Stakeholder Comment Matrix



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

Date of Request for Comment: February 10, 2017

Period of Comment: January 17, 2017 through February 10, 2017

Comments From: Dow Chemical Canada ULC

Date [yyyy/mm/dd]: 2017-02-09

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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." | Cost must be the 'all in' cost; that is, the cost including transmission, distribution, ancillary services and any and all other tariffs that may be added by the legislator of the day. Unique aspects of Alberta's electricity industry currently includes consumer choice. The ability for industrial customers to tailor their electricity plans to their specific capabilities and risk tolerance must be retained, |
| 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) | First question – what is the definition of capacity? |



| Section | Approach | Stakeholder Response |
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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) | |
| 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. | It will be difficult for participants who operate on both sides of the capacity equation (load == consumer of capacity, and gen == supplier of capacity) to assess the impact of design questions to their operation when settlement is not discussed until after all other design is complete. Settlement basics need to be understood to participate in the eligibility, performance and mechanics discussions. |
| Capacity market development roadmap | 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 | Considering historic performance, it is not realistic neglect risk associated with IT System development. |
| Slide 13 | implementing the capacity market? Are there items or considerations missing from the roadmap? | What happens if the entire process is delayed once contracts are signed and/or planned generation leaves the system? A risk management plan is required. |
| AESO Consultation Principles | 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 | Considering the 'process of making decisions' AESO's rational must demonstratably and equally consider both sides of the capacity equation – loads and generators. |
| Slide 15 | which should be considered? Please provide reasons for your response. | |



| Section | Approach | Stakeholder Response |
|------------------------------------|---|---|
| Proposed approach to answering key | What clarification or additional information do you require regarding the proposed approach? | |
| design questions Slides 16 – 17 | 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? | Generally Dow supports an iterative process that will ensure full dialog and understanding. We suggest that the iterative process be expanded |
| | Do you think that the process will result in the expected benefits listed? | beyond passing of comment matrices back and forth between AESO and stakeholders. Specifically, workshops, or small group sessions that allow face-to-face dialog will allow AESO to fully understand, and reflect |
| | Are there modifications to this approach that would improve its effectiveness? | understanding back to, interested participants. |
| | Is there an alternative consultation approach you would like us to consider and why? Please describe the alternative in as much detail as possible. | |
| Design Alternatives Sheets | structure or content for of the proposed design documentation? | No comments. |
| Slide 18 | | |
| Term Sheets | Do you have any comments regarding the proposed purpose, | |
| Slide 19 | structure or content for of the proposed design documentation? | No comments. |
| Design development | Do you have any questions regarding the proposed steps? | |
| steps | Do you support the proposed design development process? | No. a suppose to |
| Slide 20 | What should be considered before a design component moves to the stage of being drafted into legal language? | No comments. |



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 | Do you support the following criteria regarding the supply adequacy and reliability category? Please explain. | Supply adequacy and reliability at any cost is intolerable to load. The reliability objectives must be accepted by those paying the bills. |
| reliability Slide 22 | The capacity market should achieve desired reliability objectives by creating a real and measurable supply adequacy product. | Alberta is unique in that there is a very large industrial <i>self-supply</i> contingent. Overall supply adequacy must account for and maintain the ability for industrials to manage their unique businesses. |
| 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. |
| Potential criteria for supply adequacy and reliability Slide 22 | Are there additional criteria which should be included in this category? | No comment. |
| 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. | Support. |
| Potential criteria for the capacity | Do you support the following criteria regarding the market category? Please explain. | Support. |



| Section | Subject | Stakeholder Response |
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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. | |
| Potential criteria for the capacity market | Do you support the following criteria regarding the market category? Please explain. | Support. |
| Slide 23 | A wide variety of technologies should be able to compete to provide capacity. | |
| Potential criteria for the capacity market | Do you support the following criteria regarding the market category? Please explain. | The competitive market must allow for timely price discovery. Online tools like Wattex enhance competition. |
| Slide 23 | Capacity market mechanisms, outcomes and relevant data should be transparent. | |
| Potential criteria for the capacity market | Do you support the following criteria regarding the market category? Please explain. | Again, consider timely and transparent price discovery. |
| Slide 23 | There should be a well-defined product and an effective and efficient capacity price signal. | |
| Potential criteria for the capacity market | Are there additional criteria which should be included in this category? | No comments. |
| Slide 23 | | |
| Potential criteria for costs and risk | Do you support the following criteria regarding the costs and risks category? Please explain. | Sounds nice, but in reality risk will be assigned by the accuracy of the supply adequacy requirement. If the requirement is overstated or overcontracted investors in energy intensive industries will bear the risk. |
| Slide 24 | Long-term investment risks should continue to be largely borne by investors rather than consumers. | some series and strongly antonions and series will be the field |



| Section | Subject | Stakeholder Response |
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| Potential criteria for costs and risk | Do you support the following criteria regarding the costs and risks category? Please explain. | Do not support. Every investor will ask for more certainty. Lengthening contract terms to satisfy investors puts all the long term risk on load. |
| Slide 24 | The capacity market should instil investor confidence and should result in private investment. | |
| Potential criteria for costs and risk | Do you support the following criteria regarding the costs and risks category? Please explain. | Balance is measured by consumers paying the bills and benefiting from high reliability. Balance is not measured by the AESO. |
| Slide 24 | There should be an effective balance between capacity cost and supply adequacy. | |
| Potential criteria for costs and risk | Do you support the following criteria regarding the costs and risks category? Please explain. | Support. |
| Slide 25 | The term of the capacity obligation should be as short as possible while ensuring supply adequacy objectives are achieved. | |
| Potential criteria for costs and risk | Do you support the following criteria regarding the costs and risks category? Please explain. | Consumers must also be offered the choice to self-supply or accept differentiated reliability or cost through alternative supply arrangements. |
| Slide 25 | Reasonable capacity costs for consumers should be achieved through effective competition and administratively determined prices should be avoided. | |



