

### ALM Session – April 15, 2021 Comments

### Stakeholder comments on April 15 session [Posted May 12,2021]

- Alberta Direct Connect
- Alberta Newsprint Company
- Capital Power
- Enmax
- Greengate
- IPCAA
- Suncor
- TransAlta

#### Alberta Electric System Operator

Calgary Place, 2500, 330-5th Avenue SW Calgary, AB T2P 0L4

**C** Phone: 403-539-2450 | Fax: 403-539-2949





Period of Comment:	April 15, 2021 through April 30, 2021	Contact:
Comments From:	Alberta Direct Connect "ADC"	Phone:
Date:	2021/04/29	Email:

Instructions:

- 1. Please fill out the section above as indicated.
- 2. Please respond to the questions below and provide your specific comments.
- 3. Please submit one completed matrix per organization.
- 4. Email your completed comment matrix to <u>stakeholder.relations@aeso.ca</u> by April 30, 2021

	Questions	Stakeholder Comments
1.	Do you agree that Adjustment for Load on the Margin should be pursued further? Please explain.	ADC supports further work on ALM to improve price fidelity in the Alberta market. The AESO should focus on rules for load participation that recognize the unique characteristics of load. Rule and compliance should encourage participation and not be a barrier to participation.
2.	Do you have any comments on Adjustment for Load on the Margin eligibility? Do you agree with the recommendation that the adjustment should be based on bid? Is there anything the AESO has not considered? Please explain.	It is important for the rules and compliance to recognize the very different characteristics of load versus generators. ADC agrees that the adjustment should be based on bid.
3.	Do you have any comments on how Adjustment for Load on the Margin cost should be allocated? Is there anything the AESO has not considered? Please explain.	ADC supports allocating costs to load, as loads are the beneficiaries of reduced pool prices resulting from price responsive load bidding into the market.
4.	Do you have any concerns or suggestions on Adjustment for Load on the Margin engagement process and timeline?	ADC considers the process and timeline to be adequate for the purpose.

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5.Do you have any other suggestions or comments you would like to share with the AESO related to the Adjustment for Load on the Margin stakeholder session or the engagement activities?The ADC remains supportive of movir preferred long term solution to improv	g to shorter settlement intervals as the price fidelity.
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Period of Comment:	April 15, 2021 through April 30, 2021	Contact:
Comments From:	Alberta Newsprint Company	Phone:
Date:	2021/04/29	Email:

Instructions:

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	Questions	Stakeholder Comments
1.	Do you agree that Adjustment for Load on the Margin should be pursued further? Please explain.	Yes, ALM should be pursued further. Forming rules that make it practical for loads to bid is a reasonable step towards better price fidelity. Alberta has substantial flexible load, however, the hourly ex-post settlement leads to suboptimal response from these loads. Given the AESO's recommendation to not pursue sub-hourly settlement, ALM has the potential to simulate similar fidelity benefits that would have been achieved through sub-hourly settlement. ALM also has the potential to create balance in the marketplace against Payment to Suppliers on the Margin.
2.	Do you have any comments on Adjustment for Load on the Margin eligibility? Do you agree with the recommendation that the adjustment should be based on bid? Is there anything the AESO has not considered? Please explain.	It is important to recognize the very different characteristics of load versus generators. Generators produce electricity and sometimes heat, however industrial loads produce a line of products that vary in their electrical intensity and contractual commitments to their customers. Typically, an industrial load is made up of many machines whose ability to turndown, curtail or start back up again is limited by real world considerations such as sales commitments, or intermediate storage levels. In ANC's case, our real time load fluctuates dramatically as it is composed of hundreds of motors, each responding to real time signals to ensure quality and grade of the finished product is maintained. The ability to restate load bids up, within T-2, is critical to ensure that process integrity can be maintained.

