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:** Jason Beblow
Period of Comment: January 17, 2017 through February 10, 2017	**Phone:** (403) 457-4699
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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."*	Yes, we agree with this statement but would expect that the changes to a capacity market would not establish reasonable cost and flexibility through mandated price caps and floors.
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)* – *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) ted to offer into*	Yes, we believe that the list is relatively inclusive, however, we think that some of the questions could be expanded to provide additional clarity. One of the main questions many market participants have concerning the new capacity market is concerning which participants and what type of assets might be included in the capacity markets. So as an explanation to the question "Who can provide capacity?...", additional questions that could be asked are: • What type of assets will be allowed to offer into their capacity market (still to be determined exactly based on existing information available to stakeholders)? • Will any types of assets will be excluded from offering into the capacity market? o coal plants (because of the policy phasing out coal plant generators) o eligibility of load or will a demand response component be incorporated as per other jurisdictions

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	– *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)*	o specifics on Distributed Generation's ability to participate or not based potential design • Will there potentially be incorporation of renewable assets through different capacity instruments? • If not, how will renewables be valued into the capacity market, and will there be different amounts for wind, solar, run of river? • What would be the vintage of "legacy assets" that are permitted to offer into the capacity market, if there is even a limit contemplated • Determination of the eligibility of other assets that have PPA structures in place i.e. potential negotiated agreements for Site C or the proposed Brazeau Pumped Hydro Project • Also, there are functional requirement questions to consider from the retail perspective regarding the billing, settlement, and collection of capacity charges such as; o What will be the process determine the timelines and regulations regarding the changes required to existing invoicing/billing/settlement o Who will pay for these changes and will these costs be eligible for reimbursement through existing regulatory manners • Who will be responsible for the price setting in the capacity market, how will CONE be determined i.e. best in class in AB market today or using some other entities in existing markets to determine these values? • How will the AESO determine estimated Energy Market and Ancillary Services Market pricing as part of this process? • Will there be a price cap for the Capacity Market? The Energy Market? Ancillary Market?

Section	Approach	Stakeholder Response
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.	We agree with the sequencing of the design, although the slide really doesn't indicate anything regarding dependencies and explicitly states that there will be overlap of elements, which we believe is a necessity to complete this process correctly. This slide really doesn't not address dependencies as it is pictured, but the reality is that changes to or development of alternate sequencing or additional steps would be determined based on information gathered during the design phase.
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?	There appears to nothing addressing ancillary system development to support the capacity market such as any retail billing/settlement, potential market transactions that may necessitate IT work. Also, the timelines for the IT work seem quite long and apparently have no schedule risk? If there is no risk in these components, is there any chance these could be compressed?
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.	When the AESO states that the AESO's consultation process and the rationale for the AESO's decisions are transparent – what is going to be the mechanism for stakeholders to determine transparency? Does transparency mean the development of this market will be transparent or just the decisions made/announced through the AESO?
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?	Re clarification, what box in the timeline slide would implementation of design via incorporation into appropriate legal language (e.g. ISO Rules or Tariff, contracts, or Legislation/Regulation) fit into on Slide 12: Potential Design Sequencing? Yes, we support an iterative approach to the market design under the assumption that input from stakeholders will be used to help shape the market. It is hard to say if the process will deliver with an inclusive, timely efficient, cohesive, and comprehensive design as this is a very contentious issue that will have many different stakeholders involved, the reality is that whatever the initial design is, there must be room for movement/changes going forward without major delays or IT changes.

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	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 design will need to have a level of prudency and flexibility that is very well thought out.
Design Alternatives Sheets *Slide 18*	Do you have any comments regarding the proposed purpose, structure or content for of the proposed design documentation?	Will this structure be used to capture every element of the market? If so what is the initial thought on quantity of DA sheets that will be created and will there be a subcomponent to the DAS?
Term Sheets *Slide 19*	Do you have any comments regarding the proposed purpose, structure or content for of the proposed design documentation?	What exactly is the AESO referencing with regards to transactional requirements within the term sheet is this a specific reference to a capacity contract? Also, regarding details around the design choice and its implementation – will there be timelines associated with these?
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?	How many iterations of the DAS and Term Sheet chevrons would be expected to be needed to complete the step as this process, is a big cog of a very time dependent process. Also, are their general timelines for the start/finish of the DAS and Term Sheets within the larger Design sequencing/roadmap. We support the proposed development process as envisioned. We believe that all the potential design sequencing aspects would need to be completed or at the least considered before a design component could be drafted into legal language.

