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:** Colette Chekerda
Period of Comment: January 17, 2017 through February 10, 2017	**Phone:** 780-920-9399
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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."*	Reasonable cost is a term that requires further clarification. • A key policy requirement for an energy only market was an unconstrained transmission system. With a capacity market, new capacity can be location specific to improve utilization of Alberta's transmission infrastructure. • An outcome of a competitive market should provide reliability at the lowest possible cost. Considering the above, reasonable cost should be modified to say "lowest competitively achieved delivered cost"
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)* – *Who will buy the capacity? (Obligation to procure)*	The questions reflect the key aspects of the capacity market design. An overarching principle of the design should include that the capacity market will be transparent with equal ability (generation and load) to participate with equal rules and compensation. It should also provide for load to be able to self-supply. An additional consideration should be included with respect to transmission infrastructure utilization: for example, are there design criteria that provides a locational signal for capacity such that the existing transmission system is fully utilized before new transmission infrastructure

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	– *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)*	is built. This may include a requirement to allocate incremental system costs to generators that choose to locate in areas of congestion. This is an important and unique feature of the Alberta Electricty market because nearly one third of the existing grid capacity is supplied from resources controlled by load.
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.	A. The question of settlement should be addressed at the onset of the process in 2 areas: 1. Shorter settlement period for the real time market: ADC has long been an advocate for a shorter settlement period (i.e. 15 minutes) for the real time price. A shorter settlement period improves the market efficiency for intermittent and price responsive generation and load. 2. Capacity charges: depending on how the capacity charges are proposed to be allocated, loads may have alternate views of the elements of the capacity market design in particular procurement obligations and how demand response participates. A transparent market would have both sides of the supply-demand balance function under similar, if not identical, guidelines. B. The impact of market design on other reliability products such as

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		ancillary services and LSSI needs to be considered early in the design process.
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?	Questions that arise are: What are the potential risks or issues of a delay? Will the province's reserve margin be adequate if the implementation is delayed into 2021 or 2022? Are there other programs (coal retrofits, renewable procurement, etc.) that could be impacted? Is there an alternative plan?
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.	The consultation principles appear sound. AESO needs to be able to justify decisions from a transparent FEOC perspective. Design decisions should not create windfalls for any stakeholder. The AESO should leverage capacity market experts as much as possible so that collectively we start with design elements that reflect best practices of other markets with equal consideration for generators and loads.
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	A wholey written approach may be limited in fully understanding different design perspectives. A certain amount of direct engagement with knowledgeable stakeholders may enhace the AESO's perspective on impacts of design decisions. Smaller focus groups on a specific topic is a way to further enhance understanding of design decisions and address specific concerns.

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	us to consider and why? Please describe the alternative in as much detail as possible.	
Design Alternatives Sheets *Slide 18*	Do you have any comments regarding the proposed purpose, structure or content for of the proposed design documentation?	Where a design element exits in another capacity market, it should be identified which markets they exist in and the reasons why those markets have implemented those elements. The expected cost, simplicity, & reliability impacts of adoping a certain design element should also be examined.
Term Sheets *Slide 19*	Do you have any comments regarding the proposed purpose, structure or content for of the proposed design documentation?	Term sheets should also identify any necessary changes to legislation or regulations necessary to accommodate the change. Input on the process needs to be cast wide and include all stakeholder types (generation, load, transmission, distribution, renewables, aggregators, retailers, etc.) on the term sheets in order to ensure that all non-AESO parts of the market (legislation, etc.) are considered and all the best functional input has been considered.
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?	Support the development steps. Prior to drafting into legal language, ensure broad stakeholder support has been received to avoid delays in the AUC rules approval process.

