Stakeholder Comments and AESO Replies Matrix

Proposed New Section 207.3 of the ISO Rules, *Shape of Demand Curve*

Date of Request for Comment:	October 26, 2018		
Period of Comment:	October 26, 2018	through	November 14, 2018

Stakeholder Comments and/or Proposed Alternative Rule Wording	AESO Replies
Establish Preliminary Demand Curve **Subsection 2(1)**	
Capital Power Corporation ("Capital Power") Capital Power believes that the term "demand curve" should be a defined term, see proposed definition to the left. New definition: "demand curve" means a downward sloping curve that represents consumers' willingness to buy different levels of uniform capacity as a function of price. The demand curve is used in the base and reconfiguration auctions.	The AESO uses defined terms to provide a consistent meaning to terms that are industry specific or not commonly understood across the ISO rules. The AESO is of the view that "demand curve" does not require a definition because it is defined by the parameters in Section 207.3 and varies from auction to auction as well as between the preliminary and final renditions.
Solas Energy Consulting on behalf of the Renewable Energy Coalition ("Solas") The Coalition would like further details on the analysis used to determine the price cap, the inflection point and the foot of the demand curve. In particular, the Coalition would like details on the supply curve that is used in the analysis. The Coalition is concerned that the supply curve is not appropriate for the current Alberta context and may contribute to procurement of more capacity than is optimal.	During the CMD design process, the AESO presented three candidate demand curves and discussed the parameters of each curve with the Demand Curve Working Group. The tradeoffs between the different candidates and the AESO's rationale for selecting the final demand curve shape are summarized in section 4.4 of the CMD Final Rationale. Please refer to the Demand Curve Working Group materials on the AESO website and the CMD Final Rationale for further information. On November 1, 2017 and June 14, 2018, Brattle presented its supply curve analysis to the Adequacy and Demand Curve Working Group and Demand Curve Working Group respectively. Please refer to the June 14, 2018 Demand Curve Shape presentation and the Session summary from the June 14, 2018 session on the AESO website. The supply curve simulated in the analysis is appropriate as it is premised on economic theory of rational entry and exit of capacity from the market and relies on outcomes of actual capacity auctions outcomes in other jurisdictions to approximate required parameters.

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Utilities Consumer Advocate ("UCA") Subsection 2(1)(a)(ii) refers to "the performance factor in subsection 4(iii)" of Section 207.3. The UCA believes that this reference is incorrect, and should be corrected to 4(c).	The AESO will correct the numbering reference in Proposed Section 207.3.
Subsection 2(2)	
Capital Power Corporation ("Capital Power") As can be inferred from CMD Final and the last set of materials presented by Brattle on June 14, 2018, Brattle performed all the demand curve performance analysis based on gross capacity and more specifically before netting out self-supply and REP volumes. It is unclear if it was done before or after converting other assets MCs to uniform capacity values. Based on the demand rule (Section 207.3) as written, the demand curve shape can change drastically depending on the amount of self-supply and final uniform capacity selected by market participants (the latter within minimum and maximum ranges provided by the AESO). Brattle's analysis shows a demand curve with a width (max – min volumes) of around 2000 UCAP MW, while a demand curve that nets out the expected self-supply and REP as reported by the AESO, results in a demand curve width of about 1600 UCAP MW. Once converted to MC, this UCAP difference amounts to a significant 500 MW in demand curve width difference, implying different demand curve shapes as a result of only changing how self-suppliers decide to be treated but with no material change to the Alberta electric system and reliability as modeled by Brattle. The width and consequently the shape are also at the mercy of whether market participants choose uniform capacities values generally at the upper or lower ranges to be provided by the AESO which were ignored in Brattle's demand curve analysis. Consequences: • Although Capital Power does not agree with Brattle's tuning methodology of the demand curve and thinks that the risk of under-procurement is overstated in their analysis, leading to a bias toward over-procurement. Brattle and the AESO have not provided sufficient information to demonstrate that the gross analysis yields the same results after netting self-supply and REP, specifically, that the different width demand curves would yield the same reliability results of breaching the minimum reliability requirement of 0.0011% EUE 5% of the time. • The RAM, as well as Brattle analyses, have been performed for the entire Alberta system. It is difficult to understand how the desirable reliability portrayed by the demand curve would change	The demand curve analysis performed by Brattle ("Brattle Analysis") was completed on a gross basis using preliminary estimates of uniform capacity values. Modelling on a gross basis allowed AESO to understand total system needs for capacity and allowed market participants the flexibility to meet their own capacity needs should they chose to do so. The AESO agrees that the demand curve shape will change with the level of self-supply and is of the view that this is appropriate because a lower net procurement volume should result in a more narrow curve. The translation from the gross minimum procurement volume to the net minimum procurement volume, through the application of the formula in subsection 3(2) in Proposed Section 207.3, *Shape of Demand Curve*, will result in the continuous treatment of capacity needs and supply across the translation. The use of the uniform capacity value methodology for self-supply in Proposed Section 206.3, *Uniform Capacity Value Determination* and the translation formula in subsection 3(2) in Proposed Section 207.3, *Shape of Demand Curve* will consistently adjust the demand and supply curves to align the procurement volumes and the demand curve shape with varying self-supply levels. The Brattle Analysis and shared through the Adequacy and Demand Curve Working group and the Demand Curve Working Group closely aligns with what Capital Power has suggested as an alternate analysis.

