1) Proposed Adjusted Metering Practice Implementation Plan; and

2) Proposed Amendments to Section 502.10 of the ISO rules, *Revenue Metering System Technical and Operating Requirements* ("Section 502.10")



Date of Request for Comment: October 14, 2021

Period of Comment: October 14, 2021 through November 4, 2021

	Development of a Proposed ISO Rule	Stakeholder Comments and/or Alternate Proposal	AESO Responses
1.	1. Do you agree that the issue identified in the letter of notice requires the development of proposed amended Section 502.10? If not, why not?	AltaLink Management Ltd. (AML) 1. AltaLink agrees. ATCO Ltd. 2. Yes, no issue's. ENMAX Power Corporation 3. Agree. EPCOR Distribution and Transmission Inc. 4. EPCOR does not have any specific comments on this item, but does not want to be construed as providing favorable comments.	 The AESO acknowledges AltaLink's comment. The AESO acknowledges ATCO's comment. The AESO acknowledges ENMAX's comment. The AESO acknowledges EPCOR's comment.
		Kalina Distributed Power	
		5. <i>No</i>	5. The AESO acknowledges Kalina's comment.
		Signalta Resources Limited	
		6. No. The implementation of the AESO's AMP and corresponding Rule 502.10 change is likely redundant due to the phase out of DG Credits as determined recently by AUC Proceeding 26090 and the subsequent denial to allow that decision to be Reviewed and Varied (AUC 26660).	 The AESO disagrees. The Commission approved the adjusted metering practice in Decision 22942-D02-2019 and, as described in that decision, the adjusted metering practice is required for reasons separate and apart from the issue of DCG Credits.

1) Proposed Adjusted Metering Practice Implementation Plan; and

2) Proposed Amendments to Section 502.10 of the ISO rules, Revenue Metering System Technical and Operating Requirements ("Section 502.10")



2. Do you agree with the potential purpose of development of proposed amended Section 502.10? If not, why not?

AltaLink Management Ltd. (AML)

7. AltaLink agrees.

ATCO Ltd.

8. Yes, we agree.

ENMAX Power Corporation

9. Agree.

EPCOR Distribution and Transmission Inc.

 EPCOR does not have any specific comments on this item, but does not want to be construed as providing favorable comments.

Kalina Distributed Power

11. No

Lionstooth Energy Inc.

 Lionstooth agrees that the Commission directed the AESO to develop an AMP Implementation Plan, with the fundamental intent to align metering of substation feeders with the *Electric Utilities Act (EUA)*.

Lionstooth does <u>not</u> agree that the AMP issue stems, in any way, from the presence of DCG. If the utilities are not compliant with the *EUA*, then it is on the utilities to ensure they are compliant, whether a DCG exists or not. The fact that 84% (~380) of existing substations already have feeder metering installed proves that the onus is on the utility to install meters compliant with the *EUA*.

To be even more clear, if all feeders

- 7. The AESO acknowledges AltaLink's comment.
- 8. The AESO acknowledges ATCO's comment.
- 9. The AESO acknowledges ENMAX's comment.
- 10. The AESO acknowledges EPCOR's comment.
- 11. The AESO acknowledges Kalina's comment.
- 12. The adjusted metering practice is triggered by reverse flows from a distribution system to the transmission system, which occur when the amount of DCG on a feeder is greater than load on the feeder. As stated on slide 6 of the Background Information document posted by the AESO on October 14th, revenue metering on individual feeders is required when reverse flows are expected. Substations without reverse flows, including those that do not have revenue meters on each individual feeder, are already accurately billed and do not require any actions to comply with the adjusted metering practice.

1) Proposed Adjusted Metering Practice Implementation Plan; and



Development of a Proposed ISO Rule	Stakeholder Comments and/or Alternate Proposal	AESO Responses
	need to be gross metered to be compliant with the EUA, then this is a cost that is caused when the feeder is first constructed. It is not caused by a DCG connecting to that feeder. Even if the meter were to be installed at a similar time to the connection of a DCG, the need for the meter is not caused by DCG, it is caused by the EUA.	
	Signalta Resources Limited	
	13. No, as above	13. Please see AESO response #6.

1) Proposed Adjusted Metering Practice Implementation Plan; and

2) Proposed Amendments to Section 502.10 of the ISO rules, Revenue Metering System Technical and Operating Requirements ("Section 502.10")



3.	Do you agree with the
	proposed consultation and
	timelines? If not, why not?

AltaLink Management Ltd. (AML)

14. AltaLink agrees.

ATCO Ltd.

