Stakeholder Comment Matrix

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

Date of Request for Comment: February 10, 2017	**Contact:** Surendra Singh
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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
Proposed desired end state of capacity market development *Slide 7*	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. *"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."*	We propose the following alternative wording for the desired end state: "*The desired end state is to develop a capacity market that utilizes competitive market forces, ensures continued supply adequacy and reliability at the lowest reasonable cost over the long term, and reflects the unique aspects of Alberta's electricity system."* Key differences with the current draft statement are: • "Lowest reasonable cost" not just "reasonable cost" is a better goal from a consumer standpoint and a well-used regulatory concept, • Reference to "long term" helps to ensure proper thought goes into the long term costs and benefits of the system, • Reflecting the unique aspects of Alberta's "electricity system" vs "electricity industry" is a term more inclusive of all stakeholders including consumer requirements, • Eliminate reference to "flexibility"; see discussion below.
Key design questions for capacity market development *Slides 8 – 11*	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. – *How much capacity needs to be procured? (Resource adequacy requirement)*	Other key questions for consideration include: • What is the oversight structure for the market? This includes both the process setting up the market rules and changes, as well as ongoing independent evaluation of elements such as the target capacity and the administratively determined demand curve. • How can the capacity market be designed to minimize overall costs including transmission expense? Can economic signals be created to reduce the need for transmission expansion? • How will market power be dealt with? • What is the minimum standard for capacity? Some minimum

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	– *Who will buy the capacity? (Obligation to procure)* – *When and how often will capacity be purchased? (Procurement timing and frequency)* – *How long will the capacity delivery period be? (Term)* – *Who can provide capacity? How much can they provide? (Eligibility)* – *How do we know that capacity has been provided? (Performance assessments)* – *How will the capacity market work? (Market mechanics)* – *How will capacity providers be paid? How will capacity costs be allocated? (Capacity market settlement)* – *How will the capacity market impact the energy and ancillary services markets? (Inter-operability implications)*	standard should be set so that customers do not pay for something that has no value.
Design dependencies and sequencing *Slide 12*	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.	Overall the concept of dividing the design process up into multiple consultation streams seems feasible. A key consideration will be how to revisit conclusions arrived at during consultation on the individual elements. This enures that the design works as a whole and later stages are not sub-optimized due to conclusions that were drawn earlier in the process. The interdependencies between design elements need to be considered. The ability to comment on the overall design should be considered as an additional stream at the end of the process. The development of a “straw dog” in parallel with the sequential consultation process would help to highlight the interdependencies. To aid in the efficiency of the consultation process, streams should be divided up where possible between elements that are of particular interest

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		to loads versus capacity providers. Settlement issues are of primary interest to loads, and will likely have a somewhat different audience than issues relating to how suppliers are paid. Customer settlement issues are fundamental and will also help determine what demand response looks like. These issues should be dealt with earlier in the process at same time as market mechanics. The market mechanics stream seems quite broad and could be split into multiple streams due to the importance of individual elements. For example, the determination of the demand curve will be critical and of particular importance to loads. As mentioned above, oversight is a key issue, and should therefore be added as an additional stream in the consultation process. The energy and ancillary services market impacts should be broadened to look at interconnectedness with other elements of the electricity system including transmission and government programs.
Capacity market development roadmap *Slide 13*	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?	IT system development appears to be occurring fairly early in the process. It is important to ensure that consultations (including any design elements that may need to be revisited) are completed before money is spent on developing IT systems to implement the design.
AESO Consultation Principles *Slide 15*	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.	

Section	Approach	Stakeholder Response
Proposed approach to answering key design questions *Slides 16 – 17*	What clarification or additional information do you require regarding the proposed approach? Do you support the two-stage iterative process proposed for the capacity market design? Do you agree this process will deliver an inclusive, timely, efficient, cohesive and comprehensive design? Do you think that the process will result in the expected benefits listed? Are there modifications to this approach that would improve its effectiveness? Is there an alternative consultation approach you would like us to consider and why? Please describe the alternative in as much detail as possible.	The concept of having Design Alternatives Sheets followed by Term Sheets seems reasonable. Face-to-face engagement opportunities will be key to understanding the AESO's proposals, and understanding what stakeholder feedback was incorporated (or not) and why. It is not clear from the process outlined how much of this type of opportunity the AESO is planning on building into the process. The process contemplates iterating design items individually, but does not show how interdependencies between design elements will be dealt with. This adds risks to ensuring that the design is cohesive and comprehensive. There needs to be additional steps to ensure this critical element is dealt with. It is difficult to pre-judge how well the process will work. There should be opportunities once the process is underway to further comment on how it is working, how it could be improved, and whether there are missing elements.
Design Alternatives Sheets *Slide 18*	Do you have any comments regarding the proposed purpose, structure or content for of the proposed design documentation?	We agree with the idea of the AESO proposing a few design alternatives, as long as the consultation scope is not limited to only picking one of the alternatives. Hybrid options or new alternatives developed through consultation should be in scope.
Term Sheets *Slide 19*	Do you have any comments regarding the proposed purpose, structure or content for of the proposed design documentation?	Continuous feedback as the consultations progress is an important consideration. Consultation should not be limited to one DAS and one term sheet.

