

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

Name: Derek Skeet Organization: Husky Energy

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

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.

Name: Derek Skeet Organization: Husky Energy

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

Regarding permanent delisting – In the case where the AESO forces an asset to stay online instead of permanent delisting, the asset should be adequately compensated and the timeframe should be restricted so that new assets can take the place of the delisting asset.

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.

The self supply UCAP regression for gross dispatched/net metered self supply seems to closely approximate the UCAP calculated under the calculation of net metered volumes in the 250 hours (over 5 years) plus undispatched available volumes. However, it seems unnecessarily complicated when it would be much cleaner to just make the formula for UCAP equal to the average of the net metered volumes + un-dispatched available volumes, over the 250 hours per year x 5 years.

Name: Derek Skeet Organization: Husky Energy

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?

Discussions are continuing in this area, so a fair assessment of desired end state being met is not possible.

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

ADDITIONAL COMMENTS

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

Husky is concerned that using the forward curve in assessing the net generator revenue (leading to the Net-CONE calculation) may lead to a downward and permanent spiral in the energy price (and an ever-increasing Net-CONE and quantity of capacity purchased), if capacity is ever over-purchased just one time. A mechanism to bring the market back to equilibrium must be developed in case this happens.

The capacity market is unlikely to provide the same incentive for efficient, flexible generation as a healthy energy market. Husky is concerned that a bias to oversupply of capacity, in addition to being costly, will not result in the type of responsive generation expected to be required to support integration of intermittent renewable generation assets.

Analysis to compare the CMD 3 to CMD 4 demand curve suggests that the demand curve, if graphed on similar parameters (the X-access changed from "% of Reliability Requirement to % of Minimum Acceptable" in the illustration of proposed demand curve), has not changed significantly from CMD 3 to CMD4 (or it has slightly shifted to the right). The demand curve has not shifted to the left, despite the decrease in risk for all generators as a result of the change in mitigation price levels for mitigated firms from CMD 3 to CMD 4 in section 7.1.6 (moving from 50% Net-CONE). Demand Curve Modelling for CMD versions prior to CMD final, took into account the risk for generators if they had to go through several years of capacity prices at .5 Net-CONE. This analysis should be re-run with the consideration that there is less risk for generators with the mitigation levels set in section 7.1.6. This rerun of the analysis should shift the curve left.

Name: Derek Skeet Organization: Husky Energy

CMD Final Section 5: Base auction

GENERAL FEEDBACK QUESTIONS

- 1) Please provide your feedback as to whether the design in this section meets the design end state and criteria set out for Alberta's capacity market design?
- 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?
- 3) What gaps or disconnects may exist in this section? What should be added or clarified in the ISO rules to address this?
- 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?

ADDITIONAL COMMENTS

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

Name: Derek Skeet Organization: Husky Energy

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

ADDITIONAL COMMENTS

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

Name: Derek Skeet Organization: Husky Energy

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 design and criteria set out for Alberta's capacity market design?
- 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?
- 3) What gaps or disconnects may exist in this section? What should be added or clarified in the ISO rules to address this?
- 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?

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.

Name: Derek Skeet Organization: Husky Energy

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

Husky is concerned with the increasing risk for generators (compared to the energy only market) when considering that a generator can have their capacity payment for the year clawed back more than 25% in a single day consisting of 7-hour EEA event. The risk of non- performance in the tightest 250 hours is already accounted for in the go forward UCAP calculation and additional penalties should not be overly harsh. Increasing the risk of generator returns will require a larger reward requirement for the generators resulting in increased prices for the consumer.

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: Derek Skeet Organization: Husky Energy

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

ADDITIONAL COMMENTS

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

Name: Derek Skeet Organization: Husky Energy

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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 design and criteria set out for Alberta's capacity market design?
- 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?
- 3) What gaps or disconnects may exist in this section? What should be added or clarified in the ISO rules to address this?
- 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?

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.

Name: Derek Skeet Organization: Husky Energy

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