15. Yes, we agree in principle that the AUC approves.

ENMAX Power Corporation

16. The proposal to submit an application to the AUC to approve the proposed amended Section 502.10 and AMP implementation plan appear reasonable as long as stakeholder comments have been addressed prior to this. As noted in our response to Question 10, EPC is waiting for follow-up on a number of questions and concerns which were submitted to the AESO on September 29.

EPCOR Distribution and Transmission Inc.

17. EPCOR does not have any specific comments on this item, but does not want to be construed as providing favorable comments.

Kalina Distributed Power

18. No. The AESO proposes April 01 2022 as the first phase of the plan, yet the AESO has not held any virtual sessions nor provided adequate analysis for stakeholders to provide comment.

- 14. The AESO acknowledges AltaLink's comment.
- 15. The AESO acknowledges ATCO's comment.
- 16. The AESO provided direct responses to ENMAX's September 29 questions on November 10th via email communication. The AESO notes that it already included revisions to the AMP Implementation Plan and other consultation materials, posted on October 14th, related to ENMAX's comments and questions from September 29th.
- 17. The AESO acknowledges EPCOR's comment.
- 18. The AESO considers that the issues raised by Kalina regarding the development of the proposed amended Section 502.10 concern the need for the adjusted metering practice, which has already been approved by the Commission in Decision 22942-D02-2019. As a result, stakeholder engagement focused on the need and rationale for the adjusted metering practice is no longer necessary or appropriate at this juncture. Additionally, as parties directly involved with implementation of the

1) Proposed Adjusted Metering Practice Implementation Plan; and



Development of a Proposed ISO Rule	Stakeholder Comments and/or Alternate Proposal	AESO Responses
		adjusted metering practice (DFOs and TFOs) have not raised concerns with the clarity of the AMP Implementation Plan, and as Kalina has not raised any specific concerns regarding the AMP Implementation Plan, the AESO does not consider an additional session to be needed.
	19. This consultation absolutely requires a virtual session, to further review the AESO's Implementation Plan and proposed changes, as neither is clear. During that session the AESO should also respond to the written feedback provided by stakeholders. Additional information and quantitative analysis is required to understand the extent, timing, and cost implications of the AMP, prior to proceeding with implementing the AMP. Signalta Resources Limited 20. No, as above #1	19. Please see AESO response #18. The AESO has provided details regarding the extent, timing and cost implications associated with the adjusted metering practice in the AMP Implementation Plan. The parties directly involved with the implementation (DFOs and TFOs) have not raised any concerns regarding the need for additional information or quantitative analysis and the AESO does not agree that additional information or quantitative analysis is required prior to proceeding with implementing the adjusted metering practice. 20. Please see AESO response #6.

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4. Do you agree that the proposed amendments to Section 502.10 are not technically deficient? If not, why?

AltaLink Management Ltd. (AML)

21. AltaLink agrees.

ATCO Ltd.

22. Yes, we agree.

Additional suggestions to section 4:

- 4(a) The Transmission Facility (Replace Substation) is connected to an electric distribution system
- 4(c) the legal owner installs or replaces a complete switchgear lineup connected to the bus except in an emergency situation.

- 21. The AESO acknowledges AltaLink's comment.
- 22. The AESO does not agree with the recommendation to remove "substation" and replace with "transmission facility" in subsection 4(a), as "transmission facility" has a much broader meaning than "substation". A transmission facility could include equipment that may not be directly connected to a distribution feeder where revenue metering is to be installed, while in the case of a distribution feeder, it is always connected to a substation.

The AESO has reviewed the proposed wording to include "except in an emergency situation" in subsection 4(c) and agrees that clarity is needed in an information document to explain what should happen when there is a major failure of a substation.

ENMAX Power Corporation

23. Agree.

EPCOR Distribution and Transmission Inc.

24. EPCOR does not have any specific comments on this item, but does not want to be construed as providing favorable comments.

Kalina Distributed Power

25. No. Please see answer to question 3 above.

- 23. The AESO acknowledges ENMAX's comment.
- 24. The AESO acknowledges EPCOR's comment.
- 25. Please see AESO response #18.

