

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>	Contact: <u>Richard Penn</u>
Period of Comment: <u>January 20, 2017</u> through <u>February 10, 2017</u>	Phone: <u>403 903 7693</u>
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Date [yyyy/mm/dd]: <u>2017/01/20</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
<p>Proposed desired end state of capacity market development</p> <p>Slide 7</p>	<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>IPCAA welcomes the fact that the AESO will be using competitive market forces to ensure adequacy and reliability.</p> <p>IPCAA also welcomes the fact that the AESO recognizes the magnitude of the intermittent renewable assets penetration as well as the size and structure of Alberta’s electricity industry.</p> <p>IPCAA is concerned over the term “reasonable cost”, an advantage for Alberta has been the concern to ensure a competitive cost environment rather than simply a “reasonable” cost.</p>
<p>Key design questions for capacity market development</p> <p>Slides 8 – 11</p>	<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"> – <i>How much capacity needs to be procured? (Resource adequacy requirement)</i> – <i>Who will buy the capacity? (Obligation to procure)</i> – <i>When and how often will capacity be purchased? (Procurement timing and frequency)</i> – <i>How long will the capacity delivery period be? (Term)</i> – <i>Who can provide capacity? How much can they provide?</i> 	<p>IPCAA is concerned with respect to the operability of the market considering the significant proposed size of the intermittent renewable assets. IPCAA is concerned that the design may not incent the type of flexible dispatchable generation resources to ensure an efficient operable system.</p> <p>To gain the flexible assets that will be required to ensure reliability, IPCAA submits that changes will be required to the energy and ancillary services markets while the capacity market is being designed and implemented. These changes to the energy and ancillary services markets will be needed to expose value of flexible (i.e. ramping) resources. Potential design questions could be:</p> <ul style="list-style-type: none"> – <i>How will the capacity market design expose the value of flexible resources needed to integrate the desired level of intermittent resources?</i>

Section	Approach	Stakeholder Response
	<p><i>(Eligibility)</i></p> <ul style="list-style-type: none"> – <i>How do we know that capacity has been provided? (Performance assessments)</i> – <i>How will the capacity market work? (Market mechanics)</i> – <i>How will capacity providers be paid? How will capacity costs be allocated? (Capacity market settlement)</i> – <i>How will the capacity market impact the energy and ancillary services markets? (Inter-operability implications)</i> 	<ul style="list-style-type: none"> – <i>Will the energy and ancillary services markets be redesigned to expose the value of flexible resources needed to integrate the desired level of intermittent resources?</i>
<p>Design dependencies and sequencing</p> <p><i>Slide 12</i></p>	<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>It would be useful for consumers to better understand their capacity obligations earlier on in the process than the “Settlement and Credit” phase. Without that understanding, it will be difficult for consumers to provide clear feedback on both the design of the capacity market and the capacity products they may provide. Particularly since they will not be able to analyze the implications.</p>
<p>Capacity market development roadmap</p> <p><i>Slide 13</i></p>	<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>This is a fairly high level roadmap. IPCAA has no comments at this time.</p>
<p>AESO Consultation Principles</p> <p><i>Slide 15</i></p>	<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>IPCAA is concerned that with the proposed stakeholder process, the consumer perspective will be under-represented. Based on the size of the interest associated with a transition to a capacity market, (including around 300 people at the first Calgary meeting alone), major Alberta customers views may be overwhelmed. The concept of a steering committee may be useful to more easily integrate stakeholders issues.</p>

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<p>Proposed approach to answering key design questions</p> <p><i>Slides 16 – 17</i></p>	<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>It would be useful to better understand the two-stage iterative process. There was insufficient detail in the slides or explanation provided.</p> <p>The AESO should consider implementing a steering committee to simplify the stakeholder feedback process. There are many, many stakeholders and a steering committee could aid in ensuring all the voices are heard.</p> <p>IPCAA submits that it would be useful to have a steering committee to quickly vet the proposals prior to broader market stakeholdering. At the same time such a steering committee could help ensure the final capacity market achieves its envisaged purpose.</p>
<p>Design Alternatives Sheets</p> <p><i>Slide 18</i></p>	<p>Do you have any comments regarding the proposed purpose, structure or content for of the proposed design documentation?</p>	<p>More information would be helpful.</p>
<p>Term Sheets</p> <p><i>Slide 19</i></p>	<p>Do you have any comments regarding the proposed purpose, structure or content for of the proposed design documentation?</p>	<p>More information would be helpful.</p>
<p>Design development steps</p> <p><i>Slide 20</i></p>	<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>Is there an off-ramp for issues that are deemed government policy decisions?</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
Potential criteria for supply adequacy and reliability 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>	IPCAA supports the AESO's criteria.
Potential criteria for supply adequacy and reliability 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>	IPCAA supports the AESO's criteria.
Potential criteria for supply adequacy and reliability Slide 22	Are there additional criteria which should be included in this category?	<p>IPCAA submits that operability should be included. The upcoming increase of intermittent renewable generation in Alberta and the potential lack of the flexibility of the capacity resources contracted, could result in operability issues for the Alberta electricity system. One group of industrial customers that may be particularly concerned is industrial facilities with co-generation. These entities may have new risks to their operation if the operability criteria is not considered carefully.</p> <p>Consultation with with impacted sectors ie the oilsands and SAGD is critical to help the AESO understand the importance of operability and how cogen can the assist while not financially or operationally impacting these sectors.</p>
Potential criteria	Do you support the following criteria regarding the market	IPCAA supports the AESO's criteria.

