

Stakeholder Comment Matrix

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



Date of Request for Comment: <u>February 10, 2017</u>	Contact: <u>Jim Wachowich/</u>
Period of Comment: <u>January 17, 2017</u> through <u>February 10, 2017</u>	<u>Raj Retnanandan</u>
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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 <i>Slide 7</i>	<p>Do you support the following statement regarding the desired end state for the capacity market? Do you disagree with the statement or have alternative wording? Please provide reasons for your response.</p> <p><i>“The desired end state is to develop a capacity market that utilizes competitive market forces, ensures continued supply adequacy and reliability at a reasonable cost and is flexible to reflect the unique aspects of Alberta’s electricity industry.”</i></p>	<p>The development of a capacity market should not be the sole objective of this restructuring exercise; such a limited focus is likely to result in sub optimal outcomes for the industry. Here is a suggestion for a broader vision for the restructuring:</p> <p>The restructuring contemplates the economically efficient integration of increasing levels of geographically dispersed and intermittent renewable resources into the electricity grid through changes to grid operations, design and development of a competitive capacity and ancillary services market and adoption of mechanisms to enhance economic price formation in the energy market.</p>
Key design questions for capacity market development <i>Slides 8 – 11</i>	<p>Is the preliminary list of key design questions an inclusive list? Is it clear what area of capacity market development each question is intending to address? What clarification is required on any of these items? What additional questions or areas, if any, do you think should be added to the list to ensure a comprehensive capacity market design? Please provide as much detail as possible.</p> <ul style="list-style-type: none"> – <i>How much capacity needs to be procured? (Resource adequacy requirement)</i> – <i>Who will buy the capacity? (Obligation to procure)</i> – <i>When and how often will capacity be purchased? (Procurement timing and frequency)</i> – <i>How long will the capacity delivery period be? (Term)</i> 	<p>These are questions premised on the assumption that the development of a capacity market is the primary focus of the restructuring effort. This focus is too limited as it is unlikely to result in economically efficient outcomes.</p> <p>The purpose of the restructuring should require the economic and efficient integration of increasing levels of geographically dispersed and intermittent renewable resources into the electricity grid through changes to grid operations, design and development of a competitive capacity and ancillary services market and adoption of mechanisms to enhance economic price formation in the energy market.</p>

Section	Approach	Stakeholder Response
	<ul style="list-style-type: none"> – <i>Who can provide capacity? How much can they provide? (Eligibility)</i> – <i>How do we know that capacity has been provided? (Performance assessments)</i> – <i>How will the capacity market work? (Market mechanics)</i> – <i>How will capacity providers be paid? How will capacity costs be allocated? (Capacity market settlement)</i> – <i>How will the capacity market impact the energy and ancillary services markets? (Inter-operability implications)</i> 	
Design dependencies and sequencing <i>Slide 12</i>	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.	The design effort should consider changes to grid operations, design of integrated capacity and ancillary services market and mechanisms to facilitate price formation in the energy market. All of these aspects should be part of an overall strategy to achieve economically efficient outcomes. It would be entirely counter productive to consider capacity market first and then sequence changes to other aspects of the grid and market design.
Capacity market development roadmap <i>Slide 13</i>	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?	The roadmap focusing solely on capacity markets will not result in economically efficient outcomes. A wholistic approach incorporating changes to grid operations, integrated markets for capacity, ancillary services and energy markets is required in order to mitigate risks of unintended consequences.
AESO Consultation Principles <i>Slide 15</i>	Do you have any questions regarding the AESO's consultation principles as they pertain to development of the capacity market? Are there additional concepts or principles which should be considered? Please provide reasons for your response.	<p>This is a complex restructuring effort and the number of parties attending a meeting or making submissions may not be indicative of the effectiveness of the consultation process.</p> <p>A preferred consultation process should have informed and manageable numbers of stakeholder representative being involved in assessing and reaching consensus on the AESO's design and implementation proposals.</p>