1) Proposed Adjusted Metering Practice Implementation Plan; and



Development of a Proposed ISO Rule	Stakeholder Comments and/or Alternate Proposal	AESO Responses
	Signalta Resources Limited 26. Without the AMP, no changes are required	26. The Commission approved the adjusted metering practice in Decision 22942-D02-2019, therefore matters related to whether the adjusted metering practice should or should not be implemented have already been determined.

1) Proposed Adjusted Metering Practice Implementation Plan; and

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5. Do you agree that the proposed amendments to Section 502.10, taken together with all ISO rules, support a fair, efficient, and openly competitive market? If not, why?

AltaLink Management Ltd. (AML)

27. AltaLink agrees.

ATCO Ltd.

28. No comment.

ENMAX Power Corporation

29. Agree.

EPCOR Distribution and Transmission Inc.

 EPCOR does not have any specific comments on this item, but does not want to be construed as providing favorable comments.

Kalina Distributed Power

31. No. The AMP itself is discriminatory against DCGs and it does not fundamentally reflect the physical flows of electricity from a DCG.

- 27. The AESO acknowledges AltaLink's comment.
- 28. The AESO acknowledges ATCO's comment.
- 29. The AESO acknowledges ENMAX's comment.
- 30. The AESO acknowledges EPCOR's comment.

31. The AESO disagrees that the adjusted metering practice is discriminatory against DCGs. The adjusted metering practice is a practice of contracting, measuring and billing in a manner that reflects the flows through the physical points of connection between a distribution system and the transmission system. It is not intended to reflect the flows of DCGs since DCGs are connected to a distribution system.

Please see AESO response #26.

Lionstooth Energy Inc.

32. No. The AMP does <u>not</u> reflect the reality of actual physical electricity flows on the interconnected electric system, and therefore does not support a FEOC market.

Again, the purpose of the AMP is to ensure compliance with the *EUA*, which

32. The AESO disagrees. The adjusted metering practice is a practice of contracting, measuring and billing in a manner that reflects the flows through the physical points of connection between a distribution system and the transmission system.

Please see AESO response #26.

1) Proposed Adjusted Metering Practice Implementation Plan; and



Development of a Proposed ISO Rule	Stakeholder Comments and/or Alternate Proposal	AESO Responses
	has nothing to do with FEOC in the EOM.	
	To suggest that the AMP will ensure "consistent and fair treatment" between TCG and DCG ignores all the other areas where disparities exist, to the benefit of TCG	
	Signalta Resources Limited	
	33. Without the AMP, no changes are required	33. Please see AESO response #26.

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6.	Do you agree that the
	proposed amendments to
	Section 502.10 support the
	public interest? If not, why?

AltaLink Management Ltd. (AML)

34. AltaLink agrees.

ATCO Ltd.

35. No comment

ENMAX Power Corporation

36. Agree.

EPCOR Distribution and Transmission Inc.

37. EPCOR does not have any specific comments on this item, but does not want to be construed as providing favorable comments.

Kalina Distributed Power

38. No. The AMP contributes to ongoing increased fixed system costs and passes those costs along to either ratepayers or DCGs. Rather than the AESO fixing their forecasting problems which has led to an expensive overbuilt system, along with their failure to plan for DCGs (which the AESO has continually stated), the AESO rather continues to find new ways to increase fixed system costs.

Lionstooth Energy Inc.

39. No. Lionstooth remains unconvinced that implementing the AMP is in the public interest, on the basis that, despite frequent requests, there remains no quantitative analysis confirming that the AMP will achieve the AESO's desired outcomes.

34. The AESO acknowledges AltaLink's comment.

35. The AESO acknowledges ATCO's comment.

36. The AESO acknowledges ENMAX's comment.

37. The AESO acknowledges EPCOR's comment.

38. Please see AESO responses #6 and #32.

39. Please see AESO responses #6 and #19.

1) Proposed Adjusted Metering Practice Implementation Plan; and



Development of a Proposed ISO Rule	Stakeholder Comments and/or Alternate Proposal	AESO Responses
	Signalta Resources Limited	
	40. No. Given the AUC decision regarding phase out of DFO DG Credits, the incremental cost associated with continuing with the AMP Implementation needlessly inflates T costs for minimal if any benefit to consumers.	40. Please see AESO response #6

1) Proposed Adjusted Metering Practice Implementation Plan; and

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7. Please provide any comments or views on the need for the development of a related information document, including the type of content that should be included.

AltaLink Management Ltd. (AML)

41. None.

ATCO Ltd.