| Section | Subject | Stakeholder Response |
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| Potential criteria for costs and risk | Do you support the following criteria regarding the costs and risks category? Please explain. | Support. |
| Slide 24 | The design should provide mechanisms for consumers to hedge the cost of capacity if and where appropriate. | |
| Potential criteria for costs and risk | Are there additional criteria which should be included in this category? | No comment. |
| Slides 24 – 25 | | |
| Potential criteria for flexibility | Do you support the following criteria regarding the category of flexibility? Please explain. | Support, but recommend inclusion of BTF generation. |
| Slide 26 | 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.). | |
| Potential criteria for flexibility | Do you support the following criteria regarding the category of flexibility? Please explain. | Generally support. However, this tenet must hold true: The capacity market is a mechanism for procuring reliable electric supply. The capcity |
| Slide 26 | 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 is not a tool for social or environmental change. |
| Potential criteria for flexibility | Are there additional criteria which should be included in this category? | No comment. |
| Slide 26 | | |
| Potential criteria | Do you support the following criteria regarding the timely | Support, although suspect the reasonability of the goal. |



| Section | Subject | Stakeholder Response |
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| for timely development | development category? Please explain. | |
| Slide 27 | Market should be targeted to open in 2019 for start of first capacity procurement. | |
| 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. | Support. |
| 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. |
| Potential criteria for timely development | Do you support the following criteria regarding the timely development category? Please explain. | Support. |
| Slide 28 | To the extent a staged implementation is pursued, the expected timing and nature of future changes should be provided. | |
| 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. | Support. |
| Potential criteria for timely development | Do you support the following criteria regarding the timely development category? Please explain. Best practices and lessons learned from other capacity market | Support IF their applicability to Alberta can be demonstrated. |



| Section | Subject | Stakeholder Response |
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| Slide 28 | implementations should be leveraged as much as possible. | |
| Potential criteria for timely development | Are there additional criteria which should be included in this category? | No comment. |
| Slides 27 - 28 | | |
| General feedback regarding criteria | Are there additional categories of criteria which should be considered? | No additional categories. |
| Slides 21 – 28 | Do you require additional explanation or have questions regarding any of the categories or criteria? | Considering Alberta's heavy industrial load, criteria that will enable loads to exercise business choice should be assigned greater weight. |
| | Do you think all criteria are equally important or should some take precedence over others? | |



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 |
|----------------------|--|---|
| | Do you support adopting the following assumption? Please explain. | |
| 1 Slide 30 | 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. | Support. |
| | Do you support adopting the following assumption? Please explain. | |
| Slide 30 | All existing capacity "must offer" their eligible capacity to the capacity market. Planned capacity must offer for the delivery year they are connected. | Some existing capacity may be dedicted to some existing load – e.g., ISD, BTF, etc. Forcing 'must offer' on capacity is forcing 'must buy' on load. |
| | Do you support adopting the following assumption? Please explain. | |
| 3 Slide 30 | 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. |
| 4 | Do you support adopting the following assumption? Please explain. | |
| Slide 31 | The resource adequacy requirement for Alberta will be centrally determined. | Support, however loads must have the opportunity to test and challenge the resource adequacy requirement. |
| | Do you support adopting the following assumption? Please explain. | |
| 5 Slide 31 | 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. | Support. |



| Item | Assumption | Stakeholder Response |
|----------------------|---|----------------------|
| 6 | Do you support adopting the following assumption? Please explain. | |
| Slide 31 | Capacity and energy/ancillary services are separate products, and are procured independently. | Support. |
| 7 | Do you support adopting the following assumption? Please explain. | |
| Slide 32 | Participants do not need to be successful in the capacity market to participate in the energy and ancillary service markets. | Support. |
| | Do you support adopting the following assumption? Please explain. | |
| 8 Slide 32 | 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. |
| | Do you support adopting the following assumption? Please explain. | |
| 9 Slide 32 | Capacity market mechanics/behaviour will have regulatory oversight. Market outcomes will be the result of market clearing, unless otherwise demonstrated. | Support. |

| General feedback regarding assumption | Are there additional assumptions which should be considered? Do you require additional explanation or have questions regarding any of the assumptions? | In the satekholder sessions the AESO dismissed the need for a Steering Committee. Dow suggests AESO reconsider a cross-industry team to provide input to AESO regarding: - Fulsome stakeholder involvement - Potential under or over-represented stakeholders - Potential interconnections to regulations not in AESO's control, e.g., GoA legislation or regulation - Potential out-of-sync interconnections to other design elements |
|--|---|--|
| | | The cross industry team would have a view to the different involved sub-sectors, but would not represent them. |



| | The cross industry team would not be the gate-keeper; AESO would retain that obligation. Concensus and full representation of every sub-industry is not |
|--|---|
| | necessary. |



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. | No comments. |
| | 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. | No comments. |
| 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? | No comments. |
| General Information | Please provide any additional comments or information regarding topics which you think are relevant but have not been specifically addressed above. | No futher comments. |