Section	Subject	Stakeholder Response
for the capacity market Slide 23	category? Please explain. <i>The capacity market should be fair, efficient, and openly competitive.</i>	
Potential criteria for the capacity market Slide 23	Do you support the following criteria regarding the market category? Please explain. <i>The procurement of capacity should employ market-based mechanisms and a competitive market for capacity should be developed.</i>	IPCAA supports the AESO's criteria and submits that competitive, market-based approaches are preferred.
Potential criteria for the capacity market Slide 23	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>	IPCAA supports the AESO's criteria, and submits that industrial consumers are expecting market-based competition to provide capacity. IPCAA agree's that the capacity market design should be agnostic to technology type, rather should simply focus on competitive MW's provided.
Potential criteria for the capacity market Slide 23	Do you support the following criteria regarding the market category? Please explain. <i>Capacity market mechanisms, outcomes and relevant data should be transparent.</i>	IPCAA supports the AESO's criteria.
Potential criteria for the capacity market Slide 23	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>	IPCAA supports the AESO's criteria.

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Potential criteria for the capacity market Slide 23	Are there additional criteria which should be included in this category?	Operability is of great concern to IPCAA members. Operability refers to the ability of the AESO to operate the system and respond in real-time in to changes in system conditions. In Ontario for example the IESO achieves operability at times by “spilling” wind, hydroelectric or nuclear resources to maintain an operable system.
Potential criteria for costs and risk Slide 24	Do you support the following criteria regarding the costs and risks category? Please explain. <i>Long-term investment risks should continue to be largely borne by investors rather than consumers.</i>	IPCAA supports the AESO’s criteria. The seminal point of the Alberta market is investors are taking the financial risk, not consumers. IPCAA submits this is a key design principle to a successful capacity market.
Potential criteria for costs and risk Slide 24	Do you support the following criteria regarding the costs and risks category? Please explain. <i>The capacity market should instil investor confidence and should result in private investment.</i>	IPCAA supports the AESO’s criteria. The Alberta market is based upon investors taking the financial risk, not consumers. IPCAA submits this is a key design principle to a successful capacity market.
Potential criteria for costs and risk Slide 24	Do you support the following criteria regarding the costs and risks category? Please explain. <i>There should be an effective balance between capacity cost and supply adequacy.</i>	This depends on what is meant by “effective balance”. In some capacity markets this implies a sloping demand curve for Capacity.
Potential criteria for costs and risk Slide 25	Do you support the following criteria regarding the costs and risks category? Please explain. <i>The term of the capacity obligation should be as short as possible while ensuring supply adequacy objectives are achieved.</i>	IPCAA supports the AESO’s criteria, emphasizing that risk should rest with the investor, not the consumer.
Potential criteria	Do you support the following criteria regarding the costs and	IPCAA supports the AESO’s criteria. The belief that competition will

Section	Subject	Stakeholder Response
for costs and risk Slide 25	risks category? Please explain. <i>Reasonable capacity costs for consumers should be achieved through effective competition and administratively determined prices should be avoided.</i>	deliver the lowest total cost, inclusive of the risk premium , has been a tenet of the Alberta electricity market.
Potential criteria for costs and risk Slide 24	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>	IPCAA supports the AESO's criteria. Consumers should be able to self-supply, or hedge their capacity.
Potential criteria for costs and risk Slides 24 – 25	Are there additional criteria which should be included in this category?	See comments on operability above. Operability is of great concern to IPCAA members.
Potential criteria for flexibility Slide 26	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>	IPCAA supports the AESO's criteria.
Potential criteria for flexibility Slide 26	Do you support the following criteria regarding the category of flexibility? Please explain. <i>The capacity market should be compatible with other components of the electricity framework, and should be robust and adaptable to different government policy initiatives related to the electricity sector.</i>	IPCAA supports the AESO's criteria.