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		It should be considered that the bulk of the framework of AESO rules, relative to dispatch, directives and compliance, were written with the characteristics of generators in mind. Flexible industrial loads, like ANC, are merely attempting to make their product at a price that competes in a trade exposed industry. There is no ability to exercise market power at industrial complexes, since load is widely held with many participants. ANC is one of Alberta's largest single site loads, yet ANC has no ability to manipulate power prices to benefit their portfolio since they are about 1% of the overall Alberta peak load. It is the burden of compliance that currently prevents loads from considering bidding, as well as the lack of ALM for intra-hour price excursions. The AESO stated several times in the session that they are seeking symmetry between generators and loads, yet loads bear little resemblance to generators and the rules are clearly written to consider the abilities of mainstream generation and to protect against market power holders manipulating prices. The most certain way to ensure loads continue to avoid bidding is to insist on symmetry of rules.
3.	Do you have any comments on how Adjustment for Load on the Margin cost should be allocated? Is there anything the AESO has not considered? Please explain.	ANC considers that likely loads stand to benefit the most from ALM, since it creates some financial certainty for flexible loads to offer their price responsiveness. The micro-economic calculation of marginal loss paid out to the responsive load, should produce attractive macro-economic benefits for all other loads, since the pool price will settle lower than would otherwise happen if the load was not bidding. This is why ANC supports allocating the costs of ALM to loads.
4.	Do you have any concerns or suggestions on Adjustment for Load on the Margin engagement process and timeline?	ANC considers the process and timeline to be adequate for the purpose.
5.	Do you have any other suggestions or comments you would like to share with the AESO related to the Adjustment for Load on the Margin stakeholder session or the engagement activities?	There may be reasons why the AESO should look at the possibility of offering lost opportunity costs to loads. More study is required, but ANC's initial review points towards the increase in willingness to bid load if the lost opportunity is compensated during those times when loads were dispatched down, yet the price settled below their threshold. In addition, it may be worthwhile to consider the lost opportunity when a long lead time load gets dispatched down, but cannot start up the process again when the power price would otherwise dictate. This analysis may uncover a benefit to all loads as it will decrease the amount of marginal load that consumes because they cannot bear the long lead time to start back again. Again the macro-

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	economic benefit may be much larger than the micro-economic expense. It should at least be studied so an informed choice can be made.



Period of Comment:	April 15, 2021 through April 30, 2021	Contact:
Comments From:	Capital Power Corporation	Phone:
Date:	2021/04/30	Email:

Instructions:

- 1. Please fill out the section above as indicated.
- 2. Please respond to the questions below and provide your specific comments.
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	Questions	Stakeholder Comments
1.	Do you agree that Adjustment for Load on the Margin should be pursued further? Please explain.	Capital Power appreciates the opportunity to provide feedback on the AESO's presentation relating to Adjustment for Load on the Margin (ALM). <b>Capital Power agrees with the AESO's view that ALM enables principles of fairness, efficiency and competition, and therefore, there is merit in pursuing it further.</b>
2.	Do you have any comments on Adjustment for Load on the Margin eligibility? Do you agree with the recommendation that the adjustment should be based on bid? Is there anything the AESO has not considered? Please explain.	<b>Capital Power supports the AESO's proposed eligibility requirements.</b> Limiting eligibility of ALM to source assets provides for an adjustment option that is analogous to payment for suppliers on the margin (PSM), which is only available to source assets. Providing these separate but equal opportunity adjustments to both sink and source assets promotes fairness and enables a level playing field.
		<b>Capital Power supports the AESO's recommendation that the adjustment be based on bid versus SMP.</b> As with the eligibility requirements, this proposal promotes fair and equivalent treatment between sink and source assets. Capital Power supports the AESO's conclusion that adjustments made based on bids promote fairness, efficiency and competition and meet the AESO's design objective to develop a mechanism analogous to PSM.

3.	Do you have any comments on how Adjustment for Load on the Margin cost should be allocated? Is there anything the AESO has not considered? Please explain.	Capital Power supports and agrees with the AESO's evaluation of possible cost options.
4.	Do you have any concerns or suggestions on Adjustment for Load on the Margin engagement process and timeline?	At this time, Capital Power has no concerns regarding the proposed engagement process or timeline.
5.	Do you have any other suggestions or comments you would like to share with the AESO related to the Adjustment for Load on the Margin stakeholder session or the engagement activities?	Capital Power remains concerned that an objective of ALM is to incent ES full- range participation and the AESO's proposal to include ALM in the ES initiative validates this concern. While full-range ES participation may be a reasonable by-product of the ALM design, it should not be considered as a meaningful mechanism that will <u>incent</u> ES full-range participation. For example, and as previously stated by Capital Power in the ES consultation process, incentive for ES to submit a bid is immaterial relative to overall settlement (in 2020 PSM totaled \$0.75 MM, or less than 0.1% of total market value). Capital Power supports full- range ES participation but is concerned the AESO's proposals thus far do not do enough to encourage this behaviour.



