CMD Final Industry Stakeholder Comment Matrix

The AESO invites stakeholders to provide comments on the final Comprehensive Market Design (CMD Final). All feedback (whether it be general or specific in nature) will assist in the development of the suite of ISO rules for the implementation of the capacity market. With respect to comments provided in relation to the "Specific Feedback Questions", please note that your responses will also help to inform future consultation activities, including the topics to be discussed during upcoming stakeholder sessions expected to be planned for the end of July/early August.

Please review the instructions below and submit your feedback to capacitymarket@aeso.ca no later than 3:00 p.m. on Friday, July 20, 2018.

The AESO will post all feedback "as received" on www.aeso.ca by Wednesday, July 25, 2018. Please note that the names of the parties submitting each completed comment matrix will be included in this posting. Please also note that the AESO will not be responding to individual submissions.

Instructions

- Stakeholders are requested to provide all feedback on CMD Final within this matrix.
  - if it is believed necessary to submit additional supporting documentation, please clearly indicate which section of CMD Final or topic your document refers to. No handwritten comments will be accepted.

- Please input your name and the organization you are representing in the comment boxes provided below each CMD Final section. Your contact information is requested in each section for ease of sorting and compiling feedback from all stakeholders.
  - Press Shift + Return to enter paragraph breaks within a comment box.
  - Comment boxes will automatically expand if additional room for feedback is required.

If you have any questions about this comment matrix, please email capacitymarket@aeso.ca

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CMD Final Glossary

1) *Which, if any, of the defined terms in the glossary do you find vague, confusing, or unnecessary? Please identify each defined term and explain how it may be improved.*

   Definition as per AESO CMD 4.0 Glossary-Temporary delist request- means a request to remove a prequalified capacity asset (or a portion of the asset) from the capacity, energy, and ancillary services market for an obligation period due to physical or economic reasons.

   The UCA would like the AESO to provide examples of how of a 'portion of a capacity asset' could be delisted. Would this be the same as a having a long term derate on a generating unit?

   On July 10, 2018, the AESO released a presentation titled: Market Transition Industry Stakeholder Session. On page 9 it is stated that, "A capacity committed asset with positive availability volume throughout the obligation period will be eligible to receive an over-availability payment adjustment, to be wholly funded from the unavailability adjustments received from those assets with negative availability volumes." The UCA finds the use of "positive availability volume" and "negative availability volume" confusing, as the terms are not formally defined within the glossary. We prefer the use of terminology such as available/unavailable capacity when discussing availability payment adjustments since they have been appropriately defined.

   What gaps or disconnects may exist as between the glossary and the sections of CMD Final? Please identify any relevant terms, definitions, and/or specific content in CMD Final.

   N/A

2) *Which, if any, of the definitions in the glossary contradict the AESO's current Consolidated Authoritative Document Glossary? Please identify each term and corresponding definition, and describe the concern.*

   N/A

3) *Which terms, if any, do you believe are missing from the glossary? Please provide each term that is missing and suggest an appropriate definition.*

   N/A

4) *Do you have any other feedback specific to the glossary that you would like to provide?*

   N/A.

Name: Douglas Simpson and Nola Ruzycki Organization: Utilities Consumer Advocate

CMD Final Section 2: Supply Participation

GENERAL FEEDBACK QUESTIONS

1) *Please provide your feedback as to whether the design in this section meets the desired end state and criteria set out for Alberta's capacity market design?*

   Yes, the design in this section meets the desired end state and criteria set out for Alberta's CMD.

2) *Which, if any, of the concepts or details discussed in this section are unclear or confusing? What should be added or clarified in the ISO rules to address this?*

   N/A.

3) *What gaps or disconnects may exist in this section? What should be added or clarified in the ISO rules to address this?*

   N/A.

4) *In addition to 2) and 3) above, what other factors or information should the AESO consider as it drafts the ISO rules for this section?*

   N/A.

SPECIFIC FEEDBACK QUESTIONS

The AESO is also specifically requesting feedback on the following question(s):

1) *Is the description of the required thresholds to be classified as a refurbished asset clear? What additional considerations or further detail may be required, regarding the determination of these thresholds?*

   This is clear.