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Design development steps *Slide 20*	Do you have any questions regarding the proposed steps? Do you support the proposed design development process? What should be considered before a design component moves to the stage of being drafted into legal language?	The process does not clearly show how interdependencies between design elements will be dealt with and iterated around. This adds risks to ensuring that the design is cohesive and comprehensive. It is possible that the "Gate" step in the process covers this, but it is not clear and no iterative steps are shown to arise from the Gate step. Keeping the overall cohesiveness in mind, do not move too quickly to legal language on any individual element so that the ultimate design becomes unduly influenced by the sequencing of the consultation process. Stakeholders need to have the opportunity to comment on the whole design before turning concepts into legal language becomes the focus.

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. *The capacity market should achieve desired reliability objectives by creating a real and measurable supply adequacy product.*	Yes.
Potential criteria for supply adequacy and reliability *Slide 22*	Do you support the following criteria regarding the supply adequacy and reliability category? Please explain. *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.*	Yes, the capacity market should be consistent with, and complementary to, other measures in a holistic market design. However, issues in today's specific design should not necessarily dictate the design of the capacity market. Examples of such issues include the current lack of a day-ahead energy market and co-optimized energy and ancillary service markets. Existing elements in the market can be changed and a sub-optimal market design should not be developed merely to accommodate existing issues.
Potential criteria for supply adequacy and reliability *Slide 22*	Are there additional criteria which should be included in this category?	Industrial customers should be enabled with the maximum degree of flexibility possible to self-supply capacity. This allows individual customers to determine the reliability and cost tradeoffs that make the most sense for their specific business interests.
Potential criteria for the capacity market *Slide 23*	Do you support the following criteria regarding the market category? Please explain. *The capacity market should be fair, efficient, and openly competitive.*	There are too many potential interpretations to make this a broad statement for the overall capacity market design. Issues arise such as "fair to whom" for example. Existing generators, generators with different operating characteristics, consumers and other market participants will likely have different views. What is seen as fair by one party is not necessarily going to be seen as fair by others.

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		A preferred statement would be: *"The market should be designed to ensure fair treatment for consumers, and avoid the ability to exercise market power."* The criteria as stated by the AESO is better framed as a criteria for competitive behavior when supplying capacity to the market. A workable statement in this context is: *"Competition to supply into the capacity market should be fair, efficient, and openly competitive."*
Potential criteria for the capacity market *Slide 23*	Do you support the following criteria regarding the market category? Please explain. *The procurement of capacity should employ market-based mechanisms and a competitive market for capacity should be developed.*	Yes.
Potential criteria for the capacity market *Slide 23*	Do you support the following criteria regarding the market category? Please explain. *A wide variety of technologies should be able to compete to provide capacity.*	Having a wide variety of technologies in itself should not be a criteria. The market should be structured to be technology neutral with a level playing field, to the greatest degree possible. This allows the market to achieve the lowest reasonable cost for customers.
Potential criteria for the capacity market *Slide 23*	Do you support the following criteria regarding the market category? Please explain. *Capacity market mechanisms, outcomes and relevant data should be transparent.*	Yes.
Potential criteria	Do you support the following criteria regarding the market	Yes.

Section	Subject	Stakeholder Response
for the capacity market *Slide 23*	category? Please explain. *There should be a well-defined product and an effective and efficient capacity price signal.*	
Potential criteria for the capacity market *Slide 23*	Are there additional criteria which should be included in this category?	
Potential criteria for costs and risk *Slide 24*	Do you support the following criteria regarding the costs and risks category? Please explain. *Long-term investment risks should continue to be largely borne by investors rather than consumers.*	What is the difference between “long-term” and “short-term” investment risk that is intended by this statement? In the absence of a reasonable cost qualifier neither this element nor the next on investor confidence stand alone as a criteria. Alternate wording that combines the two is preferred. *The capacity market should instill investor confidence so that investors are willing to bear investment risks at a reasonable cost to consumers.*
Potential criteria for costs and risk *Slide 24*	Do you support the following criteria regarding the costs and risks category? Please explain. *The capacity market should instil investor confidence and should result in private investment.*	See previous comment.
Potential criteria for costs and risk *Slide 24*	Do you support the following criteria regarding the costs and risks category? Please explain. *There should be an effective balance between capacity cost and supply adequacy.*	Yes.