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.*	We support these 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. *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.*	We support these criteria and would be extremely disappointed to see eligibility requirements that included the potential for assets to be included that add to system reliability issues as opposed to the stated objective of being complementary to this focus.
Potential criteria for supply adequacy and reliability *Slide 22*	Are there additional criteria which should be included in this category?	At this time, we do not have any additional criteria to include
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.*	We support these criteria and but would appreciate some extension of this to address who will be policing the market and what type of behaviours would be considered unfair etc. as per the energy market with economic withholding.
Potential criteria for the capacity	Do you support the following criteria regarding the market category? Please explain.	We support these criteria. We believe that there is a belief among many stakeholders that certain developments or projects will be eligible for

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market *Slide 23*	*The procurement of capacity should employ market-based mechanisms and a competitive market for capacity should be developed.*	preferential treatment outside of the standard capacity market developments and therefore would strongly recommend that the only way to procure capacity is through the competitive market with market based pricing with limited use price control mechanisms.
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.*	We support these criteria; however, we believe that only generation technologies that do not strain the reliability goals of the capacity market should be able to provide capacity. We would like to see some methodology that would allow for the inclusion of renewable assets in the market despite their ability to be truly "dispatchable". Or at least a better understanding of how renewables will be priced to fit into the market. This is a very important criterion to define early in the design process as it could have a large impact on the timing and types of projects that will be implemented in the AB market moving forward
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.*	We support these criteria with a focus on explicit transparency of transactions and outcomes especially if it transpires such that the foundation of the capacity market will be dependent on AESO market predictions including forecasting capacity demand, energy market and ancillary market prices
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.*	We support these criteria, although in a truly open market based system there is no guarantee that a true price signal will be effective or efficient. For instance, despite obvious price signals from both an operational and energy market perspective the Ancillary Services market has traded either well above or below these signals due to market participants with large positions making non-price signal based offer decisions. This is why we previously asserted that fair competition, well established rules and monitoring of the market should be defined in some manner as early in the design process as possible to allow for sufficient vetting and improvements before implementation. To be clear we do not believe that receiving an assumed marginal cost of generation as a clearing price in an energy market is either an effective or efficient price signal to an established generator that has been unable to make profits over the past

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		few years based on the existing market situation.
Potential criteria for the capacity market *Slide 23*	Are there additional criteria which should be included in this category?	As stated previously, we believe that only generation technologies that have “dispatchable” capacity should be able to provide capacity. Or that a potential separate market instrument will need to be developed to account for “non-dispatchable” renewables. Also, at some point the determination of effective and efficient pricing in the capacity market needs to be addressed specifically at an AB market level as opposed to this is what they are doing in GB and the USA without recognition of the inherent market differences.
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.*	We support these criteria, but would like some clarity regarding the “term” of long term? We do not believe that short term capacity contracts will provide the financial security to entice larger projects in need of intensive financial backing to enter the market, the definition of term will be a very important component in the design phase. At the same time locking in new generation commitments for terms of 7-15 years sure sounds like the consumer is bearing the risk – especially if these projects are extremely large in scale/scope.
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.*	We strongly support these criteria, but if this results is large projects being on the books for decades with customers bearing cost and no mechanism to potentially adjust out of market deals, then it’s hard to see how this and the point above will work together.
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.*	We support these criteria and believe that the amounts of reserve margin need to be addressed as part of the market design along with some vetting of any demand forecasts with input from the stakeholder community. Some consideration to changes in LOLE should be included as part of the capacity market development process
Potential criteria for costs and risk	Do you support the following criteria regarding the costs and risks category? Please explain.	We do not completely support these criteria in that you cannot define if supply adequacy objectives will be achieved in the future – as the proposed capacity market is a must offer structure you can ensure supply

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Slide 25	*The term of the capacity obligation should be as short as possible while ensuring supply adequacy objectives are achieved.*	adequacy based on the current generation glut, but if the term structure will not support financing of medium to large projects going forward then you will only find this out after your auction takes place. We believe that the ability to define term is intrinsically linked to the ability to gain investor confidence and secure private investment
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.*	We strongly support these criteria and will be very disappointed if a mix of administratively determined and competitive pricing for capacity are the end result of this process. We are unclear as to how mandated price caps and floors would not be considered administratively determined and are interested to understand how the pricing portions of all markets will be governed.
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 support these criteria, but would like to understand how this is being considered and what mechanisms would be available. When the AESO states consumers, what group is being identified? Also, is this being considered in harmony with the potential retail ramifications of the proposed changes, it certainly sounds like there will be no real way for this to work for customers without the ability to trade in derivatives or at all based on existing markets. Also, if as stated capacity charges will be flowed through as a transmission cost, hedging will likely be very difficult to achieve.
Potential criteria for costs and risk *Slides 24 – 25*	Are there additional criteria which should be included in this category?	We have no additional criteria at this time