42. An AMP Information document would be useful.

ENMAX Power Corporation

43. No comment at this time.

EPCOR Distribution and Transmission Inc.

44. EPCOR does not have any specific comments on this item, but does not want to be construed as providing favorable comments.

Kalina Distributed Power

45. The AESO states in its letter of October 14 2021 that it is relying on AUC Decision 22942-D02-2019 as the rational for the AMP, where the Commission concluded that AMP is required to ensure that "...the subsidy provided to distribution connected generators that the AESO considered to be partially enabled by the AESO's existing metering practice" is either reduced or eliminated. This is a misleading statement by the AESO as they fail to cite the more recent decision by the Commission 26090-D01-2021, whereby no finding was made that a subsidy exists. It would be helpful if the AESO were more accurate and forthright in its characterizations rather than using outdated information.

- 41. The AESO acknowledges AltaLink's comment.
- 42. The AESO anticipates developing an information document on the adjusted metering practice.
- 43. The AESO acknowledges ENMAX's comment.
- 44. The AESO acknowledges EPCOR's comment.

45. The AESO acknowledges Kalina's comment.

1) Proposed Adjusted Metering Practice Implementation Plan; and



Development of a Proposed ISO Rule	Stakeholder Comments and/or Alternate Proposal	AESO Responses
	Lionstooth Energy Inc.	
	46. An ID should likely accompany 502.10.	46. Please see AESO response #42.
	Signalta Resources Limited	
	47. Without the AMP, no new ID is required	47. Please see AESO response #26.

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8. If approved, the AESO will propose an effective date of April 1, 2022. Do you agree? If not, why?

AltaLink Management Ltd. (AML)

48. AltaLink agrees

ATCO Ltd.

49. Yes, we agree.

ENMAX Power Corporation

50. Agree. It is EPC's understanding that while Section 501.10 will have an effective date of April 1, 2022, this will account for a transitory period to allow any necessary metering alterations to be completed, and the timeline to comply with the new requirements in Section 501.10 will vary from substation to substation.

Should there be changes to the timeline of the AESO's AMP implementation plan, the effective date for amended Section 501.10 should be revised accordingly to ensure the timelines remain aligned.

EPCOR Distribution and Transmission Inc.

51. EPCOR does not have any specific comments on this item, but does not want to be construed as providing favorable comments.

Kalina Distributed Power

52. No. Please see answer above.

Signalta Resources Limited

53. Without the AMP, no timeline is required

- 48. The AESO acknowledges AltaLink's comment.
- 49. The AESO acknowledges ATCO's comment.
- 50. The proposed effective date for all proposed changes to Section 502.10 is April 1st, 2022, but the AESO will amend subsection 4 of the proposed Section 502.10 to clarify that only substations that install or replace switchgear **after July 1, 2022** are subject to the requirements.

The effective date of April 1st, 2022 aligns with the effective date of the ISO tariff provisions that enable the *AMP Implementation Plan*. Should there be changes to the timeline of the *AMP Implementation Plan*, the AESO will revise the effective date for Section 502.10 and the ISO tariff provisions accordingly.

- 51. The AESO acknowledges EPCOR's comment.
- 52. The AESO acknowledges Kalina's comment.
- 53. Please see AESO response #26.

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9.	Do you have any additional
	comments regarding the
	proposed amendments to
	Section 502.10?

AltaLink Management Ltd. (AML)

54. None.

ATCO Ltd.

55. No additional comments.

ENMAX Power Corporation

56. No comment at this time.

EPCOR Distribution and Transmission Inc.

57. EPCOR requests clarity on whether the AESO intends to issue a functional specification on the types of projects included in Section (4) of the proposed Section 502.10 of the ISO Rules.

EPCOR requests clarity on how the AESO will expect TFOs to apply the proposed amended Section 502.10 of the ISO Rules to projects that are currently in progress.

Kalina Distributed Power

58. The AESO has not provided enough information or opportunity for discussion in order to make an informed decision.

Lionstooth Energy Inc.

59. An overbuilt Tx system and a lack of appropriate planning by the AESO has caused the high delivered cost of power in our market. Not DCG.

Constantly pursuing change to metering and tariff structures discourages development, forces customers to choose between defection and the grid,

- 54. The AESO acknowledges AltaLink's comment.
- 55. The AESO acknowledges ATCO's comment.
- 56. The AESO acknowledges ENMAX's comment.
- 57. The AESO anticipates issuing a functional specification for new substations and for existing substations with non-like-for-like modifications. The AESO will not issue a functional specification for like-for-like capital replacement projects. This is the AESO's current practice.