Period of Comment:	April 15, 2021 through April 30, 2021	Contact:
Comments From:	ENMAX Corporation	Phone:
Date:	2021/04/27	Email:

Instructions:

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- 2. Please respond to the questions below and provide your specific comments.
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	Questions	Stakeholder Comments
1.	Do you agree that Adjustment for Load on the Margin should be pursued further? Please explain.	As long as there is sufficient interest by load customers, ALM is worth further exploration. If ALM is pursued, it should only apply to load greater than or equal to 5 MWs in size (storage applicability still requires further consideration, see response to Question 4).
2.	Do you have any comments on Adjustment for Load on the Margin eligibility? Do you agree with the recommendation that the adjustment should be based on bid? Is there anything the AESO has not considered? Please explain.	ALM should be based on bid to be analogous to the PSM program.
3.	Do you have any comments on how Adjustment for Load on the Margin cost should be allocated? Is there anything the AESO has not considered? Please explain.	ALM costs should be borne by load side market participants. This is where the benefit is realized. Again, this would be analogous to uplift payments in the PSM program.
4.	Do you have any concerns or suggestions on Adjustment for Load on the Margin engagement process and timeline?	ENMAX's main concern is that significant effort will be made by the AESO to implement ALM only to result in a lack of interest and use by load. A strong endorsement from industrial and commercial consumers would be needed prior to undertaking significant expense on the ALM project.



		At this time, the storage implications are still not yet well understood by market participants and ENMAX is unsure if ALM should apply only to load above 5 MW or be extended to include storage above 5 MW as well.
5.	Do you have any other suggestions or comments you would like to share with the AESO related to the Adjustment for Load on the Margin stakeholder session or the engagement activities?	None.



Period of Comment:	April 15, 2021 through April 30, 2021	Contact:
Comments From:	Greengate Power Corporation	Phone:
Date:	[2021/04/29]	Email:

Instructions:

- 1. Please fill out the section above as indicated.
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	Questions	Stakeholder Comments
1.	Do you agree that Adjustment for Load on the Margin should be pursued further? Please explain.	Yes. Greengate agrees that ALM should be pursued further and is generally supportive of use of ALM.
		The foundational purpose for instituting the ALM mechanism is sound and rational, as participating loads should not have to pay more than their bid price for energy. Greengate also believes that enabling flexible load consumption, through ALM, is an important optional capability for grid charging of energy storage assets.
2.	Do you have any comments on Adjustment for Load on the Margin eligibility? Do you agree with the recommendation that the adjustment should be based on bid? Is there anything the AESO has not considered? Please explain.	It is reasonable that ALM participation is only eligible to sink assets that actively bid into the energy market and subsequently comply to dispatch obligations and directives.
		Greengate generally agrees that the true-up to bid approach is a reasonable mechanism for implementation of ALM. It is good practice to maintain consistent treatment where there is an analogous product, in this case the payment for suppliers on the margin (PSM) provided to generators. Also, it reduces cost risk to participating sink assets compared to the alternative of paying a potentially higher price (SMP) than the asset was willing to pay to consume energy from the grid (as dictated by the bid).

		Requires terms and conditions on how to cancel use of ALM if a party chooses to not use the ALM service after a period.
3.	Do you have any comments on how Adjustment for Load on the Margin cost should be allocated? Is there anything the AESO has not considered? Please explain.	Greengate believes that costs should be allocated to all sink assets consuming in the hour, other than assets under ALM. This appears to be the optimal approach to cost allocation based on fairness (equivalency to PSM) and efficiency (minimizing implementation costs).
4.	Do you have any concerns or suggestions on Adjustment for Load on the Margin engagement process and timeline?	Greengate supports an ALM approval process that follows a reasonable timeline.
5.	Do you have any other suggestions or comments you would like to share with the AESO related to the Adjustment for Load on the Margin stakeholder session or the engagement activities?	Greengate appreciates the opportunity to provide commentary regarding ALM and is generally supportive of the AESO's proposed integration of ALM.