Section	Approach	Stakeholder Response
Proposed approach to answering key design questions <i>Slides 16 – 17</i>	<p>What clarification or additional information do you require regarding the proposed approach?</p> <p>Do you support the two-stage iterative process proposed for the capacity market design?</p> <p>Do you agree this process will deliver an inclusive, timely, efficient, cohesive and comprehensive design?</p> <p>Do you think that the process will result in the expected benefits listed?</p> <p>Are there modifications to this approach that would improve its effectiveness?</p> <p>Is there an alternative consultation approach you would like us to consider and why? Please describe the alternative in as much detail as possible.</p>	<p>CCA's concerns with the objective and scope of the exercise and concerns with the proposed consultation process are expressed throughout this document.</p>
Design Alternatives Sheets <i>Slide 18</i>	<p>Do you have any comments regarding the proposed purpose, structure or content for of the proposed design documentation?</p>	<p>CCA's concerns with the objective and scope of the exercise and concerns with the proposed consultation process are expressed throughout this document.</p>
Term Sheets <i>Slide 19</i>	<p>Do you have any comments regarding the proposed purpose, structure or content for of the proposed design documentation?</p>	<p>CCA's concerns with the objective and scope of the exercise and concerns with the proposed consultation process are expressed throughout this document.</p>
Design development steps <i>Slide 20</i>	<p>Do you have any questions regarding the proposed steps?</p> <p>Do you support the proposed design development process?</p> <p>What should be considered before a design component moves to the stage of being drafted into legal language?</p>	<p>CCA's concerns with the objective and scope of the exercise and concerns with the proposed consultation process are expressed throughout this document.</p> <p>Certain aspects of a more comprehensive approach to restructuring would require immediate changes to the Transmission Regulations to allow the AESO to accommodate storage and to facilitate location price signals.</p>

Capacity Market Criteria

Please indicate in your response whether you support the following market criteria and provide reasons for your position.

Section	Subject	Stakeholder Response
Potential criteria for supply adequacy and reliability Slide 22	Do you support the following criteria regarding the supply adequacy and reliability category? Please explain. <i>The capacity market should achieve desired reliability objectives by creating a real and measurable supply adequacy product.</i>	The design effort should consider changes to grid operations, design of integrated capacity and ancillary services market and mechanisms to facilitate price formation in the energy market. All of these aspects should be part of an overall strategy to achieve economically efficient outcomes including supply adequacy. It would be entirely counter productive to consider capacity markets first and then sequence changes to other aspects of the grid and market design.
Potential criteria for supply adequacy and reliability Slide 22	Do you support the following criteria regarding the supply adequacy and reliability category? Please explain. <i>The capacity market should contribute to the reliable operation of the electricity grid and implementation should be consistent with, and complementary to, other measures aimed at ensuring reliability.</i>	The design effort should consider changes to grid operations, design of integrated capacity and ancillary services market and mechanisms to facilitate price formation in the energy market. All of these aspects should be part of an overall strategy to achieve economically efficient outcomes including supply adequacy. It would be entirely counter productive to consider capacity markets first and then sequence changes to other aspects of the grid and market design.
Potential criteria for supply adequacy and reliability Slide 22	Are there additional criteria which should be included in this category?	
Potential criteria for the capacity market Slide 23	Do you support the following criteria regarding the market category? Please explain. <i>The capacity market should be fair, efficient, and openly competitive.</i>	Yes; however, this principle should be viewed in the context of an integrated energy market, ancillary services market and capacity market
Potential criteria	Do you support the following criteria regarding the market	Yes; however, the market based mechanisms should be applied in the