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based on self-supplier choices when the modeling of the underlying physical AB system remained the same. Further explanation from the AESO is required. • Since it is currently unknown how much onsite generation will select self-supply and what final uniform capacity values generators will select in the end, stakeholders cannot assess the performance (including reliability) of the final demand curve. At the extremes, one demand curve may suggest over-procurement while another under-procurement. One way to overcome the potential errors in translating the Brattle analysis and the performance uncertainty around the demand curve is to not net out self-supply and REP from the demand curve but to add their volumes at a price of zero on the supply side. Depending on how Brattle performed its initial analysis, an adjustment for discrepancies in selection of uniform capacity values may also be done on the supply side if at all required. *New subsection 2(4): To ensure that parameters in subsection 2(1) are optimal, the AESO will evaluate the performance of the demand curve at different net minimum procurement levels as described in subsection 3. The evaluation will ensure that the performance of the net demand curve is the same as the performance of the tuned demand curve produced by the Brattle Group at the gross level.*	
Alberta Federation of Rural Electrification Associations ("AFREA") Section 2(2) is missing.	The AESO will correct the numbering reference in Proposed Section 207.3.
Net Minimum Procurement Volume **Subsection 3(1)**	
Capital Power Corporation ("Capital Power") Capital Power believes that the term "net minimum procurement volume" should be a defined term, see proposed definition to the left. This definition helps understand the translation of the gross minimum procurement volume to the final demand curve. New definition: "net minimum procurement volume" means the gross minimum procurement	The AESO uses defined terms to provide a consistent meaning to terms that are industry specific or not commonly understood across the ISO rules. The AESO is of the view that "net minimum procurement volume" does not require a definition because it is a specific value that is defined by the application of the formula in subsection 3(2), which varies from auction to auction.

