

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: Brian Strandlund & Rochelle Pancoast Organization: City of Medicine Hat

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?

The City of Medicine Hat suggests that only market participants with market power should be assessed as a part of the temporary delisting process. Any market participants without market power should be able to temporarily delist when they consider it to be appropriate. Specifically, the City of Medicine Hat must maintain this level of flexibility over its own assets. The City of Medicine Hat will have different reasons for mothballing units than other market participants. The City of Medicine Hat needs to maintain the flexibility to temporarily delist assets when it makes sense for City reasons. Given that the City of Medicine Hat will participate in the capacity market as a net-to-grid self-supplier, the City of Medicine Hat considers that the temporary delisting process is unlikely to be applicable in the event a single generator needs to be mothballed and that this concern can be managed through the UCAP dispute resolution process as long as the AESO is adequately flexible to allow such an application through that process.

The AESO should also confirm that security payments are not required for generators or incremental capacity that is added behind-the-fence. New behind-the-fence generation being added in the City of Medicine Hat will be added to serve city load and should not be considered incremental generation.

Further, the City of Medicine Hat suggests that units should be able to return from a temporary delist when market conditions change and not be bound by the return date submitted in the delist bid. If system reliability is compromised and energy prices rise, the market participant, the AESO, and all of Alberta will benefit from a unit returning from a temporary delist early. This should not be restricted by the rules. The City of Medicine Hat reiterates that it considers the UCAP dispute resolution process a more appropriate mechanism for it own self-supply needs than the delisting process. The City of Medicine Hat should be able to bring generators back online as necessary for city reliability and cannot be restricted by dates in a delisting bid.

In summary, the City of Medicine Hat maintains a view that it should not be encumbered in detailing to the AESO any adjustments to behind the fence capacity given its unique motivations to serve City load, lack of market power to the AESO grid, and simple adjustments to the City’s net-to-grid supplier UCAP can replace the need for otherwise administratively burdensome assessments of capacity adjustments (especially since load movements can overwhelm supply movements anyway).

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.

The City of Medicine Hat is supportive of the AESO’s decision to treat it as a self-supplier as treatment on a net basis is the most consistent with the City of Medicine Hat’s current interactions with the AIES and the City of Medicine Hat’s legislated responsibilities.

The City of Medicine Hat supports the AESO’s proposal to allow permanent delisting or asset retirement at the discretion of the asset owner except in the case where the retirement would impact system reliability. The City of Medicine Hat considers it is important to asset owners to have this discretion and flexibility in their operations.

CMD Final Section 2: Supply Participation

Name: Brian Strandlund & Rochelle Pancoast Organization: City of Medicine Hat

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?

Since the City of Medicine Hat is responsible for maintaining reliability within its service territory, the City of Medicine Hat does not believe that a must offer requirement on its UCAP value in the capacity market is appropriate. The City of Medicine Hat understands that under the current proposal, the AESO would determine the UCAP of a resource and the resource would have a must offer on that amount which would then be committed in the capacity market. This methodology is not appropriate for the City of Medicine Hat as its first priority must be maintaining reliability within its service territory. There are two options to solve this issue: (1) the City of Medicine Hat is not subject to the must offer requirement and instead given a may offer on their UCAP amount; or (2) the City of Medicine Hat is able to reduce its UCAP as it deems necessary after the AESO has qualified its UCAP but before the auction occurs; this reduction must be allowed to be more than the reduction that would currently be allowed by the selection of a UCAP within a range. In the second case, a must offer would apply to the reduced amount, therefore solving the City of Medicine Hat's internal reliability concerns. The City of Medicine Hat also notes that the AESO has introduced a UCAP dispute resolution process and a UCAP refinement process and expects that these processes will be adequate to manage the above noted concern.

The City of Medicine Hat supports the addition of more hours to the UCAP calculation, beyond 250, as adding more hours into the calculation will lower supplier risk and lower year-over-year UCAP volatility.

The regression approach that the AESO is now using to determine UCAP is an improvement on the capacity factor approach but does not appear to fully consider available capacity from the City. The City of Medicine Hat frequently has un-dispatched generation that is available as capacity but is not exported for economic or internal reasons. It is unclear why the AESO has discounted this un-dispatched capacity from the City of Medicine Hat via its regression approach. The AESO has not provided a rationale indicating that it does not believe a non-dispatched MW will result in a 1:1 increase in net metered volumes to the grid if it is dispatched. The regression approach establishes average relationships over a 5 year period but does not imply expected performance in a given hour. It should also be noted that by not including ancillary services volumes as part of the dispatch level and metered volumes (in effect adjusting both variables by the amount of the ancillary service obligation) the AESO is biasing the dataset.

A simpler and more relevant approach for the City should simply be one that takes metered volumes plus ancillary services volumes plus undispached MW as the availability for exports in an hour. This is the most realistic estimate of actual capability in a given hour, and most closely aligns expected performance to the obligation. A regression approach aligns average performance historically against the obligation, and it is unclear on what basis this is preferred to the real-time estimate. Further, the current regression approach appears to understate UCAP by about 20 MW for the City relative to the approach proposed above. This potentially disadvantages CMH and results in higher overall costs for Alberta consumers.

Further, as noted in its previous comments, the City of Medicine Hat would suggest that using 5-years of historical net-generation exported to the Alberta grid may not be an accurate representation of net to grid capability in the transitional period as the City of Medicine Hat would have been making decisions to export or not based on an energy only construct, not the new capacity market. After the transitional period, this will no longer be an issue. The City of Medicine Hat would suggest that it should have the ability to adjust its UCAP in the early years of the capacity market to reflect this change in price signal. The City of Medicine Hat suggests that this be managed through the UCAP dispute resolution process. Finally, the City has recently added a material amount of new capacity to its portfolio, along with heightened flexibility to a material portion of its internal load. Both of these changes will impact operations and the ability to export to the larger grid and must be considered in setting an appropriate UCAP.

