points of supply) being totalized exist within the same or at separate substations. The changes to totalized billing in Proceeding 22942 were meant to be administrative in nature, but the distinction of “separate substations” created a lack of clarity regarding if and how totalized billing within the same substation is permitted.

53 Since multiple points of delivery (or points of supply) can also exist within the same substation, the ability to totalize under the same DTS (or STS) should also apply. Without the ability to totalize at the same substation, the AESO would be required to separately contract and bill for DTS (or STS) at each point of delivery (or supply) within the substation, which is administratively inefficient. Additionally, not allowing the totalization of multiple points of supply in a substation would create a barrier that limits the ability of a market participant to aggregate some or all of its generating units as contemplated by subsection 5 of Section 501.10 of the ISO rules, *Transmission Loss Factors*.

54 Consequently, the AESO is proposing the Totalized Billing Revisions to permit the totalization of feeder flows, under the same service (e.g., Rate DTS or Rate STS) at the same substation. This would not result in any offsetting of flows, and would avoid the need for separate SAS agreements for each feeder and additional measurement points.

55 The Totalized Billing Provisions will facilitate AMP implementation, but are also independently required to facilitate administrative totalization for all market participants who take service under the ISO tariff.

56 The proposed Totalized Billing Provisions are as set out in Appendix D – ISO Tariff Revisions and are a departure from the provisions previously proposed in Proceeding 27047 because stakeholders raised the concern that speaking to totalized billing for the points of delivery for Rate DTS and for the points of supply for Rate STS in the same provision (as it was previously proposed) was unclear and implied that points of delivery could be totalized with points of supply. In the proposed Totalized Billing Provisions for this application, the AESO is proposing two separate provisions to address stakeholder concerns.

¹⁸ Totalized billing is an ISO tariff settlement mechanism for cases where a single market participant receives SAS through multiple points of connection. This mechanism allows the AESO to combine a market participant’s billing *for the same* SAS at multiple points of connection (but limited to the circumstances set out in Section 10 of the ISO tariff) so that they receive fewer bills for that service.

10. Conclusions and Requested Relief

- 57 The AESO submits that the Revised Implementation Plan and the AMP Tariff Revisions are just and reasonable, and further submits that AMP Rule Revisions are not technically deficient, support the fair, efficient and openly competitive operation of the electricity market, and are in the public interest.
- 58 The AESO requests that the relief requested in Section 1 above be granted such that the Revised Implementation Plan, the AMP Tariff Provisions and AMP Rule Provisions be approved effective as at January 1, 2025, with approval to be issued no later than June 1, 2024, and the Totalized Billing Provisions be approved no later than December 1, 2023 with immediate effect.
- 59 All of which is respectfully submitted this 31st day of August, 2023.

Alberta Electric System Operator

“Electronically submitted”

Per: Steven Everett
Director, Tariff