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

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.*

   (insert response here)

2) *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.*

   (insert response here)

3) *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.*

   (insert response here)

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

   (insert response here)

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

   (insert response here)

Name: Surendra Singh, Organization: Alberta Newsprint Company (ANC)

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?*

   (insert response here)

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?*

   (insert response here)

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

   (insert response here)

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?*

   In pre-qualification Section 2.1.7(e), the AESO notes that the asset must be tested to demonstrate the ability of the DR asset to curtail down to the FCL. ANC suggests that this is acceptable for new DR in Alberta that hasn't historically participated as price responsive load. However, ANC has demonstrated the ability to curtail numerous times in the past and should not require further testing during pre-qualification. ANC would suggest that existing price responsive load can show its ability to curtail in response to high prices over a minimum 4-hour window by providing historical data. This should be acceptable for pre-qualification.

   ANC supports the AESO's move towards recognizing un-dispatched volumes in the net participation category but does not believe the approach is as effective as simply using real-time data to calculate availability. ANC has the ability to reduce load to 5 MW on short-notice and simultaneously produce 63 MW of gross generation. The site has the ability to produce net to grid exports of 58 MW with very high reliability, and the AESO's approach must reflect this reality. Rules that do not accommodate the market to reflect reality are technically deficient and ANC is concerned that the proposed rules do not treat the site fairly or appropriately. While the regression approach attempts to examine average performance during 250 historical hours, it by definition will not capture the real-time ability of the site. Given that AESO has indicated its primary concern is that it needs to have confidence that a dispatched MW will actually 'show up', it is unclear how a regression using historical averages accomplishes this. Again, the AESO needs to develop an approach that allows the combined capability of the load reduction to be measured concurrently with onsite generation to reflect the full, and very reliable, capability of the site.

   ANC does not agree that self-suppliers may only switch their status every four years. Self-suppliers should maintain the flexibility to switch between net and gross participation if they need to due to a change in business reasons or a change in market rules. These items will not neatly align on a four-year cycle. An adequate amount of certainty is provided by the significant forward period on the intension to switch, given that the facility owner needs to declare its self-supply status at the time of pre-qualification. The AESO and the market should not further implement restrictions that add minimal benefits while removing necessary flexibility of Alberta business.

   Lastly, ANC suggests that the AESO reconsider allowing DR to participate on the demand side of the capacity market auction, as well as the supply side.

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?*

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

3) *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?*

ADDITIONAL COMMENTS

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

(insert response here)

Name: Surendra Singh **Organization:** Alberta News Print Company (ANC)

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?*

   (insert response here)

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?*

   (insert response here)

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

   (insert response here)

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?*

   ANC suggests that the FCL baseline to determine the UCAP of a CCL should be tied to the weighted energy methodology used for cost allocation, i.e. if a load asset is allocated the equivalent of 50MW of costs through the weighted energy methodology, then the FCL baseline should be set at 50MW. The FCL capacity committed load will then have the ability to manage capacity market costs by participating as a demand response load in the capacity market. The load asset will continue to pay the capacity market costs through the tariff but will also receive an amount in capacity market revenue to off-set these costs. The use of a short-term look back as the baseline creates potentially poor incentives (for example, a load is 'punished' if it schedules maintenance downtime during tight system periods as this will trigger low look back measurements) and further does not reflect the actual contribution of the load reduction relative to capacity market purchases. In effect, the AESO approach is suggesting that load consumed several days ago somehow has implications for reliability in real-time. ANC suggests that the more reasonable approach is against allocated costs as these should correlate with capacity not purchased to serve that demand response asset.

   Alternatively, given that the costs allocated in the delivery year cannot be known at the time of the capacity auction, ANC suggests that the qualified baseline be established by averaging the load over the hours associated with the cost allocation methodology, including associated weights, for the determined time-period, likely the previous year.

   If AESO were to proceed with proposed UCAP calculation based on the load during 250 tightest hours for FCL CCL, the UCAP will be greatly underestimated for the first time for price response load as AESO will have no way to know the actual AC (Available Capacity) of the load since load has not been participating in current energy market. Therefore, the UCAP for first time should be adjusted to reflect the unavailability of proper load profile data. On going forward, the AESO should use the AC (actual load plus dispatched load) for a FCL load UCAP calculation as it will be consistent with the UCAP calculation of generating assets.