In respect of how proposed amended Section 502.10 will be applied to in-flight projects and maintenance work, the AESO will continue to work with stakeholders to make expectations clear, including developing an information document if necessary.

- 58. The AESO acknowledges Kalina's comment.
- 59. The AESO disagrees with Lionstooth. The adjusted metering practice is required for the reasons approved by the Commission in Decision 22942-D02-2019.

1) Proposed Adjusted Metering Practice Implementation Plan; and



Development of a Proposed ISO Rule	Stakeholder Comments and/or Alternate Proposal	AESO Responses
	and prioritizes wires utilities and TCG over load and DCG.	
	Signalta Resources Limited	
	60. <i>No</i>	60. The AESO acknowledges Signalta's comment.

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10.	Do you have any comments
	on the <i>Adjusted Metering</i>
	Practice Implementation Plan?

AltaLink Management Ltd. (AML)

61. None.

ATCO Ltd.

62. Previously provided comments.

ENMAX Power Corporation

63. Yes. On September 29, 2021, EPC had provided the AESO (amp.implementation@aeso.ca) with a number of comments and questions regarding the AMP implementation plan. To date, we have not seen any additional follow-up to that correspondence and would like to know what the AESO's next steps are for addressing our previous comments and concerns.

EPC continues to review the AESO's AMP implementation plan in further detail to determine impacts. Additional questions may arise based on our review and depending on what the AESO's responses are to our original questions submitted on September 29.

EPCOR Distribution and Transmission Inc.

64. EPCOR does not have any specific comments on this item, but does not want to be construed as providing favorable comments.

DCG Consortium

65. The AESO notes that there are 85 DFO substations with DCGs downstream. 75 of these have feeder level revenue class meters and 10 do not. As a result, 61. The AESO acknowledges AltaLink's comment.

62. The AESO acknowledges ATCO's comment.

63. Please see AESO response #16.

64. The AESO acknowledges EPCOR's comment.

65. Please see AESO response #6.

The AESO does not have sufficient information at this time to reasonably set a firm deadline for

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under the AESO proposal, DCGs connected to 75 substations are part of Category B and will be metered at the feeder level for the purposes of DCG Credits effective July 1, 2022, while DCGs connected to the remaining 10 substations will continue to be metered at the substation level for DCG Credit calculation purposes for months or years after July 1, 2022.

The AESO notes that it will work with TFOs to develop a master schedule for the Category C substations, but that it currently expects only one or two substations will be upgraded in each service territory each year. Per the AESO's consultation schedule, the AESO has committed to respond to stakeholder comments on November 25. The DCG Consortium requests that the AESO break down these 10 substations into the number of substations in each of ENMAX. EPCOR, Red Deer and Lethbridge service territories. Without this breakdown, the DCG Consortium assumes the AESO expects Category C to take between two and ten years to complete.

Even on the low end of two years, this discriminates and creates a concerning unfairness between DCGs that will transition to the adjusted metering practice in Category B on July 1, 2022, and DCGs that will transition to the adjusted metering practice in Category C at some point over the next several

Category C work. The AESO does not intend to provide a breakdown of the preliminary number of Category C substations as the number of Category C substations will not be determined until DFOs complete the analysis in Phase 1.

The AESO has considered the DCG Consortium's proposal to set the effective date of the adjusted metering practice at Category B and Category C substations to be the month after the final Category C substation has had new meters installed, but has decided not to adopt it for the following reasons:

- a) Beyond practical efficiencies achieved by implementing administrative changes in bulk for Category B substations, there is no reason to tie the timing of billing at one substation to another. The adjusted metering practice ensures more accurate contracting and billing to rectify billing determinant erosion, so it is in the public interest for the AESO to accurately bill a substation as soon as possible.
- b) The AESO has been directed to implement the adjusted metering practice without legacy treatment, so the AESO is endeavoring to implement the adjusted metering practice as soon as reasonably practicable. The longer transition period required for Category C substations equates to the "natural transition period to install the new gross meters", which the Commission expressly contemplated and approved in its direction to the AESO to file an implementation plan. The AESO does not consider that this will result in discriminatory tariff treatment as between market participants since the AESO is providing each market participant with reasonable access to the transmission system based on the infrastructure in place.
- c) The substations in Category B will primarily be in rural service areas, and the substations in Category

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years. In addition, this is also concerning as it relates to the timing of the first DCG to transition to the adjusted metering practice in Category C and the last DCG to transition to the adjusted metering practice in Category C.

