

# Stakeholder Comment Matrix

Designing Alberta's Capacity Market stakeholder sessions held January 12 and 16, 2017



Date of Request for Comment: <u>February 10, 2017</u>	<b>Contact:</b> <u>Rob Kaczanowski or John Maniawski</u>
Period of Comment: <u>January 17, 2017</u> through <u>February 10, 2017</u>	<b>Phone:</b> <u>(403) 231-5997 or (403) 231-5717</u>
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Date [yyyy/mm/dd]: <u>2017/02/10</u>	

To initiate stakeholder consultation on the capacity market design, the AESO hosted kick-off stakeholder sessions in Calgary and Edmonton on January 12 and 16, 2017. At these sessions the AESO presented a brief description about capacity markets, described our vision of the desired end state, proposed an approach to undertaking the design and a potential roadmap for completing the work. In addition, the AESO presented an approach to consultation, as well as a set of proposed criteria and assumptions to be used as tools to guide the capacity market design.

The presentation can be [found here](#).

We request your feedback about these topics as well as any others that you believe are appropriate for the AESO to consider. We expect a great deal of feedback based on the level of interest demonstrated by stakeholders at the sessions, and request you use this structured template to provide your comments. This will allow the AESO to quickly synthesize and publish the feedback from a broad range of interested parties.

**All stakeholder comments received will be reviewed by the AESO and posted on the AESO website.**

## Capacity Market Design Approach

Please indicate in your response whether you support the planned design approach, or if not, why?

Section	Approach	Stakeholder Response
<b>Proposed desired end state of capacity market development</b>  <i>Slide 7</i>	<p>Do you support the following statement regarding the desired end state for the capacity market? Do you disagree with the statement or have alternative wording? Please provide reasons for your response.</p> <p><i>“The desired end state is to develop a capacity market that utilizes competitive market forces, ensures continued supply adequacy and reliability at a reasonable cost and is flexible to reflect the unique aspects of Alberta’s electricity industry.”</i></p>	<p>Enbridge supports this statement in general terms, but questions whether the statement may be too vague or subjective to provide a useful goalpost for the capacity market redesign process. Stakeholders, for instance, are likely to have differing views on what “ensuring continued supply adequacy and reliability” means and should entail, what a “reasonable cost” should be and what “flexible to reflect the unique aspects of Alberta’s electricity industry” means. Enbridge therefore requests that the AESO provide more specific guidance on what it believes the capacity market should accomplish and consider stakeholder comments on the issue.</p>
<b>Key design questions for capacity market development</b>  <i>Slides 8 – 11</i>	<p>Is the preliminary list of key design questions an inclusive list? Is it clear what area of capacity market development each question is intending to address? What clarification is required on any of these items? What additional questions or areas, if any, do you think should be added to the list to ensure a comprehensive capacity market design? Please provide as much detail as possible.</p> <ul style="list-style-type: none"> <li>– <i>How much capacity needs to be procured? (Resource adequacy requirement)</i></li> <li>– <i>Who will buy the capacity? (Obligation to procure)</i></li> <li>– <i>When and how often will capacity be purchased? (Procurement timing and frequency)</i></li> <li>– <i>How long will the capacity delivery period be? (Term)</i></li> <li>– <i>Who can provide capacity? How much can they provide?</i></li> </ul>	<p>Enbridge generally agrees with the list of key design questions, but would suggest that the following additional questions/areas be added to the list:</p> <ul style="list-style-type: none"> <li>• How will seasonality be addressed?</li> <li>• What role will renewables play?</li> <li>• How will capacity attributes (e.g. flexibility, ramp rate) be handled?</li> </ul> <p>Enbridge also note that the answer to any one question (i.e. the approach selected for one particular issue) will in many cases impact how other issues should be addressed. Consequently, the questions cannot be considered or answered in isolation.</p>