2) *Is the description of the mechanics of making refurbishment offers and the associated market clearing mechanism clear? If not, please explain.*

   Yes it is clear.

   What additional considerations or further detail may be required regarding the conditions under which temporarily delisted assets can return to service during an obligation period?

   N/A

ADDITIONAL COMMENTS

Please add any additional comments you may have on this section here.

Name: Douglas Simpson and Nola Ruzycki Organization: Utilities Consumer Advocate

CMD Final Section 3: Calculation of UCAP

GENERAL FEEDBACK QUESTIONS

1) *Please provide your feedback as to whether the design in this section meets the desired end state and criteria set out for Alberta's capacity market design?*

   No, the UCA believes the UCAP design inappropriately discounts the UCAP value for the majority of generators. This could inadvertently distort price signals and thereby increase costs to consumers. The UCA believes the best alternative is to allow the generators to self-determine their own UCAPs but be fined with heavy penalties should they overstate their capacity and fail to deliver.

2) *Which, if any, of the concepts or details discussed in this section are unclear or confusing? What should be added or clarified in the ISO rules to address this?*

   N/A

3) *What gaps or disconnects may exist in this section? What should be added or clarified in the ISO rules to address this?*

   N/A

4) *In addition to 2) and 3) above, what other factors or information should the AESO consider as it drafts the ISO rules for this section?*

   N/A

SPECIFIC FEEDBACK QUESTIONS

1) *Is the regression-based approach to determining UCAP for gross dispatched self-suppliers clear? What additional considerations or further detail may be required, to sufficiently describe this approach?*

   Yes, the regression-based approach is clear.

2) *What additional considerations or further detail may be required regarding the process for determining external resource UCAPs?*

   If the self-suppliers want to elect a UCAP within a range of the AESO calculated UCAP as per Section 3.1.4 in the proposal documents, the range may be too limited for self-suppliers.

   In the Net UCAP versus Gross UCAP graph (Section 3.1.9, page 7 of the Rationale), at a Gross UCAP of 65 MW, the resulting Net UCAP would be 35 MW as per the slope of the line. Yet the majority of the data points are above 35 MW and one goes as high as 45 MW suggesting that the AESO should anticipate a number of UCAP disputes with self-suppliers?

3) *What additional considerations or further detail may be required regarding the UCAP refinement process?*

   The UCA believes that there should be a cost associated with the dispute process to deter firms from always disputing their UCAP and delaying the AESO from finalizing the UCAP in each bidding time period.

4) *Should the list of events under which a refinement request can be submitted as provided in section 3.2.2.a.i be further defined? If so, please provide your suggestions.*

ADDITIONAL COMMENTS

Please add any additional comments you may have on this section here.

Name: Douglas Simpson and Nola Ruzycki Organization: Utilities Consumer Advocate

CMD Final Section 4: Calculation of demand curve parameters

GENERAL FEEDBACK QUESTIONS

1) *Please provide your feedback as to whether the design in this section meets the desired end state and criteria set out for Alberta's capacity market design?*

   The UCA supports the general shape of the Demand Curve.

2) *Which, if any, of the concepts or details discussed in this section are unclear or confusing? What should be added or clarified in the ISO rules to address this?*

   N/A

3) *What gaps or disconnects may exist in this section? What should be added or clarified in the ISO rules to address this?*

   N/A

4) *In addition to 2) and 3) above, what other factors or information should the AESO consider as it drafts the ISO rules for this section?*

   N/A

ADDITIONAL COMMENTS

Please add any additional comments you may have on this section here.

Please clearly indicate that the 18% foot also includes self-supply. This will help avoid any confusion as to why the foot was moved to 18% from the previous 13%. The shocks from self-supply is captured by right shifting the demand curve. It would be beneficial to see both the proposed demand and right shifted curves side by side for illustration purposes so that is easier to grasp the before and after changes to the demand curve. To incorporate the topic of supply and demand shocks and where the convex demand curve lies, it would be beneficial for participants to visually see the convex demand curve so that stakeholders understand the placement of the kink and foot. See orange line overlaid in between the shocks.