The DCG Consortium suggests that the effective date of the adjusted metering practice at all substations should be the month after the final Category C substation is equipped with the required metering infrastructure, MDPR, and SAS agreement. Anything other than this would be unfair and create an unlevel playing field among similarly situated DCGs. In particular, the DCG Consortium submits that this would result in discriminatory tariff treatment as between market participants.

C will primarily be in urban service areas. The AESO notes that charges (and credits) applicable to DCGs differs across the different DFOs, and that some DFOs do not even offer DCG credits. That some substations will be billed under the adjusted metering practice before others does not contribute to an unlevel playing field for DCGs. The AESO does not consider that the effective date for Category B substations should be tied to Category C substations. Currently, DCGs located in different DFO service areas can face different charges (and credits). The adjusted metering practice is about rectifying the erosion of ISO tariff billing determinants at substations that serve DFOs, and it is up to the specific DFO to determine how they will provide service to, and charge, DCGs.

For the "similarly situated DCGs" located in the same DFO service area at substations that may have the adjusted metering practice in place at different times, the AESO notes that there will be up to 10 Category C substations, split between ENMAX and EPCOR service areas. Assuming an even split of five substations per service area, the AESO's general guideline of one to two projects per TFO underway per year could result in the adjusted metering practice being in place for all five substations within three years. The AMP Implementation Plan noted that the AESO will work with the TFO to prioritize the substations and develop the schedule - if necessary and if possible, the AESO can work with the TFO to expedite the schedule to get the adjusted metering practice in place at all substations as soon as possible.

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Kalina Distributed Power

66. The plan is confusing and uses partial vagaries such as "Costs should be allocated based on cost causation, so that those who **benefit** bear the cost". What does the AESO exactly mean by "benefit"? How is it defined?

The AESO further states that "Costs cannot be allocated to a DCG after it has energized if the DCG does not directly cause those costs". That is not sufficient. Generators make investment decisions on whether or not to proceed with a project well before energization including when a project makes its final investment decision (FID); a formal gate in the investment process. By the time a project makes its FID project economics are frozen. These statements by the AESO clearly show they have no idea how investment decisions are made by the private sector. It is further troubling given that the AESO and DCGs have already gone through a lengthy hearing on substation fractioning where it was made clear to the AESO that investment decisions are made well in advance of energization.

Lionstooth Energy Inc.

67. Lionstooth did not find the Implementation Plan overly clear, with inconsistencies between the Plan and the Background Presentation.

Focusing on cost impacts, the principles and guidance for cost treatment don't

66. Please see AESO response #19.

The AESO disagrees that the AMP Implementation Plan is confusing or vague. The AESO notes that parties directly involved with the implementation (DFOs and TFOs) did not raise concerns that the AMP Implementation Plan is unclear.

The AESO notes that the principle included in the AMP Implementation - Background Information document that states that "costs cannot be allocated to a DCG after it has energized if the DCG does not directly cause those costs" is the exact principle that the Commission directed the AESO to consider in the decision for the substation fraction proceeding (see paragraph 39 of Decision 25848-D01-2020).

67. Please see AESO responses #19 and #66.

The AESO disagrees with Lionstooth's conclusions regarding the application of the principles and guidance for cost treatment.

Lionstooth's estimate of \$45M to \$53M to comply with the adjusted metering practice is misleading because it assumes that all 60-70 of these

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illustrate the full picture:

- Costs should be allocated based on cost causation. In this case, compliance with the EUA has caused the need for a metering change, not DCG.
- The AESO's proposed Implementation Plan does disadvantage one group over another, specifically those who will bear the burden of the cost of compliance, without receiving any benefit.
- Passing cost allocation issues onto the DFO is not an Implementation Plan, just more uncertainty and regulatory inefficiency.
- Costs should not be allocated to DCG since the AMP has nothing to do with DCG and everything to do with EUA compliance.

While the Implementation Plan did <u>not</u> provide an estimate of the total cost of compliance with AMP, applying the \$750k average cost to the 60-70 Category C retrofit substations, places the total cost of compliance with the AMP at \$45 million to \$53 million.