Section	Approach	Stakeholder Response
	<p><i>(Eligibility)</i></p> <ul style="list-style-type: none"> <li>– <i>How do we know that capacity has been provided? (Performance assessments)</i></li> <li>– <i>How will the capacity market work? (Market mechanics)</i></li> <li>– <i>How will capacity providers be paid? How will capacity costs be allocated? (Capacity market settlement)</i></li> <li>– <i>How will the capacity market impact the energy and ancillary services markets? (Inter-operability implications)</i></li> </ul>	
<b>Design dependencies and sequencing</b>  <i>Slide 12</i>	<p>What additional information do you require regarding sequencing? Do you agree with dependencies between design elements and the proposed sequencing of the design? Is there an alternative sequencing that should be followed? Is there a different approach entirely that should be considered? Please provide reasons for your response.</p>	<p>As alluded to above, Enbridge believes that many of the design elements will be interrelated. For instance, eligibility decisions will be inextricably linked with performance assessment decisions. Accordingly, the AESO's approach to consultation may need to be somewhat flexible and iterative (and should not be too rigid in treating design elements as "watertight compartments" to be dealt with in isolation).</p>
<b>Capacity market development roadmap</b>  <i>Slide 13</i>	<p>What additional questions or clarification do you have regarding the roadmap? Do you have any issues or concerns with the proposed roadmap for designing and implementing the capacity market? Are there items or considerations missing from the roadmap?</p>	<p>Slide 13 appears to presuppose that "First Procurement" will occur approximately two years prior to "First Delivery". Please clarify whether the timeline would be adjusted based on decisions on procurement structure and timelines.</p>
<b>AESO Consultation Principles</b>  <i>Slide 15</i>	<p>Do you have any questions regarding the AESO's consultation principles as they pertain to development of the capacity market? Are there additional concepts or principles which should be considered? Please provide reasons for your response.</p>	<p>No comment.</p>

Section	Approach	Stakeholder Response
<b>Proposed approach to answering key design questions</b>  <i>Slides 16 – 17</i>	<p>What clarification or additional information do you require regarding the proposed approach?</p> <p>Do you support the two-stage iterative process proposed for the capacity market design?</p> <p>Do you agree this process will deliver an inclusive, timely, efficient, cohesive and comprehensive design?</p> <p>Do you think that the process will result in the expected benefits listed?</p> <p>Are there modifications to this approach that would improve its effectiveness?</p> <p>Is there an alternative consultation approach you would like us to consider and why? Please describe the alternative in as much detail as possible.</p>	<p>Please clarify whether the AESO anticipates that the market design changes (a) will be implemented through ISO rules or tariff changes (and therefore subject to review by the Alberta Utilities Commission (“<b>AUC</b>”) before implementation), or (b) will be pursued via legislative changes or other means that would not result in the changes being subject to AUC review.</p>
<b>Design Alternatives Sheets</b>  <i>Slide 18</i>	<p>Do you have any comments regarding the proposed purpose, structure or content for of the proposed design documentation?</p>	<p>No comment.</p>
<b>Term Sheets</b>  <i>Slide 19</i>	<p>Do you have any comments regarding the proposed purpose, structure or content for of the proposed design documentation?</p>	<p>No comment.</p>
<b>Design development steps</b>  <i>Slide 20</i>	<p>Do you have any questions regarding the proposed steps?</p> <p>Do you support the proposed design development process?</p> <p>What should be considered before a design component moves to the stage of being drafted into legal language?</p>	<p>No comment.</p>

## Capacity Market Criteria

*Please indicate in your response whether you support the following market criteria and provide reasons for your position.*

Section	Subject	Stakeholder Response
<b>Potential criteria for supply adequacy and reliability</b> Slide 22	Do you support the following criteria regarding the supply adequacy and reliability category? Please explain.  <i>The capacity market should achieve desired reliability objectives by creating a real and measurable supply adequacy product.</i>	Enbridge generally supports this objective, but believes it is necessary to clarify what “desired reliability objectives” means.
<b>Potential criteria for supply adequacy and reliability</b> Slide 22	Do you support the following criteria regarding the supply adequacy and reliability category? Please explain.  <i>The capacity market should contribute to the reliable operation of the electricity grid and implementation should be consistent with, and complementary to, other measures aimed at ensuring reliability.</i>	Yes. This criteria supports Enbridge’s views that (1) individual capacity market design questions are interrelated and therefore cannot be considered in isolation, and (2) the impact of the capacity market on, and the need for changes to, the energy and ancillary services markets must be considered in concert with capacity market design.
<b>Potential criteria for supply adequacy and reliability</b> Slide 22	Are there additional criteria which should be included in this category?	No comment.
<b>Potential criteria for the capacity market</b> Slide 23	Do you support the following criteria regarding the market category? Please explain.  <i>The capacity market should be fair, efficient, and openly competitive.</i>	Yes.
<b>Potential criteria for the capacity</b>	Do you support the following criteria regarding the market category? Please explain.	Enbridge supports this criteria, provided that market-based mechanisms and the competitive market include flexibility for procurement through