With respect to flexible load behind the City fence, the AESO has suggested it will not allow both generation and demand response resources to be included in a UCAP measurement behind a single point. The regression approach to determine the City's UCAP, however, will not likely capture this load flexibility to the extent that it is accessible, and load shedding 'capability' is just as important as supply 'capability' for 'net-to-grid' self-supplies like the City.

The City is also surprised to recently learn that Cancarb, despite being identified as a separate AESO market participant, for the purposes of the capacity market will be treated as an aggregated resource within the City's net-to-grid self-supply measurements. This aggregation comingles capacity and performance obligations of different legal entities and it unnecessarily shifts the City's capacity market risk profile. The complexity of this comingling is much higher than under an energy-only market structure.

CMD Final Section 3: Calculation of UCAP

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?*

It is not clear. CMH requests information on:

- How will UCAP be adjusted for expected City load growth via the regression?
- How will UCAP be adjusted for behind the fence capacity additions or retirements via the regression?
- Will the regression used to assess performance utilize updated data (the most recent trailing 5 years) or only more recent data if there are material changes to load and/or supply?
- Why is the data for metered volumes and dispatch levels not adjusted for ancillary services, i.e. ancillary services are treated as equivalent to energy in most aspects of the capacity market but within the regression approach ancillary services volumes are not counted? This biases the UCAP downwards.
- How can the regression consider flexible load behind the fence? CMH believes the regression will systematically reduce UCAP when flexible load is added, yet the capability of the system to export during tight hours or emergencies will not be impacted. In this regard the regression appears inadequate to capture the capability of CMH resources.

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

CMH requests that the AESO consider a working group to consider the details of the proposed regression approach, as this was not consulted on in the workgroup sessions and the rules process may not be the ideal venue for these details to be considered.

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.

(insert response here)

Name: Brian Strandlund & Rochelle Pancoast Organization: City of Medicine Hat

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?

The City of Medicine Hat continues to note that it is important to maintain value in the energy market. The energy market has the ability to incent real-time behaviour as well as send the long-term incentive for flexibility. These are both important signals that the AESO should endeavor to maintain.

Along those lines, it is important to avoid over procurement in the capacity market. The City of Medicine Hat is concerned that the demand curve parameters in the final CMD are even more biased to over procurement than those parameters included in CMD 2.0. The City of Medicine Hat suggests that the AESO needs to correct these parameters to avoid over procurement bias; the City believes over-procurement will result in distorted energy and capacity market price signals with risk to long term market sustainability and will result in unnecessary capacity costs being allocated to load.

ADDITIONAL COMMENTS

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

(insert response here)

Name: Brian Strandlund & Rochelle Pancoast Organization: City of Medicine Hat

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: Brian Strandlund & Rochelle Pancoast Organization: City of Medicine Hat

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.
(insert response here)

Name: Brian Strandlund & Rochelle Pancoast Organization: City of Medicine Hat

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?

The City of Medicine Hat is supportive of the change to a mitigated offer threshold of 0.8xNet-CONE. This more adequately allows incumbents to price in their capital costs and not only their going forward costs into capacity market offers.

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.

(insert response here)

Name: Brian Strandlund & Rochelle Pancoast Organization: City of Medicine Hat

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?
(insert response here)

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: Brian Strandlund & Rochelle Pancoast Organization: City of Medicine Hat

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.

The City of Medicine Hat is supportive of the monthly settlement cap set at 100% of monthly revenues as this will prevent cash flow issues for market participants.

Name: Brian Strandlund & Rochelle Pancoast Organization: City of Medicine Hat

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?

The City of Medicine Hat considers that maintaining value in the energy market should be a top priority. This means that over-mitigation must be avoided and the market power mitigation methodology must allow generators some flexibility in their offers. The City of Medicine Hat supports the AESO's decision to mitigate costs to 3xSRMC/6xSRMC combined with the no-look threshold in the energy market power mitigation screen. This will allow true scarcity pricing to exist in the tightest supply cushion hours each year and it will allow sufficient generator offer flexibility in the hours with a lower supply cushion.

That being said, the City of Medicine Hat is concerned that the no-look threshold has been set too low. The City of Medicine Hat is supportive of the AESO's comments that the no look threshold should be sized for the single largest contingency but notes that the AESO has not put that into practice. The City of Medicine Hat would also support a transition mechanism as the market starts to tighten that prevents price from spiking as soon as the no-look threshold is reached. For example, a transition mechanism could allow mitigated market participants a higher mitigated offer cap as the supply cushion approaches 250MW.

The City of Medicine Hat wants to ensure that it is only mitigated or not mitigated based on its net to grid, i.e. The City is able to register its load and have that subtracted from its total as a part of the hourly screen or the AESO only considers net-exports as a part of its calculation.

The City of Medicine Hat is concerned with the AESO's suggestion to tighten the dispatch tolerance. This adds complexities that are unique to the City of Medicine Hat, where the load can change unexpectedly while the City of Medicine Hat is responding to a dispatch. The City of Medicine Hat has some large loads that can shift by as much as 10MWs fairly quickly and while the generators are able to respond to those changes, it can be difficult to manage load swings and AESO dispatches simultaneously. If the AESO considers this concern to be adequately unique to the City of Medicine Hat, then the City of Medicine Hat would be willing to meet with the AESO to discuss the best solution.

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: Brian Strandlund & Rochelle Pancoast Organization: City of Medicine Hat