Period of Comment:	April 15, 2021 through April 30, 2021	Contact:
Comments From:	Industrial Power Consumers Association of Alberta (IPCAA)	Phone:
Date:	2021/04/30	Email:

Instructions:

- 1. Please fill out the section above as indicated.
- 2. Please respond to the questions below and provide your specific comments.
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	Questions	Stakeholder Comments
1.	Do you agree that Adjustment for Load on the Margin should be pursued further? Please explain.	IPCAA can agree that ALM should be pursued further; however, in its present proposed form, it is of little value to major industrial loads in Alberta.
		The AESO design does not recognize that when an industrial load is dispatched down, its processes are upset, and it takes time to stabilize until it can again consume.
		A load would be dispatched down by the AESO and receive one ALM payment when the SMP is below the load's bid price and then immediately dispatched up provides no value. An industrial load is better off determining the future validity of the AESO forecast and making its own consumption decision.
		ALM's only value would be to Energy Storage (ES) projects that can follow the AESO's dispatch instructions in their present form. Even then, it is not clear whether the ALM payment would be sufficient for the dispatch variability they would face when SMP is close to their bid price.
2.	Do you have any comments on Adjustment for Load on the Margin eligibility? Do you agree with the recommendation that	While IPCAA would agree that all loads that can bid into the market and follow dispatch should be eligible for ALM, the AESO's proposed design will likely make most major industrial loads abstain from registering.



	the adjustment should be based on bid? Is there anything the AESO has not considered? Please explain.	While IPCAA can agree that ALM is based on the bid, the AESO has not considered the ability to follow dispatch after being dispatched down by the AESO. Industrial loads in Alberta are not like generators in that once dispatched down, their processes have been "upset" and require time to stabilize before a load can dispatch up.
		Unlike ES that can dispatch up within 5 minutes after being dispatched down by the AESO under an ALM scheme, industrial load requires time to stabilize its processes.
		IPCAA anticipates that after being dispatched down, there will likely be many instances of the AESO wanting the load to dispatch back up and consume as the SMP is now below the load's bid price. Due to upset processes, it will now be non-compliant with the AESO's dispatch instructions and ineligible for a further ALM payment.
3.	Do you have any comments on how Adjustment for Load on the Margin cost should be allocated? Is there anything the AESO has not considered? Please explain.	IPCAA would agree that similar to suppliers on the margin, cost should be allocated as an uplift to loads. However, prior to making that decision, the AESO should determine if the proposed ALM provides any benefit to loads.
4.	Do you have any concerns or suggestions on Adjustment for Load on the Margin engagement process and timeline?	The AESO should assess the usefulness of the ALM, given the comments above. The AESO should then use this new understanding of industrial load processes to redevelop ALM to make it useful for consumers.
5.	Do you have any other suggestions or comments you would like to share with the AESO related to the Adjustment for Load on the Margin stakeholder session or the engagement activities?	No comment.



Period of Comment:	April 15, 2021 through April 30, 2021	Contact:
Comments From:	Suncor Energy Inc.	Phone:
Date:	2021/04/30	Email:

Instructions:

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	Questions	Stakeholder Comments
1.	Do you agree that Adjustment for Load on the Margin should be pursued further? Please explain.	Suncor does not oppose the AESO pursuing ALM further.
2.	Do you have any comments on Adjustment for Load on the Margin eligibility? Do you agree with the recommendation that the adjustment should be based on bid? Is there anything the AESO has not considered? Please explain.	Suncor supports the eligibility criteria laid out by the AESO on slide 24 of the presentation. Suncor disagrees with the recommendation to base the adjustment on the market participants bid. Any <i>pay-as-bid</i> component is fundamentally misaligned with the clearing price market model in Alberta. Suncor believes that the AESO overstates the <i>over-consumption</i> concern and should be more concerned about the distortive effect a bid-based adjustment has on bidding behaviour and consequently price fidelity for the entire market. See #5 for fairness considerations.
3.	Do you have any comments on how Adjustment for Load on the Margin cost should be allocated? Is there anything the AESO has not considered? Please explain.	Suncor believes that the AESO is unnecessarily focused on the hour in which ALM is paid. Both ALM and payments to suppliers on the margin (PSM) are administrative measures to correct for concerns arising from the hourly settlement interval. These costs should be negligible compared to the savings achieved from not moving to a shorter settlement interval. Suncor recommends that the total costs for ALM are recovered via the pool trading charge. See #5 for fairness considerations.