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<b>market</b> <i>Slide 23</i>	<i>The procurement of capacity should employ market-based mechanisms and a competitive market for capacity should be developed.</i>	bilateral mechanisms.
<b>Potential criteria for the capacity market</b> <i>Slide 23</i>	Do you support the following criteria regarding the market category? Please explain.  <i>A wide variety of technologies should be able to compete to provide capacity.</i>	Enbridge supports this criteria, assuming it is recognized that different generation sources have different characteristics and benefits, and that Alberta electricity market overall (i.e. the energy, ancillary services and capacity market) should appropriately value those different sources and their respective benefits.
<b>Potential criteria for the capacity market</b> <i>Slide 23</i>	Do you support the following criteria regarding the market category? Please explain.  <i>Capacity market mechanisms, outcomes and relevant data should be transparent.</i>	Enbridge supports this criteria, recognizing that there may be appropriate limits on bilateral market data transparency.
<b>Potential criteria for the capacity market</b> <i>Slide 23</i>	Do you support the following criteria regarding the market category? Please explain.  <i>There should be a well-defined product and an effective and efficient capacity price signal.</i>	Enbridge supports this criteria.
<b>Potential criteria for the capacity market</b> <i>Slide 23</i>	Are there additional criteria which should be included in this category?	No comment.



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<b>Potential criteria for costs and risk</b>  <i>Slide 24</i>	<p>Do you support the following criteria regarding the costs and risks category? Please explain.</p> <p><i>Long-term investment risks should continue to be largely borne by investors rather than consumers.</i></p>	<p>Not necessarily. Enbridge believes that, as a general proposition, risks should be allocated to the parties that are best positioned to manage them. The capacity market appears to be a response to a non-market intervention in the energy-only market (i.e. the government-mandated addition of significant quantities of intermittent supply that would not have been added to the market without such intervention). The capacity market, in concert with the energy and ancillary services markets, should create an overall price signal to support appropriate new investments, while being mindful of investors who invested under a previous set of rules. Asking long-term investors to bear significant change in law or market redesign risk will undermine new investment (or result in unnecessarily high costs).</p>
<b>Potential criteria for costs and risk</b>  <i>Slide 24</i>	<p>Do you support the following criteria regarding the costs and risks category? Please explain.</p> <p><i>The capacity market should instil investor confidence and should result in private investment.</i></p>	<p>Enbridge generally supports this criteria, but notes that investor confidence will also depend on the interaction of the capacity market with the energy and ancillary services markets, so it is necessary to consider the overall Alberta electricity market. Enbridge believes that the overall Alberta electricity market should be designed to promote investment in supply that will most efficiently fulfill the needs of load over the long term, having regard for all attributes of supply including price and availability.</p>
<b>Potential criteria for costs and risk</b>  <i>Slide 24</i>	<p>Do you support the following criteria regarding the costs and risks category? Please explain.</p> <p><i>There should be an effective balance between capacity cost and supply adequacy.</i></p>	<p>Enbridge believes that Alberta's overall electricity market (including the energy, ancillary services and capacity markets) should be designed to promote investment in supply that will most efficiently fulfill the needs of load, having regard for all attributes of supply including price and availability.</p>
<b>Potential criteria for costs and risk</b>  <i>Slide 25</i>	<p>Do you support the following criteria regarding the costs and risks category? Please explain.</p> <p><i>The term of the capacity obligation should be as short as possible while ensuring supply adequacy objectives are</i></p>	<p>Enbridge does not necessarily support this criteria. While shorter-term approaches may incentivize continued operations, they may not provide appropriate incentives for longer-term investments that might be more efficient in fulfilling market needs over the long term. Supply adequacy should be a long-term goal. It does not seem appropriate from the outset</p>

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	<i>achieved.</i>	to assume that minimizing the term of a capacity obligation will be necessary or desirable.
<b>Potential criteria for costs and risk</b>  <i>Slide 25</i>	Do you support the following criteria regarding the costs and risks category? Please explain.  <i>Reasonable capacity costs for consumers should be achieved through effective competition and administratively determined prices should be avoided.</i>	Enbridge supports this criteria.
<b>Potential criteria for costs and risk</b>  <i>Slide 24</i>	Do you support the following criteria regarding the costs and risks category? Please explain.  <i>The design should provide mechanisms for consumers to hedge the cost of capacity if and where appropriate.</i>	Enbridge strongly supports this criteria (particularly insofar as it contemplates bilateral market options for load).
<b>Potential criteria for costs and risk</b>  <i>Slides 24 – 25</i>	Are there additional criteria which should be included in this category?	No comment.
<b>Potential criteria for flexibility</b>  <i>Slide 26</i>	Do you support the following criteria regarding the category of flexibility? Please explain.  <i>Unique aspects of Alberta's electricity system should be considered in the design of the capacity market (e.g. nature of load/generation, levels of cogeneration, limited interties, large geographic area, etc.).</i>	Enbridge supports this criteria.
<b>Potential criteria for flexibility</b>  <i>Slide 26</i>	Do you support the following criteria regarding the category of flexibility? Please explain.  <i>The capacity market should be compatible with other</i>	Enbridge strongly supports the initial portion of the statement (i.e. "[t]he capacity market should be compatible with other components of the electricity framework"), but has concerns with the later portion of the statement. Consistency in the market rules are required to promote