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.*	The ADC supports the objective, however, there is a cost to reliability and load does not want to pay for forecast errors or capacity that isn't required. The resource adequacy requirement needs to consider the significant portion of Alberta load that is served by behind the meter generation and that can participate in demand response. As the resource adequacy requirement will be used as the basis for capacity requirements, it is essential to ensure the load forecast is tested to avoid over contracting supply. Propose the load forecast be tested in an AUC proceeding. Agree that real and measurable products are required, and risk of failure to perform should not be borne by load.
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.*	Support, need to ensure that the products are complementary with an objective of lowering overall cost to consumers. The capacity market should recognize the reliability contribution of the tie-lines. The tie-lines should be allowed to participate in the capacity market as other products are already procured by the AESO to provide grid security in the event of a tie-line trip.
Potential criteria for supply adequacy and	Are there additional criteria which should be included in this category?	An additional criteria to include is with respect to the tie-lines and how they are taken into consideration in both the resource adequacy requirement and in the capacity market.

Section	Subject	Stakeholder Response
reliability *Slide 22*		
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.*	This statements need to be taken into consideration for all participants, not just generators. Load should be able to supply capacity shedding abilities into the market, with similar rules, performance testing, and compensation.
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.*	Support. Market based mechanisms and a competitive market will ensure ongoing innovation, efficiency and lower overall costs. All types of capacity should be able to participate on a fair basis.
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.*	Support. However different types of capacity may have different technical capabilities which should be recognized. For example, demand response may be able to be dispatched quickly but may require longer or shorter time frames to remain off line.
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.*	Support, need a robust mechanism for price discovery. For example the onlilne auction for operating reserves enhances competition.
Potential criteria for the capacity market *Slide 23*	Do you support the following criteria regarding the market category? Please explain. *There should be a well-defined product and an effective and efficient capacity price signal.*	Support, transparency, price discovery, and robust participation will be key. Supply and demand need to be able to participate in the market equally, where competitive forces price the value of reliability.

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Potential criteria for the capacity market *Slide 23*	Are there additional criteria which should be included in this category?	The question of self supply, and capacity determined on a net to grid or gross basis is a key design element that needs to be decided at the beginning of the process
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.*	Support. Socializing the cost of bad investments would be detrimental to Alberta's competitiveness. This is a major point of any free market. Investor risk should be not fully borne by the capacity market. There needs to be a balance of risk and opportunity by all parties while simultaneously meeting reliability needs. This market needs to strongly resist the drive for generators to reduce risk by adding more and more complexity to the capacity market as demonstrated in other ISOs. That added complexity disincents smaller participants from entering the market. Consumers need the provision to opt out or self supply in the event capacity costs impact their ability to be competitive in Alberta. For example, cost allocation can not include any type of ratchet mechanism.

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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.*	Policy certainy will instill investor confidence. Alberta was able to successfully attract investment in an energy only market. Long term contracts are not desirable from a consumer prospective. Investor confidence in generation cannot be achieved by creating an environment that causes load to become non-competitive in their respective markets (ie. Trade sensitive industries that can't pass through electricity costs in their products).
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.*	Support, historically this effective balance has been swayed by calls to mitigate risk at the expense of the market, i.e. Bill 50 and the critical transmission infrastructure measures. This needs to be resisted as Alberta's competitiveness relies upon efficient use of capital.
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.*	Support. Large consumers and Albertan's do not want to be forced to enter into any long term requirements for capacity. Consumers pay the costs and ultimately realize the lack of reliability. Upon reaching a certain capacity level (either individually or via aggregation), load should be able to select how much reliability they want for their businesses.
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.*	Reasonable capacity costs need to be defined. Large loads have adapted their operations in the energy only market to be able to avoid high priced hours resulting in lower overall power costs. This was necessary in order to remain competitive. Consumers require the same flexibility to mange their consumption to lower their overall delivered electricity costs. Bilateral contracts and/or opt-out considerations need to be included.

Section	Subject	Stakeholder Response
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.*	Change the verb hedge to manage. Consumers require the abilty to manage , mitigate or eliminate capacity costs with a variety of tools including opting out or self supply
Potential criteria for costs and risk *Slides 24 – 25*	Are there additional criteria which should be included in this category?	Load should have direct involvement in the development of the demand curve parameters and have input into the required level of reliability as any other participant in the market.
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.).*	Support, and include behind the fence generation (not just cogeneration) and price responsive load.
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.*	Support, Government policy initiatives need to support, not restrict, the openness of the capacity market and not inhibit, impair, or add additional costs to achieve non-reliability based policy goals.
Potential criteria for flexibility	Are there additional criteria which should be included in this category?	Possible criteria that addresses how participants participate in the capacity, energy, ancillary services, and LSSi markets.