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volume adjusted according to fungible uniform capacity value. The net minimum procurement volume is used in the demand curve.	
Alberta Federation of Rural Electrification Associations ("AFREA") This does not indicate what uniform capacity values are being assessed here. This section seems to reflect some sort of adjustment from gross to net. However, it is not clear what that adjustment is. Further it is not clear how the net minimum procurement volume will be fundamentally different in section 3(2) from that calculated in section 2(3) Section 3(2) (b) makes no mention of reliability or adequacy limits. That is it does not indicate how the minimum procurement volume will be established.	Subsection 3(1) refers to the uniform capacity values for assets modelled in the resource adequacy model that are calculated in accordance with Section 206.3 of the ISO rules, *Uniform Capacity Value Determination*. AFREA is correct that subsection 3(1) translates the gross minimum procurement volume to a net volume. The gross minimum procurement volume determined in accordance with Section 207.1 of the ISO rules, *Gross Minimum Procurement Volume*, which takes into consideration the Government of Alberta's resource adequacy standard, must be to be translated into a uniform capacity (UCAP) value to align with the measure of capacity that the capacity market is selling. The formula in subsection 3(1) adjusts the maximum capability of each asset modelled in the resource adequacy model to a uniform capacity value, as well as adjusts the procurement volume for self-supply assets from gross to net volumes.
The Cogeneration Working Group ("CWG") The calculation of the minimum procurement volume must use the final amounts. *Proposed to delete "calculated by the ISO" and replace with "as finalized following the dispute resolution process with the Commission."*	The AESO does not agree with the change proposed by the CWG. At the time the preliminary demand curve is established, the AESO will not have the final uniform capacity values of the assets modelled in the resource adequacy model for the relevant obligation period. Therefore, the AESO will use the most recent uniform capacity values declared or assigned to the asset for the obligation period to estimate the net procurement volume. The AESO will consider ways to make this more clear in subsection 3(1), or the associated Information Document.
Subsection 3(2)	
Capital Power Corporation ("Capital Power") To ensure fairness and validity of the additive function in subsection 3(2), the AESO should validate the consistency of the contribution of assets to reliability between the RAM model and the assigned uniform capacity values in Section 206.3 of the ISO rules. New subsection 3(3): To ensure the validity of the formula in subsection 3(2), the AESO must	The AESO does not agree with change proposed by Capital Power. The methodologies for calculating uniform capacity value for different assets is to estimate the fungibility of resource adequacy contribution across assets. The formula in 3(2) is relying on the methodologies for determining uniform capacity values in Proposed Section 206.3, *Uniform Capacity Value Determination* to ensure that the procurement volume

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perform analyses that demonstrates fungibility among uniform capacity values of different assets as it relates to their contribution to reliability in the probabilistic or RAM model.	in the demand curve are of the same measure as the supply being offered in the capacity market.
Adjusted Net-CONE **Subsection 4**	
Alberta Federation of Rural Electrification Associations ("AFREA") Nowhere is the performance factor of .8 defined or referred to in the Comprehensive Market Design Final proposal. This factor essentially increases the price cap by 25% compared to the cap defined in section 4.4.2(c) of the Comprehensive Market Design Final proposal. This factor should be removed as there is no justification for it. It is not clear how the final demand curve differs materially from the preliminary one. When will the preliminary demand curve and final demand curve be issued?	The 0.8 performance factor within the formula in subsection 4 is the performance factor of the reference technology and is based on the historical class average of Aero derivative plants in Alberta. This performance factor is needed to convert the net-CONE value, calculated in accordance with Section 207.2 of the ISO rules, *Calculation of Net-CONE*, from $/kW of installed capacity (ICAP) to $/kW of uniform capacity (UCAP). Please refer to section 4.4.1(b) of the CMD Final Proposal. The AESO discussed the 0.8 value with the stakeholders at the AESO's consultation session for the Set 3 rules on September 13, 2018. Please see the AESO's September 13, 2018 presentation "Demand Curve Rules Set 3 Consultation Session" available on the AESO website. The AESO is developing and releasing a preliminary demand curve to inform capacity market participants of the size and pricing expectation for the applicable auctions and provide capacity market participants with information to support their auction decisions, such as qualification, delisting, and offer expectations. The preliminary demand curve includes an estimate of the net minimum procurement volume because uniform capacity values of the assets modelled in the resource adequacy model are finalized for the obligation period later in the pre-auction process. The final demand curve for the applicable auction takes into account the final uniform capacity values in the net minimum procurement volume. The AESO will provide details about the difference between the preliminary demand curve and the final demand curve in the associated Information Document. In accordance with subsection 2(3), the preliminary demand curve will be released in the Capacity Market Auction Guidelines, which must be published no later than 8 months prior to the auction. The final demand curve will be released after final uniform capacity values have been assigned or declared pursuant to Section 206.3 of the ISO rules, Uniform Capacity Value Determination. The AESO will release further details on the form and timing for the publication of the final demand curve at a later date.