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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.).*	We support these criteria especially the considerations of levels of cogeneration/behind the fence generation in the province and the potential to move towards nodal or location based pricing as a means of incenting generation in areas that will increase reliability initiatives
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.*	We support these criteria, and in light of recent market developments would be supportive of delays to the implementation of the capacity market that may further the AESO's ability to ensure the market is adaptable to government policy changes or initiatives.
Potential criteria for flexibility *Slide 26*	Are there additional criteria which should be included in this category?	We have no additional criteria at this time
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.*	We are not overly concerned with the exact timing of the market, it is far more important to adequately plan/design/implement than to reach for an extremely arbitrary deadline. Further we would ask what is the significance of the proposed timeline, and is there no room for slippage?

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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.*	We strongly support these criteria and are very interested as to the design of the integration of these three 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.*	We support these criteria, if the market is not something that can be easily explained and discerned then it will cause consumer/market backlash.
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.*	As previously stated we are not overly concerned re the timing of the initiative and believe that if a staged roll out is deemed appropriate, this is fine as long as the rationale is clearly stated and supports the other goals of the program.
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.*	We support these criteria, but not at the expense of the expense of an efficient, robust, and competitive capacity market that integrates in a responsible manner with the energy and ancillary services markets.
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.*	We support these criteria, but the implementation of these “lessons learned” should not overlook the unique characteristics of the Alberta electricity market, we do not believe that we should be considering another jurisdiction’s program and initiatives just because the parties contracted to complete the work have more familiarity with these markets and products. Market conditions and structures used in other markets are not always best practice for the unique conditions in Alberta.
Potential criteria for timely	Are there additional criteria which should be included in this category?	We have no additional criteria to add at this time

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?	We have no additional categories of criteria at this time. Also, we believe that the integration of all these criteria and determination of order of magnitude/importance is not of importance pre-design but will resolve itself as the process moves forward and the AESO determines critical path/process criteria for the market.

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.*	We support this assumption, but would like to receive clarification on the following points; how does the AESO propose to define being available to provide energy when needed and will penalties for non-supply be part of the design process? Is the obligation term considered all or nothing or will the ability to supply be separated more granularly – i.e. contract term is for one year, but the unit can non-supply and opt out on a daily/hourly basis for scheduled maintenance or unforeseeable operational reasons, the ability, timing of and penalties associated with non-supply/outages is still somewhat unclear.
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.*	We do support this assumption; however, if "must offer" pricing is limited by their ability to reliably supply capacity, for example this assumption does not work perfectly with wind, solar or certain run of river hydro projects due to their variable supply to the market, what exact constructs will be used to determine the proportion of capacity payments they receive? We also support the notion that if you do not win in the capacity market you can still participate in the energy and ancillary markets
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.*	We support this assumption and strongly believe that the flexibility to move towards a nodal construct should be considered as part of the design considerations for the capacity market. Obviously, the harmony of this with system reliability in the market decisions is extremely important to avoid future transmission concerns.
4 *Slide 31*	Do you support adopting the following assumption? Please explain. *The resource adequacy requirement for Alberta will be centrally determined.*	We support this assumption, but believe that some level of input from stakeholders should be considered regarding reserve margin levels and demand growth expectations and market pricing forecasts.

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 strongly support this assumption as integrating the other considerations listed into the capacity market will erode the basis of the initial impetus for the creation of the market.
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 strongly support this assumption and as previously stated are very interested in the design and interdependencies of these markets moving forward.
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.*	We strongly support this assumption as previously mentioned.
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 strongly support this assumption and would further extend the assumption that the winners of any REP programs or participants in additional future long term power purchase agreements should be ineligible for the capacity market for the term of their agreement and ineligible for capacity payments in lieu as part of their agreement.
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.*	We support this assumption as the market clearing and oversight processes are an essential aspect of the design process.

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?	We have no additional assumptions to add at this time.

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.	We would suggest that the format was appropriate for the audience and well received.
Next Steps *Slides 33 – 34*	Please provide any feedback you have regarding next steps in the capacity market development process.	We have no additional feedback at this time, but pending the educational session content and timing we may have questions/concerns moving forward.
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?	We agree that the next steps should be educational sessions initial stakeholder meetings and then consultation on the initial detailed design components. Acting on behalf of the following REAs: Battle River Power Coop, EQUS, Lakeland, Rocky and North Parkland Power, URICA Energy Management would like to request involvement in the detailed design process As to what items need to be resolved before detailed design can be addressed the list provided appears to be acceptable, but the expectation is that this will be fluid and could change as the process moves forward.
General Information	Please provide any additional comments or information regarding topics which you think are relevant but have not been specifically addressed above.	At this time, we have no further comments to add. Thank you