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

Public

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: Leonard Olien Organization: Solas Energy Consulting on behalf of CanWEA

Public

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?*

CanWEA supports the design of the aggregation procedure. CanWEA views aggregation as an important risk mitigation tool for wind power generation and the CMD proposal is sufficiently flexible to be useful to wind power generators. More clarity is required as to the legal requirements for the entity that participates in the capacity auction on behalf of the aggregated resources. It is also not clear if the requirement to aggregate into load settlement zones applies to generation resources. CanWEA supports to use of load settlement zones for load and distribution connected capacity resources but not for an aggregated resource that consists solely of transmission connected generation resources.

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: Leonard Olien Organization: Solas Energy Consulting on behalf of CanWEA

Public

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?*

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?*

   While CanWEA (supports/) the use of class average data for time periods before commercial operation of a facility, CanWEA also supports the ability to dispute the UCAP calculation based on data selection. This opportunity will be important for wind facilities with less than five years of operational data and where the use of the class average may not be indicative of the facility capacity value
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 AESO has selected a UCAP methodology for wind generation based on facility output during tight supply cushion hours. CanWEA can accept the use 250 hours in each of the past five years for the UCAP calculation. It is not clear that the UCAP methodology proposed by the AESO conforms to the actual capacity value of wind power or other generators. CanWEA would like analysis performed by the AESO using the Reliability Assessment Model to validate the UCAP values calculated under the CMD methodology.

CanWEA can accept the use of a UCAP range to allow individual generators to manage their Capacity Market risk. CanWEA is concerned that the proposed methodology results in ranges that are too narrow and recommends a change in methodology to create larger ranges. CanWEA would also like analysis performed by the AESO to understand the statistical variation inherent in the UCAP calculation methodology and how the proposed ranges compare to the distribution of UCAP values.

Name: Leonard Olien Organization: Solas Energy Consulting on behalf of CanWEA

Public

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?*
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.

CanWEA's greatest concern is that the demand curve will result in over-procurement of capacity and depressed prices in the energy market. The AESO has performed significant analysis to identify two candidate curves. Of the two curves proposed, CanWEA prefers the "less convex curve".

CanWEA has requested further information on the simulation methodology used to determine the demand curve parameters. Given the over 8,000 MW of projects in the AESO project list with an equivalent UCAP of over 2,500 MW, it is surprising that the average uncleared capacity in the Revised Candidate Results table is less than 250 MW. It is possible that the supply curve used in the simulation does not reflect the available supply in Alberta and the resulting demand curve simulations are over-estimating the risk of supply shortfall and underestimating the risk of over-supply. CanWEA would like to see a detailed comparison of the supply curve used in the simulations to the supply forecast in the AESO Long-Term Outlook plus generation projects reported on the current project list.

Name: Leonard Olien Organization: Solas Energy Consulting on behalf of CanWEA

Public

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?*
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: Leonard Olien Organization: Solas Energy Consulting on behalf of CanWEA

Public

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: Leonard Olien Organization: Solas Energy Consulting on behalf of CanWEA

Public

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?*
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: Leonard Olien Organization: Solas Energy Consulting on behalf of CanWEA

Public

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?*

   To incent new generation, CanWEA recommends that the framework is implemented on a gradual basis to give market participants the opportunity to gain an understanding of Capacity Market dynamics and associated risk profiles. The full payment adjustment regime should be implemented for the auction starting November 2022 (delivery starting November 2025) which would give market participants one year of capacity delivery experience before submitting offers and UCAP selections that would be subject to the full penalty amounts. Before November 2025, the payment adjustments should be applied on a reduced basis.

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 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.

CanWEA supports the supply obligation and performance assessment framework as proposed.

CanWEA can accept of the separation into an Availability Assessment period and a Performance Assessment period. CanWEA agrees with the selected weights of 40% for the Availability Assessment and 60% for the Performance Assessment. For the Performance Assessment period, CanWEA supports the use of the expected number of EEA hours with a minimum number of 20 hours for the denominator of the Performance Assessment adjustment value.

CanWEA supports the allocation of funds collected from under-performing assets to over-performing assets in both the Availability and Performance Assessment periods. The distribution of funds in this manner provides a balanced risk profile for capacity resource assets.

When a capacity resource is forced to reduce output due to a transmission constraint, CanWEA supports an adjustment to the output used in UCAP and performance calculations to match the unconstrained level. This treatment incents resources to provide capacity while removing the liability for system issues that are beyond the control of the resource operator.

Name: Leonard Olien Organization: Solas Energy Consulting on behalf of CanWEA

Public

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.

CanWEA supports the limit of capacity payment adjustments to the monthly capacity payment amount to avoid capacity resources being required to make payments to the AESO. The proposed payment adjustment limit simplifies cash flow management, risk management and third party contracting for capacity resources.

Name: Leonard Olien Organization: Solas Energy Consulting on behalf of CanWEA

Public

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?*
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.

CanWEA supports the implementation of an ex-ante market power mitigation framework. The proposed framework balances two competing principles:

- Resources receiving capacity value from the capacity market should not be compensated a second time in the energy market, and
- The Energy Market should remain the primary market in the electricity sector with the Capacity Market being secondary.

Within the proposed framework, CanWEA can accept the Residual Supplier Index level set at 1.0 to indicate firms with market power. For those firms with market power, CanWEA supports an offer cap of three times short-run marginal cost. CanWEA supports the increase in the offer cap to six times short-run marginal cost during hours when the supply cushion is less than 1,000 MW and can accept a threshold of 250 MW at which the offer cap is lifted completely. Without the scarcity screen, prices could decrease during times of supply scarcity, which is not the correct market signal. The proposed increase in the marginal cost multiplier as proposed corrects the market design.

AESO analysis of Net Demand Variability has shown a need for increased ramp capability as the capacity of wind and solar power generation increases. CanWEA believes that structures or products in the Energy and Ancillary Markets are the proper mechanisms to incent the needed ramping capability and CanWEA supports further investigation of potential mechanisms.

Name: Leonard Olien Organization: Solas Energy Consulting on behalf of CanWEA

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