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Capital Power Corporation ("Capital Power") Since the performance factor of the reference technology is expected to change over time, the rule should reference the latest calculation of the performance factor instead of referencing 0.8 to avoid under or over-procurement in any deliverability period. 4(1)(c) performance factor is equal to the most recent calculation of the expected performance factor of a new plant, represented by the reference technology~~0.08~~	The AESO does not agree with the changes proposed by Capital Power. The performance factor for the reference technology is embedded as a numerical value within the formula in subsection 4 to decrease volatility in net-CONE and increase certainty to the market about the derivation of the net-CONE value. The performance factor will be consulted on and updated with the demand curve review cycle.
The Cogeneration Working Group ("CWG") 4(c) performance factor is equal to 0.8. Average annual performance in Rule 207.3 is 91%, yet the same statistic is listed as 80% in this rule. These should be consistent across the two rules. Further, the number should be representative of the average annual performance of new aero derivatives, i.e. what would be given as a class average UCV to a new aero derivative if it was built today.	In Proposed Section 206.3, *Uniform Capacity Value Determinations*, the AESO makes a performance factor adjustment to new loads by assuming a 91% performance factor. The 0.8 performance factor within the formula in subsection 4 is representative of the average annual performance factor of an aero derivative as it is based on the historical class average of aero derivative plants in Alberta.
Industrial Power Consumers Association of Alberta ("IPCAA") It is still not clear to IPCAA why it is necessary in the Adjusted Net-CONE to have a performance factor of 0.8. This effectively raises the capacity cost. Can the AESO explain the value to ratepayers? The performance factor in 4. Adjusted Net-CONE should be determined annually by the AESO in consultation with stakeholders, rather than simply be stated as a fixed number of 0.8. *4 (c)* performance factor is equal to **X, determined annually by the AESO in consultation with Stakeholders.**	The AESO does not agree that the performance factor raises capacity costs. The adjustment is required so that the adjusted net-CONE used in the final demand curve is an appropriate representation of the cost of new entry on a uniform capacity basis. If the adjustment is not made then the market parameters will be systematically underestimating the costs for the reference unit. Please refer to the AESO's reply to AFREA's comment on subsection 4 above for further rationale for the 0.8 performance factor. The AESO does not agree with the change proposed by IPCAA for subsection 4(c). Please refer to the AESO's reply to Capital Power's comment on subsection 4 above.
TransAlta Corporation (TransAlta") The formula should be revised to remove hardcoded values and allow for updates through the Consolidated Authoritative Document Glossary, as indicated in our recommended changes to the rule language in yellow highlighted text. As stated in our comments to subsection 2(2) above, Section 207.3 should be drafted to be a permanent rule, while numerical variables that require periodic review and update should be handled through	The AESO does not agree with the changes proposed by TransAlta. Please see the AESO's replies to TransAlta's comment on subsection 9(2) in the AESO's Replies to Proposed Section 206.1, *Qualification of Capacity* matrix.

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changes to the Consolidated Authoritative Document Glossary. Therefore, we have proposed that add new terms that can be easily changed through amendments to the definitions in the Consolidated Authoritative Document Glossary. **4** The **ISO** must, using the following formula, adjust the net-CONE established for each **obligation period** in accordance with Section 207.2 of the **ISO rules**, *Calculation of Net-CONE*: $$adjusted\ net\text{-}CONE_t = \frac{net\text{-}CONE_t}{performance\ factor}$$ where: (a) *t* equals the **obligation period** for which the adjusted net-CONE value is being determined; (b) *net-CONE* $_t$ is net-CONE value established in accordance with Section 207.2 of the **ISO rules**, *Calculation of Net-CONE* in $/kW-year; and (c) *performance factor* is a defined term in the *Consolidated Authoritative Document Glossary* ~~equal to 0.8~~.	
Establish Final Demand Curve for Base Auction and Rebalancing Auction **Subsection 5(1)**	
Alberta Federation of Rural Electrification Associations (“AFREA”) Nowhere is the performance factor of .8 defined or referred to in the Comprehensive Market Design Final proposal. This factor essentially increases the price cap by 25% compared to the cap defined in section 4.4.2(c) of the Comprehensive Market Design Final proposal. This factor should be removed as there is no justification for it.	Please refer to the AESO’s reply to AFREA’s comment on subsection 4 above.
Subsection 5(2)	
Capital Power Corporation (“Capital Power”) *5(2) The ISO must publish the final demand curve at least two months prior to the opening of the offering window for each base auction or rebalancing auction.*	Please see the AESO’s reply to TransAlta’s comment on subsection 5(2) below.