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Potential criteria for flexibility <i>Slide 26</i>	Are there additional criteria which should be included in this category?	See comments on operability above. Operability is of great concern to IPCAA members.
Potential criteria for timely development <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>	This timing has been discussed publicly. IPCAA submits that the AESO should be consistent and transparent on timing.
Potential criteria for timely development <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>	IPCAA does not support the AESO's criteria. While there may be a hope to minimize impacts on energy and ancillary markets, IPCAA envisages that changes will be required to expose value to incent new flexible resources in the capacity market. These markets typically work in concert to induce the right mix of generation resources.
Potential criteria for timely development <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>	IPCAA supports the AESO's criteria, keeping in mind that in some areas, simplicity alone will not generate the desired outcome (see comments on energy and ancillary services market above).
Potential criteria for timely development <i>Slide 28</i>	Do you support the following criteria regarding the timely development category? Please explain. <i>To the extent a staged implementation is pursued, the expected timing and nature of future changes should be provided.</i>	IPCAA supports the AESO's criteria. In order to instill investor confidence and enhance competitiveness, transparency on future changes / upgrades will be required.

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Potential criteria for timely development <i>Slide 28</i>	Do you support the following criteria regarding the timely development category? Please explain. <i>The risks of regulatory delay and need for re-design should be minimized.</i>	IPCAA supports the AESO's criteria. A complete, early and transparent process should be used to eliminate re-design and regulatory risks,
Potential criteria for timely development <i>Slide 28</i>	Do you support the following criteria regarding the timely development category? Please explain. <i>Best practices and lessons learned from other capacity market implementations should be leveraged as much as possible.</i>	IPCAA supports the AESO's criteria that lessons learned is critical, although recognition has to be made of: <ul style="list-style-type: none"> • The size of the proposed penetration of intermittent renewables in the Alberta market, which is certainly larger than the other capacity markets; and • The level of inter-ties between other markets to enhance reliability, compared to Alberta.
Potential criteria for timely development <i>Slides 27 - 28</i>	Are there additional criteria which should be included in this category?	No additional criteria at this time.
General feedback regarding criteria <i>Slides 21 – 28</i>	Are there additional categories of criteria which should be considered? Do you require additional explanation or have questions regarding any of the categories or criteria? Do you think all criteria are equally important or should some take precedence over others?	IPCAA has concerns over the ability to stakeholder in the proposed manner, with so many divergent opinions. Not all criteria are equally important. Criteria related to costs and risks are particularly important to industrial consumers.

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>	IPCAA supports adopting the AESO's 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>	IPCAA supports adopting the AESO's assumption.
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>	What is the rationale for not considering zonal or nodal pricing?
4 Slide 31	Do you support adopting the following assumption? Please explain. <i>The resource adequacy requirement for Alberta will be centrally determined.</i>	This is a fair assumption. Resource adequacy is generally centrally determined. The issue will be how to determine that the resource adequacy is not over-forecast (or under-forecast for that matter). What will the checks and balances be?
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>	This is a very narrow approach. The capacity market, along with the other electricity markets (energy, ancillary services) needs to deliver reliable, cost-effective electricity to consumers – and if other policy objectives conflict with the capacity market design, this will be an issue. Better to address it in advance.

Item	Assumption	Stakeholder Response
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>	IPCAA supports adopting the AESO's assumption. However, there will need to be changes to the energy and ancillary services markets in order to enable the capacity market to procure the optimal supply mix for Alberta, given our policy objectives.
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>	IPCAA supports adopting the AESO's 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>	IPCAA supports adopting the AESO's 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>	IPCAA supports adopting the AESO's assumption.
General feedback regarding assumptions	<p>Are there additional assumptions which should be considered?</p> <p>Do you require additional explanation or have questions regarding any of the assumptions?</p>	Not at this time.

General Feedback

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

Section	Subject	Stakeholder Response
Next Steps <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>See steering committee recommendation below.</p>
Next Steps <i>Slides 33 – 34</i>	<p>Please provide any feedback you have regarding next steps in the capacity market development process.</p>	<p>The AESO should consider implementing a steering committee to simplify the stakeholder feedback process. There are many, many stakeholders and a steering committee could aid in ensuring all the voices are heard.</p> <p>The AESO should consider accompanying their upcoming Design Alternatives and Term Sheets.papers with technical workshops – for better understanding of the subject matter and lessons learned from other markets.</p>
Next Steps <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>IPCAA agrees that next steps are to begin consultation on the first detailed design components, once the criteria, assumptions, key questions, sequencing and stakeholder approach are finalized. IPCAA notes that the AESO should not leave settlement until the end of the design process. Consumers need to better understand their capacity obligations earlier on in the process.</p>
General Information	<p>Please provide any additional comments or information regarding topics which you think are relevant but have not been specifically addressed above.</p>	<p>Comments have been addressed above.</p>