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Potential criteria for costs and risk *Slide 25*	Do you support the following criteria regarding the costs and risks category? Please explain. *The term of the capacity obligation should be as short as possible while ensuring supply adequacy objectives are achieved.*	A short capacity obligation period should not be an objective in its own right. If significantly lower costs can be achieved with longer obligation terms, then they are likely to be in the best interest of consumers. *The term of the capacity market obligations should be set to achieve the best balance of risks and long-term costs for consumers.* In analyzing the risk and cost tradeoffs, a longer term may be appropriate for new versus existing resources.
Potential criteria for costs and risk *Slide 25*	Do you support the following criteria regarding the costs and risks category? Please explain. *Reasonable capacity costs for consumers should be achieved through effective competition and administratively determined prices should be avoided.*	This criteria seems to include two different thoughts. *"Reasonable lowest capacity costs for consumers should be achieved*" is a reasonable stand-alone objective. The guideline for determining whether an administrative price should be set should be related to a failure to achieve fair, efficient, open competition and the exercise of market power.
Potential criteria for costs and risk *Slide 24*	Do you support the following criteria regarding the costs and risks category? Please explain. *The design should provide mechanisms for consumers to hedge the cost of capacity if and where appropriate.*	We are supportive of the idea generally that there should be no barriers to hedging. This can be facilitated by items such as allowing for net settlement, creating market transparency, establishing an index to hedge against, and maintaining stable market rules. The cost allocation methodology adopted will also have an impact on how possible it is for consumers to hedge their exposure.
Potential criteria for costs and risk *Slides 24 – 25*	Are there additional criteria which should be included in this category?	Industrial load should be enabled to procure the level of reliability it values (as facilitated through self-supply or market mechanisms).

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Potential criteria for flexibility *Slide 26*	Do you support the following criteria regarding the category of flexibility? Please explain. *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.).*	Yes, but we do not see this as the same topic as flexibility.
Potential criteria for flexibility *Slide 26*	Do you support the following criteria regarding the category of flexibility? Please explain. *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.*	Market design for adaptability to government policy initiatives is problematic for both suppliers of capacity and consumers. Potential for changes in government policy to simply be absorbed into the market structure without other consideration will drive up the risk premium suppliers embed into their return expectation raising costs for consumers. The potential for these types of changes also make it harder for customers to hedge their risk to capacity market exposures.
Potential criteria for flexibility *Slide 26*	Are there additional criteria which should be included in this category?	
Potential criteria for timely development *Slide 27*	Do you support the following criteria regarding the timely development category? Please explain. *Market should be targeted to open in 2019 for start of first capacity procurement.*	The process and criteria proposed seem to be over-emphasizing the timeline for the first potential auction versus getting things right. The biggest potential benefit to be gained from the capacity market will be to get new capacity built at a reasonable cost. It is not expected that new capacity will be able to participate in a 2019 auction, and new capacity is not likely to be needed until the mid-2020's. The 2019 auction is a "nice to have" so the market is running well by the time new capacity is needed, but getting the design right and inspiring confidence in the long-term stability of the market structure is more important than the 2019 timeline. The timeline criteria should be based foremost around when new

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		capacity is needed not 2019.
Potential criteria for timely development *Slide 27*	Do you support the following criteria regarding the timely development category? Please explain. *The initial degree of change to the current energy and ancillary service market should be minimized.*	It is not worth substantially under-designing the overall market structure and interplays between the capacity, energy, and ancillary services markets to get a capacity auction up and running quickly.
Potential criteria for timely development *Slide 27*	Do you support the following criteria regarding the timely development category? Please explain. *Simple and straightforward implementation should be a priority.*	No. Proper function with no pre-identified shortcomings is more important than an overly simple solution.
Potential criteria for timely development *Slide 28*	Do you support the following criteria regarding the timely development category? Please explain. *To the extent a staged implementation is pursued, the expected timing and nature of future changes should be provided.*	Yes. More certainty is better than less.
Potential criteria for timely development *Slide 28*	Do you support the following criteria regarding the timely development category? Please explain. *The risks of regulatory delay and need for re-design should be minimized.*	Yes. This seems to be in potential conflict with the 2019 timeline. Where does the AESO believe that the priority lies between these two objectives?
Potential criteria for timely development *Slide 28*	Do you support the following criteria regarding the timely development category? Please explain. *Best practices and lessons learned from other capacity market implementations should be leveraged as much as possible.*	Yes, but this should be secondary to recognizing Alberta's unique characteristics in the design.
Potential criteria for timely	Are there additional criteria which should be included in this category?	