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More detailed should be indicated of what “prior” means. A reasonable amount of time should be provided for market participants to prepare their analyses, bidding and delists before the start of the auction. Capital power suggests that the demand curve should be published two months before the offering window.	
TransAlta Corporation (TransAlta”) The AESO should be required to publish the final demand curve at least 1 month prior to each base auction or rebalancing auction, as indicated in our recommended changes to the rule language in yellow highlighted text. Subsection 5(2) should specify a minimum deadline that the AESO must publish the final demand curve by. The final demand curve is important information for capacity market participants to know ahead of the auctions in order to structure their offers and ensure competitive outcomes and should be received as soon as it is finalized. 5(2) The **ISO** must publish the final demand curve a minimum of 1 month prior to the opening of the offering window for each **base auction** or **rebalancing auction.**	The AESO agrees with the change proposed by TransAlta. The AESO will revise subsection 5(2) of Proposed Section 207.3 accordingly.
Applicable Auctions **Subsection 6**	
Capital Power Corporation (“Capital Power”) Subject to the AUC’s further consultation and amendments to AUC Rule 017 on application of ISO rules that pertain to the demand curve and related elements of the capacity market, the rule should provide the governance framework and stakeholder consultation process including timelines that the AESO will follow to develop the subsequent set of rules. Also, subject to the AUC Rule 017 amendments, the ISO rules should specify the requirements and process that the AESO will follow to update the load forecast, net minimum procurement volume, net CONE and demand curve between each of the obligation periods described in this subsection 7. The timelines, information to be disclosed by the AESO and engagement process should be specified for the	Please see the AESO’s reply to Capital Power’s comment on subsection 7 in the AESO’s Replies to Proposed Section 207.1, *Gross Minimum Procurement Volume*.

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main and rebalancing auctions.	
TransAlta Corporation (TransAlta") Section 207.3 should be a permanent rule and should not be specified to only apply for the first four obligation periods – therefore, this section should be removed, as indicated in our recommended changes to the rule language in yellow highlighted text. The content of Section 207.1 should be a permanent ISO Rule and should not be applied as a fixed period rule. We note that this applicability language was likely included because the rule language originally included periodically changing numerical values. However, if the entire ISO Rule is periodically reopened to update changing variables, the CMD will lack the necessary permanency to remove regulatory uncertainty and enable private investment, which would increase investment risk and, in turn, raise costs to consumers. The concern over the periodically changing value could be addressed by including the terms and their associated values in the Consolidated Authoritative Document Glossary, as indicated in our recommended changes to the rule language above. ~~**Applicable Auctions**~~ ~~6 This Section 207.3 is in effect for the following auctions:~~ ~~(a) the base auction and rebalancing auction for the 2021/2022 obligation period;~~ ~~(b) the base auction and rebalancing auction for the 2022/2023 obligation period;~~ ~~(c) the base auction and rebalancing auction for the 2023/2024 obligation period; and~~ ~~(d) the base auction and rebalancing auctions for the 2024/2025 obligation period.~~	The AESO does not agree with the change proposed by TransAlta. Please see the AESO's reply to TransAtla's comment on subsection 7 in the AESO's Replies to Proposed Section 207.1, *Gross Minimum Procurement Volume*.

Please provide your comments on the following (as set out in AUC Rule 017 s. 13(b-j)):

Item #		Stakeholder comments	AESO Replies
1	whether you agree that Section 203.7 of the ISO Rules, *Shape of Demand Curve* relates to the capacity market and why or why not	Alberta Federation of Rural Electrification Associations ("AFREA") See below	
		Industrial Power Consumers Association of Alberta ("IPCAA") It is still not clear to IPCAA why it is necessary in the Adjusted Net-CONE to have a performance factor of 0.8. This effectively raises the capacity cost. Can the AESO explain the value to ratepayers?	Please refer to the AESO's reply to IPCAA's comment on subsection 4 above.
		Utilities Consumer Advocate ("UCA") Yes, the demand curve is a key part of the capacity market and procurement of capacity.	The AESO acknowledges UCA's comment.
		Capital Power Corporation ("Capital Power") Capital Power agrees that the proposed rule relates to the capacity market and, in general, is necessary to determine the appropriate shape of the demand curve	The AESO acknowledges Capital Power's comment.
		TransAlta Corporation (TransAlta") Please see Appendix 1 of TransAlta's submission.	Please see the AESO's replies to Appendix 1 of TransAlta's November 14, 2018 submission in the AESO Replies to TransAlta's Appendix 1 matrix.
2	whether you agree that Section 203.7 of the ISO Rules, *Shape of Demand Curve* should or should not be in effect for a fixed term and why or why not	Alberta Federation of Rural Electrification Associations ("AFREA") See below	
		Industrial Power Consumers Association of Alberta ("IPCAA") A fixed term will work; however, this needs to be re-visited frequently.	Please see the AESO's reply to TransAtla's comment on subsection 7 in the AESO's Replies to Proposed Section 207.1, *Gross Minimum Procurement*