Section	Subject	Stakeholder Response
Slide 26		
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.*	Design certainty will help both load and generators to make investment decisions.
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.*	ADC suggests that a move to shorter settlement intervals (I.e. 15 minutes or less) would be an improvement to the current energy market. This would provide a truer price signal to generators and price responsive load. A shorter settlement interval is consistent with other energy markets.
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.*	Support. An unnecessarily complicated market will become a barrier to entry and result in higher costs for consumers. The market should be designed such that smaller and less sophisticed participants can readily participate.
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.*	Not clear what staged implementation means, define what this would entail.
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.*	Agreed, this is most likely achieved by getting it right the first time, but need to have flexibility to address unintended consequences in a timely manner.

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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.*	Agreed, but with a caution that what worked well in other markets may not be an appropriate fit for the unique characteristics of the Alberta electricity market. Alberta's current market was designed to provide both efficiency and transparency, and elements of other capacity markets may not fit this goal. It shouldn't be intended (or result in) a revenue windfall for generators. It should incent new investment to provide reliable, long term, and lowest possible cost electricity for all Albertans.
Potential criteria for timely development *Slides 27 - 28*	Are there additional criteria which should be included in this category?	No further comments
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?	Structure of compensation and ability to participate should be based on equitable treatment for load and generation. No other area in the jurisdicitions studied has as much self supply and interruptable load as Alberta and this needs careful consideration in the design process.

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.*	Strongly support. Would suggest that the first sentence be modified to read: *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* (or in the case of load resources, **reduce**) *energy when needed.* Bilateral action of each resource type needs to be recognized.
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.*	Strongly support. Withholding capacity historically has created significant price voliatility and market disruption in other ISOs that in its extreme has caused brownouts and blackouts. Capacity resources, unless retired, must participate in the market. To reiterate this question needs to first consider net or gross capacity and the matter of self-supply.
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.*	Support, however new capacity should optimize the use of the existing transmission system. This may require a stronger locational signal that could include additional zones or cost allocation of additional system requirements on new facilties. This should be addressed in the transmission regulation.
4 *Slide 31*	Do you support adopting the following assumption? Please explain. *The resource adequacy requirement for Alberta will be centrally determined.*	Support, the resource adequacy requirement however needs to be tested in a regulatory process and the capacity auctions need to be held such that forecast errors are minimized and net to grid load changes are accurately reflected.
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.*	The market needs to perform its primary obligation of supplying capacity to the market under the developed rules, with clear delineation between this and energy, ancillary services, and other potential future markets

Item	Assumption	Stakeholder Response
6 *Slide 31*	Do you support adopting the following assumption? Please explain. *Capacity and energy/ancillary services are separate products, and are procured independently.*	Agreed, but the rules need to be allow participation and compensation in multiple products depending on the value you are providing in the market place. This should be appied to demand response and generation
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.*	Support. It is important to note that participants should be required to bid into the capacity market and participate in the energy and ancillary service markets.
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.*	Support, the REP winners should have already reflected their capacity costs in their bid price. Without cancelling their REP contracts, participating in the Capacity market would be paying them twice for the same capacity. Double dipping in any market should not be allowed.
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.*	Request clarification on what “otherwise demonstrated” means.

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?	***No further comments***

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.	The AESO may want to convene a steering committee or focus groups to drill into specific details
Next Steps *Slides 33 – 34*	Please provide any feedback you have regarding next steps in the capacity market development process.	Where detailed understanding of a specific element is required, suggest bringing in industry experts to explain design details and why certain ones may be preferred. I.e. development of the demand curve/ resource adequacy requirement.
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?	None other than items already addressed above.
General Information	Please provide any additional comments or information regarding topics which you think are relevant but have not been specifically addressed above.	ADC represents 9 major transmission connected loads that are price responsive, have behind the meter generation, are self-retailers, represent trade sensitive industries, and are key employers. We offer to work collaboratively with the AESO to ensure load can actively participate and continue to be able to manage electricity costs in order for our businesses to remain competitive in Alberta.