Section	Subject	Stakeholder Response
development *Slides 27 - 28*		
General feedback regarding criteria *Slides 21 – 28*	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?	Impartiality and independence of decision making from political interference should be a design criteria. Designing a market that results in the lowest reasonable cost for an acceptable level of risk should take precedence over other criteria. A timeline driven by a 2019 auction date should have the lowest weighting.

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. *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.*	Generally yes, but there should be the ability to financially settle the obligation, and "when needed" needs to be properly defined.
2 *Slide 30*	Do you support adopting the following assumption? Please explain. *All existing capacity "must offer" their eligible capacity to the capacity market. Planned capacity must offer for the delivery year they are connected.*	Participation can only be mandatory if penalties cannot exceed payment. Load customers may have generation to self-supply and be willing to take on a certain level of risk related to that capacity. They should be allowed to make these decisions based on their own best interests. The market should not force a company for example, to invest in a particular level of maintenance costs as a result of a must offer requirement and corresponding operating requirements imposed by the capacity market. This is particularly true if the capacity market has a price cap. What if a unit is mothballed or on an extended outage?
3 *Slide 30*	Do you support adopting the following assumption? Please explain. *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.*	Agree as starting assumption – one market because of size and lack of congestion is currently appropriate.
4 *Slide 31*	Do you support adopting the following assumption? Please explain. *The resource adequacy requirement for Alberta will be centrally determined.*	An industrial load should be enabled ultimately to procure the level of reliability it values (as facilitated through self-supply or market mechanisms).

Item	Assumption	Stakeholder Response
5 *Slide 31*	Do you support adopting the following assumption? Please explain. *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.*	We agree that carbon tax takes care of carbon considerations, and that energy production costs should be taken care of by the energy market. Some minimum standard should be set for the ability of the resource to provide capacity so that customers do not pay for something that has no value.
6 *Slide 31*	Do you support adopting the following assumption? Please explain. *Capacity and energy/ancillary services are separate products, and are procured independently.*	We agree that capacity is a separate product. Co-optimization between energy and ancillary services markets may be beneficial to reduce overall supply costs.
7 *Slide 32*	Do you support adopting the following assumption? Please explain. *Participants do not need to be successful in the capacity market to participate in the energy and ancillary service markets.*	Yes.
8 *Slide 32*	Do you support adopting the following assumption? Please explain. *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.*	We agree as long as this capacity is taken into account in determining procurement requirements, and that no precedent is being set that ultimately leads to a smaller less liquid market. To be clear, if the REP round 1 winners provide capacity value, the AESO should reduce its reserve margin targets accordingly so that customers do not pay for excess capacity.
9 *Slide 32*	Do you support adopting the following assumption? Please explain. *Capacity market mechanics/behaviour will have regulatory oversight. Market outcomes will be the result of market clearing, unless otherwise demonstrated.*	Regulatory oversight is a key design component. This is true both for market participants as well as the AESO. We need to make sure that sufficient elements of the market fall under this auspice including the demand curve, CONE, net CONE, reliability criteria, etc.

General feedback regarding assumptions	Are there additional assumptions which should be considered? Do you require additional explanation or have questions regarding any of the assumptions?	

General Feedback

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

Section	Subject	Stakeholder Response
Next Steps *Slides 33 – 34*	Please provide any general feedback you have regarding the January 12/16 AESO presentation content or format. Please provide any general feedback you have regarding formats for future materials or stakeholder sessions.	
Next Steps *Slides 33 – 34*	Please provide any feedback you have regarding next steps in the capacity market development process.	It would be helpful if the AESO could provide an engagement calendar as soon as possible to aid in planning of resources.
Next Steps *Slides 33 – 34*	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? Other than the items listed above, do other topics need to be discussed or addressed, or other information provided, before detailed design discussions begin?	The initial approach on these items should be decided before proceeding, but the process should be open to revisiting these approaches over time if issues arise. No additionl topics at this time other than those mentioned in the commentary above.
General Information	Please provide any additional comments or information regarding topics which you think are relevant but have not been specifically addressed above.	