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4.	Do you have any concerns or suggestions on Adjustment for Load on the Margin engagement process and timeline?	Suncor has no concerns regarding the engagement process and timeline.
5.	Do you have any other suggestions or comments you would like to share with the AESO related to the Adjustment for Load on the Margin stakeholder session or the engagement activities?	Suncor agrees with the AESO that ALM should mirror PSM. However, the appropriate way of doing this is by correcting mistakes made with regard to PSM and not by creating further distortions to the market. As such:
		• PSM should not be <i>pay-as-offered</i> and instead be SMP based (see #2)
		<ul> <li>PSM costs should not be recovered from generators in the hour but instead be recovered as an administrative cost through the pool trading charge (see #3)</li> </ul>



Period of Comment:	April 15, 2021 through A	April 30, 2021	Contact:
Comments From:	TransAlta Corporation		Phone:
Date:	2021/04/26		Email:

Instructions:

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	Questions	Stakeholder Comments
1.	Do you agree that Adjustment for Load on the Margin should be pursued further? Please explain.	TransAlta agrees that the AESO should continue to explore Adjustment for Load on the Margin (ALM) as part of a bigger strategy of incentivizing energy storage participation in the market.
		During the sub-hourly settlement market initiative TransAlta suggested that the AESO should explore the use of Payments for Loads on the Margin, which requires the enablement of full range market participation. TransAlta welcomes the AESO's ALM initiative and appreciates the hard work put into the presentation, as well as sharing it in advance of the session.
		With the mirroring of the design of payments to suppliers on the margin (PSM), TransAlta agrees that the proposed ALM design addresses the principles of fairness, efficiency, and competition. TransAlta concurs that the implementation of ALM would enable the development of new flexible technologies such as energy storage. Energy storage is more likely than other loads to bid into the market because it is highly price sensitive and can respond quickly to a dispatch. Moreover, because energy storage resources are solely dedicated to the delivery of electricity products (i.e. energy and operating reserves) they have fewer constraints than other industrial loads.

		The ALM consultation should closely align with the discussion and development of energy storage rules recently announced by the AESO. The AESO indicated that the development of ISO Rules related to ALM will be completed as part of the energy storage long-term implementation; however, it did not provide any specific details about the treatment of energy storage. The AESO's
		presentation only provided general observations about energy storage and competition (i.e. ALM will allow energy storage participation, therefore increasing competition). We request the AESO to clarify the eligibility of energy storage assets, including stand-alone assets, hybrid assets or co-located assets for ALM.
2.	Do you have any comments on Adjustment for Load on the Margin eligibility? Do you agree with the recommendation that the adjustment should be based on bid? Is there anything the AESO has not considered? Please explain.	The proposed eligibility criteria as adjustments based on bid should be consistent with Payments to Suppliers on the Margin (PSM).
		The proposal mirrors PSM and proposes similar treatment regarding price, settlement, and cost recovery. To be eligible for ALM, sink assets must bid into the energy market, and comply to dispatches and directives. This obligation is the same as those of source assets that offer and receive PSM.
3.	Do you have any comments on how Adjustment for Load on the Margin cost should be allocated? Is there anything the AESO has not considered? Please explain.	TransAlta recommends the AESO follows the cost causation and fairness principles to establish cost allocation.
		Section 11 of ISO Rule 103.4 allocates PSM charges to any pool participant with energy consumption during the same settlement interval. To be consistent, ALM should follow the same cost allocation method used for PSM.
4.	Do you have any concerns or suggestions on Adjustment for Load on the Margin engagement process and timeline?	TransAlta recommends the AESO continues working with stakeholders in identifying the unique aspects of energy storage and develop rule changes that allow for full range participation in the energy market.
		TransAlta is actively participating in the Energy Storage initiatives and welcomes alternatives such as ALM that incentive energy storage participation in the energy and ancillary markets.
5.	Do you have any other suggestions or comments you would like to share with the AESO related to the Adjustment for Load on the Margin stakeholder session or the engagement activities?	No additional suggestions or comments at this time.

Thank you for your input. Please email your comments to: <a href="mailto:stakeholder.relations@aeso.ca">stakeholder.relations@aeso.ca</a>