Section	Subject	Stakeholder Response
for the capacity market <i>Slide 23</i>	category? Please explain. <i>The procurement of capacity should employ market-based mechanisms and a competitive market for capacity should be developed.</i>	context of an integrated energy market, ancillary services market and capacity market
Potential criteria for the capacity market <i>Slide 23</i>	Do you support the following criteria regarding the market category? Please explain. <i>A wide variety of technologies should be able to compete to provide capacity.</i>	Once carbon tax is in place, resource additions should be technology neutral
Potential criteria for the capacity market <i>Slide 23</i>	Do you support the following criteria regarding the market category? Please explain. <i>Capacity market mechanisms, outcomes and relevant data should be transparent.</i>	Yes; however, the transparency criterion should be applied in the context of an integrated energy market, ancillary services market and capacity market
Potential criteria for the capacity market <i>Slide 23</i>	Do you support the following criteria regarding the market category? Please explain. <i>There should be a well-defined product and an effective and efficient capacity price signal.</i>	Yes; well defined and finely differentiated products should be used for the capacity and ancillary services markets
Potential criteria for the capacity market <i>Slide 23</i>	Are there additional criteria which should be included in this category?	

Section	Subject	Stakeholder Response
Potential criteria for costs and risk <i>Slide 24</i>	Do you support the following criteria regarding the costs and risks category? Please explain. <i>Long-term investment risks should continue to be largely borne by investors rather than consumers.</i>	Agreed in principle. This means subsidies whether by ratepayers or tax payers to mitigate long term investment risks of private parties should be avoided.
Potential criteria for costs and risk <i>Slide 24</i>	Do you support the following criteria regarding the costs and risks category? Please explain. <i>The capacity market should instil investor confidence and should result in private investment.</i>	Agreed. However, this is another balance consideration.
Potential criteria for costs and risk <i>Slide 24</i>	Do you support the following criteria regarding the costs and risks category? Please explain. <i>There should be an effective balance between capacity cost and supply adequacy.</i>	Merely balancing supply adequacy and capacity costs would not result in an overall economically efficient outcome. The balance must consider the energy and ancillary services markets as well.
Potential criteria for costs and risk <i>Slide 25</i>	Do you support the following criteria regarding the costs and risks category? Please explain. <i>The term of the capacity obligation should be as short as possible while ensuring supply adequacy objectives are achieved.</i>	<p>The market clears where the supply curve crosses that demand curve. That clearing price will set what is paid for capacity during that delivery period, but the demand curve assumes that some of the contributions to fixed cost will be earned in the energy and AS markets and limits the clearing price to that assumption.</p> <p>If this is not recognized there is a risk of double payment, and that risk is considerable. The principle safeguard against it is the combination of the methodology used to derive the demand curve and a requirement that capacity prices are fixed for only short periods of time.</p>
Potential criteria for costs and risk <i>Slide 25</i>	Do you support the following criteria regarding the costs and risks category? Please explain. <i>Reasonable capacity costs for consumers should be achieved</i>	Effective competition is always a desirable attribute. However, whether economically efficient outcomes are achieved from such competition depends on a number of design factors.

Section	Subject	Stakeholder Response
	<i>through effective competition and administratively determined prices should be avoided.</i>	<p>The market clears where the supply curve crosses that demand curve. That clearing price will set what is paid for capacity during that delivery period, but the demand curve assumes that some of the contributions to fixed cost will be earned in the energy and AS markets and limits the clearing price to that assumption.</p> <p>If this is not recognized there is a risk of double payment, and that risk is considerable. The principle safeguard against it is the combination of the methodology used to derive the demand curve and a requirement that capacity prices are fixed for only short periods of time.</p>
Potential criteria for costs and risk <i>Slide 24</i>	<p>Do you support the following criteria regarding the costs and risks category? Please explain.</p> <p><i>The design should provide mechanisms for consumers to hedge the cost of capacity if and where appropriate.</i></p>	<p>Under the existing energy only market RRT providers are required to buy hedge products for the month ahead. These products provide price hedges to protect RRT customers from price volatility. Other competitive retailers have provided hedge products for longer periods.</p> <p>The purpose of a capacity market is to ensure supply adequacy. One way of looking at this is to say it is an insurance premium to ensure there is adequate supply to meet peak demand. Another way to look at it is to say it is a mechanism to secure adequate reserves cushion.</p> <p>Whichever way one looks at this, it is a support system to ensure adequate reserves and it has nothing to do with how consumers may wish to hedge their pool prices. Accordingly, the design should not require consumers to hedge against the cost of system inadequacy; rather capacity payments (as well as payments for flexibility products) should be treated as part of the cost of procuring the reserve cushion and treated as part of the ancillary services costs of the AESO.</p>
Potential criteria for costs and risk <i>Slides 24 – 25</i>	<p>Are there additional criteria which should be included in this category?</p>	