This notably does <u>not</u> include costs for implementing contract changes to substations already with gross metering, costs for entirely new substations to be outfitted with gross metering, and long-

substations will have enough DCG connected to cause reversing flows onto the transmission system. As noted in the *AMP Implementation Plan*, these Phase 3 substations do not require retrofits to install feeder-level metering until there are reverse flows. The AESO (and DFOs) cannot anticipate when, or even if, a substation will have enough DCG connected to reverse flow in the future. Also, Lionstooth's estimates does not take into consideration that if TFOs perform any upgrades or alterations that involve installing or replacing the switchgear, feeder metering will be installed at that time, avoiding the costs of retrofitting to install feeder-level metering.

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term O&M costs associated with revenue class gross meters.

Lionstooth remains of the view that there has <u>not</u> been sufficient quantitative analysis demonstrating that the benefits of the AMP outweigh its costs.

Changes are required to the AMP Implementation Plan to make it more clear in terms of extent, timing, and costs, and so that it will be be more efficient and effective.

Signalta Resources Limited

68. Given the planned phase-out of DG Credits (starting Jan. 2022), the AMP becomes a low value / high cost scope of work that provides minimal if any benefit to load customers but further add to the Transmission Rate bases of TFO's further escalating rates. It also increases the administrative burden on an already resource constrained utilities. The exclusion of MG contributions based on their size and nature (sized to a person's load) is not reasonable based on the up to 5MW approval level now in place. These MG's collectively can impact a feeder significantly and the only party that will bear the brunt of the new measured import are DGs connected to that feeder. If the AESO's intent is to ensure a more accurate measurement flow to and from the transmission system, MG's should be included as large MG's have bi-directional interval meters installed as

68. Please see the AESO's response regarding item #6 above.

With respect to the comment regarding microgeneration: The DFO feeder flow analysis in Phase 1 assesses the flows at the connection to the substation, and therefore must take into account all sources of downstream generation, including microgeneration. Footnote 3 in the posted AMP Implementation Plan was intended to convey that the use of DCG, which excludes microgeneration, is only for the purpose of preliminary substation counts to provide context in the AMP Implementation Plan. The AESO recognizes that some feeders with microgeneration will have reversals, and some substations with larger DCGs may not. However, the AESO believes that this would be generally representative of the expected numbers without needing to perform feeder flow analysis. The AESO will update the AMP Implementation Plan to more clearly reflect this.

1) Proposed Adjusted Metering Practice Implementation Plan; and



Development of a Proposed ISO Rule	Stakeholder Comments and/or Alternate Proposal	AESO Responses
	part of their interconnection requirements.	
	There are far higher value system issues at play and removal of this low value / high cost scope of work will allow industry efforts to be better allocated. These include the AESO, DFO's and their avoided work collecting and analyzing feeder data, TFO's and the avoided projects.	
	The removal of AMP also supports red tape reduction.	

- 1) Proposed Adjusted Metering Practice Implementation Plan; and
- 2) Proposed Amendments to Section 502.10 of the ISO rules, Revenue Metering System Technical and Operating Requirements ("Section 502.10")



11. Do you have comments in regard to the proposed treatment of costs for installing new revenue meters as outlined in the Adjusted Metering Practice Implementation Plan – Background Information document?

AltaLink Management Ltd. (AML)

69. None.

ATCO Ltd.

70. No comment

ENMAX Power Corporation

71. On slide 18 of the AESO's presentation titled "AMP Implementation — Background Information" the AESO provided information regarding feeder metering costs for new builds and alterations. Can the AESO confirm that as part of its filing to the AUC, it intends to seek a determination that the AUC approve, in general, that TFOs will be including the costs of revenue metering infrastructure for future projects to be funded through things such as asset replacements (e.g., GTA or TCOS filings)?

EPCOR Distribution and Transmission Inc.