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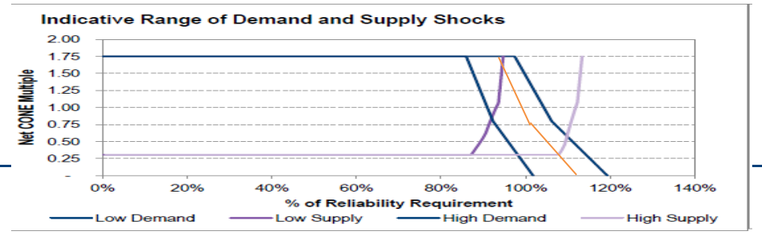

Name: Douglas Simpson and Nola Ruzycki Organization: Utilities Consumer Advocate

CMD Final Section 5: Base auction

GENERAL FEEDBACK QUESTIONS

1) *Please provide your feedback as to whether the design in this section meets the desired end state and criteria set out for Alberta's capacity market design?*

   Yes.

2) *Which, if any, of the concepts or details discussed in this section are unclear or confusing? What should be added or clarified in the ISO rules to address this?*

   N/A

3) *What gaps or disconnects may exist in this section? What should be added or clarified in the ISO rules to address this?*

   N/A

4) *In addition to 2) and 3) above, what other factors or information should the AESO consider as it drafts the ISO rules for this section?*

   N/A

ADDITIONAL COMMENTS

Please add any additional comments you may have on this section here.

N/A

Name: Douglas Simpson and Nola Ruzycki Organization: Utilities Consumer Advocate

CMD Final Section 6: Rebalancing auction

GENERAL FEEDBACK QUESTIONS

1) *Please provide your feedback as to whether the design in this section meets the desired end state and criteria set out for Alberta's capacity market design?*

   Yes.

2) *Which, if any, of the concepts or details discussed in this section are unclear or confusing? What should be added or clarified in the ISO rules to address this?*

   N/A

3) *What gaps or disconnects may exist in this section? What should be added or clarified in the ISO rules to address this?*

   N/A

4) *In addition to 2) and 3) above, what other factors or information should the AESO consider as it drafts the ISO rules for this section?*

   N/A

ADDITIONAL COMMENTS

Please add any additional comments you may have on this section here.

N/A

Name: Douglas Simpson and Nola Ruzycki Organization: Utilities Consumer Advocate

CMD Final Section 7: Capacity market monitoring and mitigation

GENERAL FEEDBACK QUESTIONS

1) *Please provide your feedback as to whether the design in this section meets the desired end state and criteria set out for Alberta's capacity market design?*

   Yes.

2) *Which, if any, of the concepts or details discussed in this section are unclear or confusing? What should be added or clarified in the ISO rules to address this?*

   N/A

3) *What gaps or disconnects may exist in this section? What should be added or clarified in the ISO rules to address this?*

   N/A

4) *In addition to 2) and 3) above, what other factors or information should the AESO consider as it drafts the ISO rules for this section?*

   N/A

SPECIFIC FEEDBACK QUESTIONS

1) *What additional considerations or further detail may be required regarding how the AESO will conduct the ex ante market power screen to identify firms that will be subject to capacity market mitigation?*

   N/A

2) *What additional considerations or further detail may be required regarding the determination of asset specific offer caps?*

   7.1.13 – How will the AESO decide if these costs are appropriate? These are costs that would typically be provided in a utility rate application and in the interest of fairness the AUC establishes a proceeding where evidence is submitted, questions are asked, sometimes there is an oral hearing and finally the AUC, as an independent quasi-judicial body makes a decision on whether the application is appropriate. Does the AESO have a similar process in mind? The UCA does not believe that an officer's attestation takes the place of proper due process.

ADDITIONAL COMMENTS

Please add any additional comments you may have on this section here.

(insert response here)

Name: Douglas Simpson and Nola Ruzycki Organization: Utilities Consumer Advocate

CMD Final Section 8: Supply obligations and performance assessments

GENERAL FEEDBACK QUESTIONS

1) *Please provide your feedback as to whether the design in this section meets the desired end state and criteria set out for Alberta's capacity market design?*

   The UCA finds that the use of 250 hours fails to address seasonality and seasonality, in our view, is a significant factor in Alberta. The UCA prefers a seasonal approach which would be done by using the 4 or 5 tightest hours each month rather than 250 hours each year.