Section	Subject	Stakeholder Response
	<i>components of the electricity framework, and should be robust and adaptable to different government policy initiatives related to the electricity sector.</i>	<p>efficient long-term investments. If investors are to bear the bulk of long-term investment risks, those investors will require predictability. Otherwise, investments will only proceed with significant risk premiums (which premiums would result in unnecessary increases in the cost of energy in Alberta).</p> <p>While Enbridge recognizes that the AESO does not control government policy initiatives, it should be common ground that parties are working to (1) achieve a well-designed market, and (2) limit ex-post facto changes to the market framework under which investments are or have been made.</p>
<b>Potential criteria for flexibility</b>  <i>Slide 26</i>	Are there additional criteria which should be included in this category?	No comment.
<b>Potential criteria for timely development</b>  <i>Slide 27</i>	Do you support the following criteria regarding the timely development category? Please explain.  <i>Market should be targeted to open in 2019 for start of first capacity procurement.</i>	Enbridge is supportive of the 2019 target, provided that target is not used to bypass consultation and consideration of stakeholder views. Getting it right (and minimizing the need for re-design) should be more important than having something by 2019.
<b>Potential criteria for timely development</b>  <i>Slide 27</i>	Do you support the following criteria regarding the timely development category? Please explain.  <i>The initial degree of change to the current energy and ancillary service market should be minimized.</i>	Enbridge does not necessarily support this criteria. Whatever needs to be changed should be changed. As noted above, Enbridge believes that (1) the impact of the capacity market on, and the need for changes to, the energy and ancillary services markets must be considered in concert with capacity market design, and (2) the goal should be to “get it right” the first time.
<b>Potential criteria for timely development</b>  <i>Slide 27</i>	Do you support the following criteria regarding the timely development category? Please explain.  <i>Simple and straightforward implementation should be a priority.</i>	Enbridge does not necessarily support this criteria, and believes that it may not be reconciled with other criteria. Specifically, going for “simple and straightforward” may well mean choosing more administratively determined outcomes, but those outcomes would tend to be contrary to a fair, efficient and openly competitive market. Again, Enbridge believes the goal should be to “get it right”.

Section	Subject	Stakeholder Response
<b>Potential criteria for timely development</b>  <i>Slide 28</i>	<p>Do you support the following criteria regarding the timely development category? Please explain.</p> <p><i>To the extent a staged implementation is pursued, the expected timing and nature of future changes should be provided.</i></p>	Enbridge supports this criteria.
<b>Potential criteria for timely development</b>  <i>Slide 28</i>	<p>Do you support the following criteria regarding the timely development category? Please explain.</p> <p><i>The risks of regulatory delay and need for re-design should be minimized.</i></p>	Enbridge is unclear what “risks of regulatory delay” are referenced. If “regulatory delay” refers to obtaining AUC approval for changes to ISO rules or the AESO Tariff required to implement the capacity market and related changes, Enbridge believes that an AUC approval process is appropriate step in the process and should be factored into the timeline.
<b>Potential criteria for timely development</b>  <i>Slide 28</i>	<p>Do you support the following criteria regarding the timely development category? Please explain.</p> <p><i>Best practices and lessons learned from other capacity market implementations should be leveraged as much as possible.</i></p>	Enbridge supports this criteria, provided that Alberta-specific characteristics are also considered and addressed.
<b>Potential criteria for timely development</b>  <i>Slides 27 - 28</i>	Are there additional criteria which should be included in this category?	No comment.
<b>General feedback regarding criteria</b>  <i>Slides 21 – 28</i>	<p>Are there additional categories of criteria which should be considered?</p> <p>Do you require additional explanation or have questions regarding any of the categories or criteria?</p> <p>Do you think all criteria are equally important or should some take precedence over others?</p>	No comment.