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?*

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

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

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.

ANC supports the AESO's proposal to allow generators to choose their UCAP from a range. This will help to manage generator penalty risk.

ANC supports the AESO's determination that hours for which the resource was mothballed or delisted will not be a part of the UCAP calculation.

Name: Surendra Singh **Organization:** Alberta News Print Company (ANC)

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?*

   (insert response here)

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?*

   (insert response here)

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

   (insert response here)

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?*

   As a load within the province of Alberta, ANC is concerned regarding the bias towards over procurement in the current demand curve shape. ANC is disappointed to see that the demand curve parameters have increased their bias towards over procurement between CMD 2.0 and CMD final, rather than decreased the bias as one would hope. The AESO does not seem to be adequately responding to comments on this topic.

   Over procurement has a number of negative effects on the market including minimizing the real time energy market price signal by removing scarcity from the market entirely. However, ANC expects generators to voice these types of concerns (and notes that generators have voiced these concerns previously) and would like to focus on the concerns of load assets. Load will be required to pay for the costs of the capacity market and over procurement will result in a significant increase in annual capacity market costs for only a minor decrease in energy market costs, as energy market costs need to remain high enough to, at a minimum, cover fuel and start up costs. The current demand curve shape is predicted to increase annual costs to load by approximately $100 million per year relative to a curve without any over procurement bias. (Based on the premise that 500 MW of incremental capacity has a 'carrying cost' of at least $100M and any reductions in energy prices simply increase capacity prices). This is a bill that ANC does not want to pay. This is especially true as the increased costs do not even come with increased reliability. ANC notes that AESO's analysis has shown that 10,012 MW of UCAP procurement will result in an EUE of 2 MWh. Accordingly, procurement beyond that level costs load money without providing any benefits.

   ANC is concerned that most load groups are more focused on cost allocation issues, i.e. how to divide up the pie. ANC, however, submits that more work needs to be done upfront to minimize the size of the pie, saving money for all load customers, regardless of cost allocation. It is a certainty that over-procurement will lead to higher prices over time as capital must be paid for, and planning for over-procurement from the get go is not an efficient approach and clearly fails to meet the AESO goal to deliver power at the lowest possible cost to consumers.

ADDITIONAL COMMENTS

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

(insert response here)

Name: Surendra Singh **Organization:** Alberta News Print Company (ANC)

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?*

   (insert response here)

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?*

   (insert response here)

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

   (insert response here)

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?*

   (insert response here)

ADDITIONAL COMMENTS

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

(insert response here)

Name: Surendra Singh, Organization: Alberta Newsprint Company (ANC)

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?*

   (insert response here)

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?*

   (insert response here)

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

   (insert response here)

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?*

   (insert response here)

ADDITIONAL COMMENTS

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

ANC supports the AESO proposal to hold one rebalancing auction three months before delivery in each of the transitional years. It is important that a rebalancing auction is still held, even with the shortened forward period.

Name: Surendra Singh **Organization:** Alberta News Print Company (ANC)

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?*

   (insert response here)

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?*

   (insert response here)

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

   (insert response here)

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?*

   (insert response here)

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?*

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

ADDITIONAL COMMENTS

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

ANC supports the new mitigated offer cap of 0.8 x Net-CONE. This level is much more reasonable than the previous 0.5 x Net-CONE. ANC also believes that the increased ability to manage price risk in the capacity market is further support for a reduction in the expected over supply in the market via the demand curve parameters.

Name: Surendra Singh **Organization:** Alberta News Print Company (ANC)

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?*

   (insert response here)

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?*

   (insert response here)

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

   (insert response here)

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?*

   ANC submits that the capacity obligation of an FCL CCL is the consumption level that the CCL has committed to reduce its load to to meet in the event it is called upon. The UCAP calculation is consistent with this understanding as the capacity contribution is defined as the difference between the baseline and the FCL. The performance framework, however, is not consistent with this understanding.