			Volume.
		Utilities Consumer Advocate (“UCA”) The *Shape of the Demand Curve* should be in effect for a fixed term, as the demand curve is a key component to the CMD and necessary to provide certainty.	The AESO acknowledges UCA’s comment.
		Capital Power Corporation (“Capital Power”) Capital Power understands that CONE, net-CONE and the demand curve are proposed to be re-set every 3 or 4 years and therefore agrees with the rationale for prescribing a fixed term for the proposed rule as proposed in subsection 7.	The AESO acknowledges Capital Power’s comment.
		TransAlta Corporation (TransAlta”) Please see Appendix 1 of TransAlta’s submission.	Please see the AESO’s replies to Appendix 1 of TransAlta’s November 14, 2018 submission in the AESO Replies to TransAlta’s Appendix 1 matrix.
3	whether you understand and agree with the objective or purpose of Section 203.7 of the ISO Rules, *Shape of Demand Curve* and whether, in your view, Section 203.7 of the ISO Rules, *Shape of Demand Curve* meets the objective or purpose	Alberta Federation of Rural Electrification Associations (“AFREA”) See below	
		Utilities Consumer Advocate (“UCA”) The UCA understands and agrees with the objective and purpose of this rule and we feel it meets the purpose and objective.	The AESO acknowledges UCA’s comment.
		Capital Power Corporation (“Capital Power”) Capital Power agrees with the overall objective or purpose of the proposed rule which it understands as defining the shape of the demand curve. However, the specific objective of converting the gross minimum procurement volume to net minimum procurement volume is not proven to be achieved according to units of capacity that are equivalent or fungible.	Please refer to the AESO’s reply to Capital Power’s comments on subsection 3(2) above.

		TransAlta Corporation (TransAlta") Please see Appendix 1 of TransAlta's submission.	Please see the AESO's replies to Appendix 1 of TransAlta's November 14, 2018 submission in the AESO Replies to TransAlta's Appendix 1 matrix.
4	how, in your view, Section 203.7 of the ISO Rules, *Shape of Demand Curve* affects the performance of the capacity market and the electricity market	Alberta Federation of Rural Electrification Associations ("AFREA") See below	
		Industrial Power Consumers Association of Alberta ("IPCAA") It is still not clear to IPCAA why it is necessary in the Adjusted Net-CONE to have a performance factor of 0.8. This effectively raises the capacity cost. Is this simply a factor of safety intended to raise the capacity cost? This effectively reduces the value of the calculated net revenue from the Reference Technology.	Please refer to the AESO's reply to IPCAA's comment on subsection 4 above.
		Utilities Consumer Advocate ("UCA") It remains to be seen but the AESO followed a rigorous process and solid analysis to establish the demand curve. The assumptions and analysis should be reviewed and evaluated after the second auction. The AESO excludes dispatch optimization and ancillary service revenues in the Net CONE calculation. This may understate energy market revenues and therefore overstate the required level of Net CONE in the capacity market. Net CONE is used in conjunction with the minimum level of procurement to set the key point "A" in the demand curve. Higher Net CONE levels, all else being equal, increase capacity market prices and the associated cost burden on load customers.	The demand curve rules and parameters, as implemented through ISO rules, will be tested through the Alberta Utilities Commission 6-month and 18-month processes. The AESO noted in its the September 13, 2018 stakeholder consultation session on the Set 3 rules that it expects to revisit the demand curve rules in and around the start of 2022, which is after the base auction for the 2022/2023 obligation period. Dispatch optimization requires a simulation approach, which is not aligned with the AESO's decision to use a forward market methodology in the Comprehensive Market Design. The AESO determined to exclude ancillary service offsets for the 2021/2022 to 2024/2025 period due to a lack of appropriate forward products for the AS market. Please see the AESO's replies to AFREA's comment on subsection 5(1) of in the AESO's Replies to Proposed Section 207.2, *Calculation of Net-CONE* matrix.