2) *Which, if any, of the concepts or details discussed in this section are unclear or confusing? What should be added or clarified in the ISO rules to address this?*

   N/A

3) *What gaps or disconnects may exist in this section? What should be added or clarified in the ISO rules to address this?*

   N/A

4) *In addition to 2) and 3) above, what other factors or information should the AESO consider as it drafts the ISO rules for this section?*

   N/A

SPECIFIC FEEDBACK QUESTIONS

1) *What additional considerations or further detail may be required regarding how the AESO will assess whether demand response assets have obtained a sufficient load volume prior to the second rebalancing auction?*

2) *What additional considerations or further detail may be required regarding how the performance of external capacity assets will be measured during availability and delivery assessment periods?*

3) *Should the list of events under which availability and delivery assessments will not be conducted as provided in section 8.2.39 be further defined? If so, please provide your suggestions.*

ADDITIONAL COMMENTS

Please add any additional comments you may have on this section here.

Name: Douglas Simpson and Nola Ruzycki Organization: Utilities Consumer Advocate

CMD Final Section 9: Settlement and credit requirements

GENERAL FEEDBACK QUESTIONS

1) *Please provide your feedback as to whether the design in this section meets the desired end state and criteria set out for Alberta's capacity market design?*

   Yes, it does.

2) *Which, if any, of the concepts or details discussed in this section are unclear or confusing? What should be added or clarified in the ISO rules to address this?*

.N/A

3) *What gaps or disconnects may exist in this section? What should be added or clarified in the ISO rules to address this?*

   N/A

4) *In addition to 2) and 3) above, what other factors or information should the AESO consider as it drafts the ISO rules for this section?*

   N/A

ADDITIONAL COMMENTS

Please add any additional comments you may have on this section here.

(insert response here)

Name: Douglas Simpson and Nola Ruzycki Organization: Utilities Consumer Advocate

CMD Final Section 10: Roadmap for changes in the Energy and Ancillary Services Markets

GENERAL FEEDBACK QUESTIONS

1) *Please provide your feedback as to whether the design in this section meets the desired end state and criteria set out for Alberta's capacity market design?*

   Yes.

2) *Which, if any, of the concepts or details discussed in this section are unclear or confusing? What should be added or clarified in the ISO rules to address this?*

   N/A

3) *What gaps or disconnects may exist in this section? What should be added or clarified in the ISO rules to address this?*

   N/A

4) *In addition to 2) and 3) above, what other factors or information should the AESO consider as it drafts the ISO rules for this section?*

   N/A

SPECIFIC FEEDBACK QUESTION

1) *What additional considerations or further detail may be required regarding the determination of the asset-specific reference price for non-thermal, energy-limited assets?*

N/A

ADDITIONAL COMMENTS

Please add any additional comments you may have on this section here.

At the June 13 consultation session for the capacity market work group, the AESO explained and demonstrated that they were having trouble supporting 3XSRMC as the unit specific cap. The UCA is disappointed that in spite of this the AESO has decided on 3XSRMC.

However, if the reference technology turns out to be a combined cycle unit, then net CONE will be higher. In this case, consumers are paying excess for the energy market (since the combined cycle generators do not need more than 2x SRMC) and they will have to pay more for the capacity market because the combined cycle unit is a more expensive reference technology.

According to figure 7, only 16% of firms are operating for 30 minutes, raising their average cost to 2.73 (Table 3). However, if you set the cap at 2X SRMC, it incentivizes firms to operate for longer periods to lower their own cost, which lowers cost to consumers, and ensures greater reliability. In the AESO study, they found that the mean and median operating time were 270 minutes, and 130 minutes, which allows for 2X SRMC to be more than enough to cover cost. A report completed by Charles River Association for the Alberta Market Surveillance Operator also found that a 3X SRMC is very generous for generators.

When firms will be operating for less than 1 hour, it will most likely be at times where there is a shortage, and the 6X SRMC will cover those costs as well. Even when looking at operating times of 15 minutes, their average cost only reaches 4.45 according to table 3. Because of this information, when supply cushion is low, we think that a 5X SRMC would be sufficient as well.