   The current definition states that availability of an FCL CCL is measured as "the difference between a 'look back baseline' less the firm consumption level." A look back baseline is completely irrelevant when determining availability of an FCL CCL from a logical and system impact perspective. As noted above, the obligation is to reduce to the FCL. Availability, then, should be defined as the availability to reduce to the FCL. Given that CCLs participating on the supply side of the capacity market will be required to offer their load reductions into the energy market, then any MWs with an un-dispatched offer are available to be reduced and any MWs already reduced are clearly also available. As long as total load minus un-dispatched DR is less than or equal to the FCL then the FCL CCL should be considered available in compliance with its capacity market obligation.

   ANC expects to participate in the capacity market as an CCL resource with an FCL of approximately 5MW. In a given hour if ANC's load is 70MW and ANC has 65MW of DR offers in the energy market merit order at prices above the current market price, then ANC is available to go down to 5MW and is therefore should be assessed as available for its full UCAP. This should be independent of a look back. If this example hour was one of the 250 tightest hours in the delivery year, then ANC's penalty for that hour would be $0 because it was available to meet its commitment. In the same example, if ANC had 60 MW of available DR in the energy market merit order, it would face an unavailable payment adjustment associated with non-delivery of 5MW, or $2600 at a clearing price of $100,000/MW-year because it was in effect only able to go down to 10 MW.

   The AESO approach in effect treats FCL load as load reduction (GLR) – if the look back period had 100 MW as the baseline then the AESO would only require the FLC resource to reduce to 40 MW if the UCAP was 60 MW and the FCL level was 5 MW. ANC also notes that the approach creates perverse incentives that encourage higher consumption during tight periods or leading up to tight periods. This is akin to odd incentives created by the PPA units wherein real-time signals are confounded by backward looking incentives. Performance should be measured against solely the real-time ability to reduce to the committed level.

   ANC also notes that the AESO does not appear to consider whether load during the look-back period was dispatched off or not. For example, if ANC submitted an offer to reduce to 5 MW at a price of $100/MWh and this was dispatched during one of the look back periods, the current performance framework absolutely must consider this dispatch. The current framework appears to dictate a price behaviour (i.e. discourage price responsiveness) for FCL resources that is not consistent with efficient market operations.

   Finally, the approach during delivery events does not use a look back approach as the AESO appropriately recognizes that it is the actual reduction to a level that provides the reliability. ANC submits that this approach is appropriate for both availability and delivery as it is the best measure of actual performance. In effect, the AESO should measure either the ability to reduce to a level, or if dispatched, the actual performance to reduce to a level. A look back approach is simply not required for performance assessment and actually sends inefficient signals.

   Regarding the performance volume, the AESO's definition for FCL CCL is adequate. This definition is "metered volume of load not reduced due to operating reserves or LSSi arming will be deducted from the metered volume of the asset. This difference must be equal to or less than the firm consumption level."

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.

(insert response here)

Name: Surendra Singh **Organization:** Alberta News Print Company (ANC)

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?*

   (insert response here)

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?*

   (insert response here)

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

   (insert response here)

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?*

   (insert response here)

ADDITIONAL COMMENTS

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

ANC supports monthly penalties being limited to 100% of monthly revenues for settlement purposes.

Name: Surendra Singh **Organization:** Alberta News Print Company (ANC)

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?*

   (insert response here)

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?*

   (insert response here)

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

   (insert response here)

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?*

   Dispatch Tolerance

   ANC would welcome the opportunity to discuss appropriate rules for FCL CCL/DR to ensure the AESO does not inadvertently create barriers to participation. Load may not ramp up in a smooth manner consistent with the generator rules and must be accommodated within the rules. ANC accepts that the AESO needs visibility and predictability but the dispatch rules must not be the reason load does not participate. ANC notes that if the rules are too restrictive the load will not be a CCL resource, but price responsive load will continue to dispatch based on opaque signals to the AESO. In effect, the AESO will need to deal with the issue in any event.

   Market Power Mitigation

   ANC supports the no-look threshold but suggests that it should be set at a higher level of supply cushion. Historically, scarcity pricing began to occur before the supply cushion reached 250MWs and the energy market power mitigation test should be designed to allow high prices during scarcity but not allow high prices when conditions aren't scarce. The no-look threshold, then, should be set equal to where the AESO considers scarcity to begin. ANC suggests this level is closer to 1000MW than 250MW.

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?*

ADDITIONAL COMMENTS

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

(insert response here)

Name: Surendra Singh **Organization:** Alberta News Print Company (ANC)