## Capacity Market Assumptions

*Please indicate in your response whether you support adopting the following starting assumptions and provide reasons for your position.*

Item	Assumption	Stakeholder Response
1 Slide 30	Do you support adopting the following assumption? Please explain. <i>A capacity obligation is a forward physical obligation on capacity suppliers that requires the capacity sold in the capacity market to be available to provide energy when needed. This obligation is created when the supplier's offer is cleared in the capacity market.</i>	Enbridge supports this assumption.
2 Slide 30	Do you support adopting the following assumption? Please explain. <i>All existing capacity "must offer" their eligible capacity to the capacity market. Planned capacity must offer for the delivery year they are connected.</i>	Enbridge does not fully support this assumption. The unique characteristics of supply sources (generation, interties/imports) will need to be considered. Must offer obligations will also need to be considered in concert with potential performance assessments. Additionally, rigid must offer obligations could be problematic for new facilities in their first year of operations (due to the potential for in-service date delays outside of the control of the proponents of the new facilities).
3 Slide 30	Do you support adopting the following assumption? Please explain. <i>The capacity market will be designed as a single zone with the capability of adding zones should it be required due to a change in transmission policy or other factors.</i>	Enbridge generally supports this assumption, but suggests that the AESO may wish to consider a periodic re-evaluation on the need for more than one zone. Additionally, Enbridge notes that the market should provide a locational signal to promote efficient generation investment. If a single zone approach is adopted initially, it will be necessary to consider the need for changes to other existing mechanisms, or the creation of new mechanisms, to provide appropriate locational signals to generators and address congestion issues on the AIES.
4 Slide 31	Do you support adopting the following assumption? Please explain. <i>The resource adequacy requirement for Alberta will be centrally determined.</i>	Enbridge generally supports this assumption.

Item	Assumption	Stakeholder Response
5 Slide 31	Do you support adopting the following assumption? Please explain. <i>The capacity market is intended to ensure supply adequacy. Other attributes such as carbon output, total capacity factor, ramp flexibility, energy production costs, etc., are not considered within the capacity market.</i>	While it may be appropriate to design the capacity market in that manner, Enbridge believes it is still necessary to consider whether the overall Alberta electricity market (including the energy, ancillary services and capacity markets) will promote investment in supply that will most efficiently fulfill the needs of load, having regard for all attributes of supply including price and availability. For instance, it may be appropriate to consider difference tranches of capacity to ensure that base load and peaking capacity needs are efficiently met and increasing quantities of intermittent generation can be efficiently managed.
6 Slide 31	Do you support adopting the following assumption? Please explain. <i>Capacity and energy/ancillary services are separate products, and are procured independently.</i>	While Enbridge recognizes that the capacity, energy-only and ancillary services markets are different product markets, Enbridge believes the markets are interrelated and any one of those markets cannot be designed in isolation.
7 Slide 32	Do you support adopting the following assumption? Please explain. <i>Participants do not need to be successful in the capacity market to participate in the energy and ancillary service markets.</i>	Enbridge supports this assumption.
8 Slide 32	Do you support adopting the following assumption? Please explain. <i>While receiving support payments, Renewable Electricity Program (REP) round 1 winners are not eligible to sell REP capacity in the capacity market owing to the Indexed REC payment mechanism chosen.</i>	Enbridge supports this assumption.
9 Slide 32	Do you support adopting the following assumption? Please explain. <i>Capacity market mechanics/behaviour will have regulatory oversight. Market outcomes will be the result of market clearing, unless otherwise demonstrated.</i>	Enbridge supports this assumption.
<b>General feedback regarding assumptions</b>	Are there additional assumptions which should be considered?  Do you require additional explanation or have questions regarding any of the assumptions?	No comment.



# General Feedback

*Please provide as much detail as possible in your responses below.*

Section	Subject	Stakeholder Response
<b>Next Steps</b> <i>Slides 33 – 34</i>	<p>Please provide any general feedback you have regarding the January 12/16 AESO presentation content or format.</p> <p>Please provide any general feedback you have regarding formats for future materials or stakeholder sessions.</p>	<p>Enbridge requests that the AESO provide “dial in” or other remote attendance options for all sessions in advance of those sessions (to enable stakeholder personnel who may be located outside of Calgary and Edmonton to participate in future meetings).</p>
<b>Next Steps</b> <i>Slides 33 – 34</i>	<p>Please provide any feedback you have regarding next steps in the capacity market development process.</p>	<p>No comment.</p>
<b>Next Steps</b> <i>Slides 33 – 34</i>	<p>Assuming criteria, assumptions, key questions, sequencing and stakeholder approach are finalized, do you agree that next steps are to begin consultation on the first detailed design components? Do you agree that these items need to be resolved before detailed design components begin to be addressed?</p> <p>Other than the items listed above, do other topics need to be discussed or addressed, or other information provided, before detailed design discussions begin?</p>	<p>No comment.</p>
<b>General Information</b>	<p>Please provide any additional comments or information regarding topics which you think are relevant but have not been specifically addressed above.</p>	<p>No comment.</p>