72. EPCOR requests additional information on the AESO's rationale for the cost treatment of Category C substations.

EPCOR requests clarification on the methodology and the criteria the AESO is intending to use to classify the costs of the feeder meter between system and participant costs. As written, the Adjusted Metering Practice Implementation Plan does not provide any certainty as to how the costs for Phase 3 projects will be treated under the ISO Tariff. Does the AESO intend to classify the costs as "system-related" for

- 69. The AESO acknowledges AltaLink's comment.
- 70. The AESO acknowledges ATCO's comment.
- 71. The AESO intends to address the issue of how the costs of implementing the adjusted metering practice in its upcoming filing for the AMP implementation plan and proposed amended section 502.10. The AESO confirms that as part of its filing with the Commission, the AESO intends to seek a general determination that TFOs can include the incremental cost of metering required for the adjusted metering practice (in cases where TFOs are adding metering scope to proposed alterations that include installing/replacing switchgear) in their GTAs, where applicable and subject to prudency considerations.
- 72. For Category C substations, as noted on slide 16 of the AMP Implementation Background Info, because flows from these substations are based on DFO and DCG decisions made in the past, and there are no associated connection projects with these substations, costs will be recovered as "system" costs.

For Phase 3 substations that require retrofits, subsection 4.10(3) of the ISO tariff provides the AESO with discretion to determine costs to be system-related in circumstances where strict application of the construction contribution provisions would classify the costs as participant-related. The AESO is exploring different

- 1) Proposed Adjusted Metering Practice Implementation Plan; and
- 2) Proposed Amendments to Section 502.10 of the ISO rules, Revenue Metering System Technical and Operating Requirements ("Section 502.10")



future customer-driven metering
installs?

alternatives for the methodology it will use to
classify costs as system-related (including the
alternative noted on slide 17), and will provide its
proposal, along with rationale, in its upcoming

application.

DCG Consortium

73. The DCG Consortium does not have any issue with costs of meter infrastructure for Category C substations being collected through the TFO rate base. The DCG Consortium also does not have any issue with costs of future projects being allocated to DFOs via CCDs.

However, the AESO notes that "To the extent possible, the allocation of costs (and flow through of AESO contributions) should send a signal to end-customers, including DCG, about the costs to connect." This language should not form a part of the AESO's application to the Commission.

This suggestion is out of scope for the adjusted metering practice implementation proceeding and including it will reduce regulatory efficiency as the DCG Consortium, and likely other parties, will want to challenge and fully explore the meaning and intent of this statement, and what it means for DCGs.

The AESO itself admits that "The manner and quantum of participant costs that DFOs flow through to DCGs

73. The AESO acknowledges the DCG Consortium's comments.

1) Proposed Adjusted Metering Practice Implementation Plan; and

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is a matter best addressed in the DFO's tariff." This will not be a DFO tariff proceeding.

The DCG Consortium would further note that the Commission already ruled on this matter in Decision 25848-D01-2020 by setting the substation fraction equal to one at DFO substations. This decision cannot be reviewed by the Commission in the adjusted metering practice implementation proceeding.

Kalina Distributed Power

74. Please see above response.

Lionstooth Energy Inc.

75. See above.

Signalta Resources Limited

76. If the plan is to continue with implementation of AMP, why can the DFO automated feeder meters already installed not be utilized? Most are more or less in place now and despite not being Revenue Class meters, would provide as reasonable levels of accuracy as Revenue class meters with MG contributions not considered. They can reflect negative flows from the distribution system.

- 74. The AESO acknowledges Kalina's comment.
- 75. The AESO acknowledges Lionstooth's comment.
- 76. Please see AESO response #12.

The feeder meters required to comply with the proposed amended Section 502.10 must be revenue class rated. DFOs may use non-revenue class meters or sensors for the purposes of SCADA operation and distribution system automation. However, these meters or sensors cannot be used for financial settlement purposes, pursuant to Measurement Canada requirements.

The adjusted metering practice is triggered by reverse flows from a distribution system to the transmission system, which occur when the amount of DCG on a feeder is greater than load on the feeder. Many substations with DCGs do not, and will not, have sufficient generation for reverse flows to occur. In such cases, those substations are already compliant with the adjusted metering practice and require no immediate changes.

1) Proposed Adjusted Metering Practice Implementation Plan; and



Development of a Proposed ISO Rule	Stakeholder Comments and/or Alternate Proposal	AESO Responses
	The costs provided in the background information reflects around 10 substations needing Physical work. Given the number of DER's currently connected, I would venture the number to be at minimum triple the number identified. The time to get these substations upgraded is far underestimated and DG Credits will have been phased out long before the stations needing the meters is complete.	The AESO acknowledges Signalta's comments regarding costs.
	Alberta's unfettered support of an energy only market combined with the provision of an unconstrained transmission system to GFO's is needlessly jeopardizing the Alberta Advantage. Commodity prices for electricity and Wires charges need to be considered together as they are interdependent to load customers.	