		Capital Power Corporation (“Capital Power”) The performance of the demand curve in terms of reliability is subject to the amount of load that chooses self-supply, final chosen levels of uniform capacity, and final non-qualifying volumes. This is because different choices of self-supply and uniform capacity values will result in different demand curve shapes and amounts of total capacity demanded for the system. If different levels of self-supply, REP and uniform capacity values selection require different levels of procurement for the Alberta system, it follows that different levels of uniform capacity values (including different levels of self-supply) should have been modeled in the reliability model (RAM) and Brattle’s demand curve probabilistic simulations, something that was not undertaken. In addition, there would be no reason for increasing or decreasing total demand and the demand curve shape due to market participants selecting generally higher or lower uniform capacity values.	Please see the AESO’s reply to Capital Power’s comment on subsection 2(2) above.
		TransAlta Corporation (TransAlta”) Please see Appendix 1 of TransAlta’s submission.	Please see the AESO’s replies to Appendix 1 of TransAlta’s November 14, 2018 submission in the AESO Replies to TransAlta’s Appendix 1 matrix.
5	your views on any analysis conducted or commissioned by the AESO supporting Section 203.7 of the ISO Rules, *Shape of Demand Curve*	Alberta Federation of Rural Electrification Associations (“AFREA”) See below	
		Utilities Consumer Advocate (“UCA”) See Item #4.	Please see the AESO’s reply to UCA’s comment on question 4 above.
		Capital Power Corporation (“Capital Power”) Analysis is lacking that proves fungibility of uniform capacity values among different resources. It is unclear whether a MW of uniform capacity is equivalent across assets or even across technology types, something that, in principle and for fairness, the AESO should be striving for. The AESO should validate the consistency of the	The AESO does not agree. Please see the AESO’s reply to Capital Power’s comment on subsection 2(2) and 3(2) above.

		contribution of assets to reliability between the RAM model and the assigned uniform capacity values in Section 206.3 of the ISO rules. Additional analyses are required to demonstrate that the net demand curve expressed in uniform capacity value terms, after netting self-supply, has the same performance as the gross demand curve modeled by Brattle, including meeting the adequacy standard 95% of the time.	
		TransAlta Corporation (TransAlta") Please see Appendix 1 of TransAlta's submission.	Please see the AESO's replies to Appendix 1 of TransAlta's November 14, 2018 submission in the AESO Replies to TransAlta's Appendix 1 matrix.
6	whether you agree with Section 203.7 of the ISO Rules, *Shape of Demand Curve* taken together with all ISO rules and in light of the principle of a fair, efficient and openly competitive market	Alberta Federation of Rural Electrification Associations ("AFREA") See below	
		Utilities Consumer Advocate ("UCA") It remains to be seen.	Please see the AESO's reply to UCA's comment on Item #4 above.
		Capital Power Corporation ("Capital Power") To the extent that UCAP is not truly a fungible product, something that has not yet been proven, the capacity market will lack fairness	The AESO acknowledges Capital Power's comment.
		TransAlta Corporation (TransAlta") Please see Appendix 1 of TransAlta's submission.	Please see the AESO's replies to Appendix 1 of TransAlta's November 14, 2018 submission in the AESO Replies to TransAlta's Appendix 1 matrix.
	whether you would suggest any alternatives to Section 203.7 of the ISO Rules, *Shape of*	Alberta Federation of Rural Electrification Associations ("AFREA") See below	