Name: Douglas Simpson and Nola Ruzycki Organization: Utilities Consumer Advocate

CMD Final Section 11: UCA FINAL OBSERVATIONS AND COMMENTS

The Utilities Consumer Advocate is concerned with the direction that AESO has taken with the implementation of certain elements in their design of the capacity market. While we appreciate the efforts and inputs of both the AESO and capacity market working groups, we do not believe the desired end state will be fully achieved, including maintaining supply adequacy and reliability at the lowest cost for consumers. Areas of concern are summarized below.

The UCA recommends replacing the proposed method to determine an asset's UCAP with a self-setting UCAP methodology. The amended process would place the onus on the asset owner to accurately forecast the asset's UCAP capability based on their forward-looking calculations. If the asset's proposed UCAP is not within +/- 10% tolerance of the AESO's pre-determined UCAP value, the AESO could complete an audit and/or challenge the calculation. The capacity asset must meet its availability and performance obligations or be subject to a financial penalty and UCAP re-alignment. Should the asset fail to meet its obligation the AESO would be tasked with setting the asset's UCAP for the next 5 year period. This approach would avoid what could be a significant number of disputes and addresses the historical look back approach to determining UCAP.

Using the 100 or 250 tightest hours to determine UCAP does not account for seasonality and only considers the unit's past performance which occurred under a fundamentally different market design; an energy only real-time market. The tightest hours historically have occurred in the summer months when supply is tight due to planned outages and better weather. Therefore, the UCA recommends using the 4 or 5 tightest hours in each month in a year to calculate UCAP as this will be a better indicator to forecast reliability than using data which may be skewed because of planned outages (often made during the summer).

The capacity market should include an option for seasonal capacity commitments. Failing to address seasonality results in higher costs and renders certain resource types unable to participate as capacity resources.

The UCA remains of the view that energy efficiency resources should be eligible in the initial implementation of the capacity market as energy efficiency resources can make a substantial contribution to a lower market clearing price with the effect of lowering costs to consumers.

The UCA strongly objects to compensating over-performers with funds collected from under-performers through the over-availability payment adjustment mechanism. The UCA is disappointed that this concept has become a part of the capacity market design without any discussion of its merit, in spite of the UCA's consistent opposition to the idea. Any gains collected through under-performance penalties should be allocated back to consumers. The UCA is of the view that properly designed energy and ancillary services markets would incentivize over-performers. The UCA's position is aligned with the Potomoc Economics paper available on the MSA website.

The UCA cannot support the proposed Gross-cone determination as it is inappropriate to use the data and analyses of Dr. Villadsen to determine Gross-cone, especially while the methodology is under consideration by the AUC in an active regulatory proceeding.

UCA is not confident that the AESO process is adequate for reviewing asset specific price cap net avoidable costs. The UCA does not believe that an officer's attestation takes the place of due process.

While the UCA generally supports graduated scarcity and the price screen concept proposal, the UCA has concerns regarding the proposal to mitigate generators that fail the market power screening in the energy market to offer at a price cap of 3x its short run marginal cost. The AESO has not provided sufficient evidence to substantiated why 3x SRMC is supported when recent discussions led by the AESO in the working groups demonstrated that 2x was being considered and this is also supported by Charles River's paper completed for the MSA. Better supporting information would alleviate this concern.

It also appears that 2X SRMC would be sufficient for all but two simple cycle units with .25 and .5 hours run time at full output. When firms will be operating for less than 1 hour, it will most likely be at times where there is a shortage, and the 6X SRMC will cover those costs as well. Even when looking at operating times of 15 minutes, their average cost only reaches 4.45 according to Table 3-Sensitivy of ratio of average to marginal costs to run-times. Because of this information, when supply cushion is low, we think that a 5X SRMC would be sufficient as well.

The UCA submits that the capacity market will require regular fine-tuning to ensure the desired end state is satisfied. Appropriate milestones and audits will need to be established given this is a new venture and most capacity markets are adjusted regularly and monitored carefully to ensure they are successful.

Name: Douglas Simpson and Nola Ruzycki Organization: Utilities Consumer Advocate