7	*Demand Curve*	Industrial Power Consumers Association of Alberta (“IPCAA”) Suggested Alternative: The performance factor in 4. Adjusted Net-CONE should be determined annually by the AESO in consultation with stakeholders, rather than simply be stated as a fixed number of 0.8.	Please see the AESO’s reply to IPCAA’s comment on subsection 4 above.
		Capital Power Corporation (“Capital Power”) See Capital Power’s comments to the rule above. One way of avoiding affecting the performance of the demand curve as modeled by Brattle is to adjust self-supply and REP volumes on the supply side.	Please see the AESO’s reply to Capital Power’s comment on subsection 2(2) above.
		TransAlta Corporation (TransAlta”) Please see Appendix 1 of TransAlta’s submission.	Please see the AESO’s replies to Appendix 1 of TransAlta’s November 14, 2018 submission in the AESO Replies to TransAlta’s Appendix 1 matrix.
8	whether you agree that the proposed provisional rule supports ensuring a reliable supply of electricity at a reasonable cost to customers and why or why not	Alberta Federation of Rural Electrification Associations (“AFREA”) See below	
		Industrial Power Consumers Association of Alberta (“IPCAA”) It is not clear whether the performance factor adjustment is a reasonable cost.	Please see the AESO’s reply to IPCAA’s comment on subsection 4 above.
		Utilities Consumer Advocate (“UCA”) Yes, we generally agree but it should be checked after the AESO gains some experience in the capacity market.	The AESO acknowledges UCA’s comment
		Capital Power Corporation (“Capital Power”) The uncertainty posed by different self-supply and uniform capacity opted levels and non-qualified volumes on the shape of the demand curve makes it difficult for stakeholders to assess whether the rule	Please see the AESO’s reply to Capital Power’s comment on subsection 2(2) above.

		supports reliable supply of electricity at a reasonable cost.	
		TransAlta Corporation (TransAlta") Please see Appendix 1 of TransAlta's submission.	Please see the AESO's replies to Appendix 1 of TransAlta's November 14, 2018 submission in the AESO Replies to TransAlta's Appendix 1 matrix.
9	whether you agree that the proposed provisional rule supports the public interest and why or why not	Alberta Federation of Rural Electrification Associations ("AFREA") See below	
		Industrial Power Consumers Association of Alberta ("IPCAA") The performance factor in 4. Adjusted Net-CONE should be determined annually by the AESO in consultation with stakeholders, rather than simply be stated as a fixed number of 0.8. Using a fixed factor without any annual ability to review it is not in the public interest	Please refer to the AESO's reply to IPCAA's comment on subsection 4 above.
		Utilities Consumer Advocate ("UCA") Yes, the rule should provide a reasonable demand curve which is a key component in making the capacity market function properly.	The AESO acknowledges UCA's comment
		Capital Power Corporation ("Capital Power") Capital Power has no comments at this time.	The AESO acknowledges Capital Power's comment.
		TransAlta Corporation (TransAlta") Please see Appendix 1 of TransAlta's submission.	Please see the AESO's replies to Appendix 1 of TransAlta's November 14, 2018 submission in the AESO Replies to TransAlta's Appendix 1 matrix

10	whether you have any additional comments	Utilities Consumer Advocate (“UCA”) Subsection 2(1)(a)(ii) refers to “the performance factor in subsection 4(iii)” of Section 207.3. The UCA believes that this reference is incorrect, and should be corrected to 4(c).	The AESO will correct the numbering error in Proposed Section 207.3.
		Alberta Federation of Rural Electrification Associations (“AFREA”) AFREA continues to review the voluminous comments from other stakeholders and, as such, refrains from any final position on this proposed rule. AFREA reserves the right to comment in further proceedings or processes about this or other ISO rules, and its impact on consumers in general and REA members specifically. Where applicable, AFREA comments upon the rationale of its changes which, in its view clarify the rule, align it more closely to the public interest, provide for greater reliability at a more reasonable cost, clarify the implementation of the capacity market, or a combination therein. In AFREA’s view, the public interest includes a balance between reliable supply of electricity with a reasonable cost to consumers.	The AESO acknowledges AFREA’s comment.
		Capital Power Corporation (“Capital Power”) Capital Power has no comments at this time.	The AESO acknowledges Capital Power’s comment.
		TransAlta Corporation (TransAlta”) Please see Appendix 1 of TransAlta’s submission.	Please see the AESO’s replies to Appendix 1 of TransAlta’s November 14, 2018 submission in the AESO Replies to TransAlta’s Appendix 1 matrix