Section	Subject	Stakeholder Response
Potential criteria for flexibility Slide 26	Do you support the following criteria regarding the category of flexibility? Please explain. <i>Unique aspects of Alberta's electricity system should be considered in the design of the capacity market (e.g. nature of load/generation, levels of cogeneration, limited inerties, large geographic area, etc.).</i>	<p>The requirement for flexibility resources would increase as the proportion of intermittent renewable supply increases. Unserved energy (ie: energy unserved in all hours) more than loss of load expectation (LOLE) in a given hour would tend to drive acquisition of capacity products. Flexibility products irrespective of the source, should be duly differentiated based on the nature of the flexibility requirement being met.</p> <p>While the unique aspects of Alberta's electric system would tend to impact the shape of the hourly supply and demand, the flexibility products should be designed and structured to reflect the unique supply demand characteristics of the system on an hourly basis.</p>
Potential criteria for flexibility Slide 26	Do you support the following criteria regarding the category of flexibility? Please explain. <i>The capacity market should be compatible with other components of the electricity framework, and should be robust and adaptable to different government policy initiatives related to the electricity sector.</i>	<p>There are certain components of the electricity framework (not the principles) that need to evolve in light of the drivers of change which include the increasing share of intermittent renewable supply as well as the need to cost effectively integrate distributed resources (T&D).</p> <p>The restructuring should be seen as an evolution of the existing system where a capacity payment regime is to be overlaid on top of the energy only market. This overlay of the capacity payment regime should not be viewed in isolation but must be part of a coordinated approach encompassing the four policy domains as described more fully under the section dealing with general feed back on assumptions</p>
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. <i>Market should be targeted to open in 2019 for start of first capacity procurement.</i>	<p>The target date for capacity auctions to begin should be driven by the system adequacy metrics; not by a fixed administratively determined date.</p>

Section	Subject	Stakeholder Response
Potential criteria for timely development Slide 27	Do you support the following criteria regarding the timely development category? Please explain. <i>The initial degree of change to the current energy and ancillary service market should be minimized.</i>	<p>The current energy only market should be refined (example addition of demand response, gate closure, storage) to facilitate energy price formation reflecting the economic scarcity value of supply in each hour. A broad array of market based products should be developed for ancillary services.</p> <p>The above changes should be concurrent with changes to the move to a capacity market as the capacity market is only intended to provide additional revenues to system resources over and above what they would expect to earn in a properly functioning energy-only market.</p>
Potential criteria for timely development Slide 27	Do you support the following criteria regarding the timely development category? Please explain. <i>Simple and straightforward implementation should be a priority.</i>	<p>Simplicity while it is a virtue in itself it should not override considerations of economic efficiency of the system as a whole.</p>
Potential criteria for timely development Slide 28	Do you support the following criteria regarding the timely development category? Please explain. <i>To the extent a staged implementation is pursued, the expected timing and nature of future changes should be provided.</i>	<p>The way to a staged implementation is through development of a comprehensive strategic plan. The strategic plan must not only consider system adequacy but also the other policy domains that are integral to development of a economically efficient market as more fully described under general feedback regarding assumptions.</p>
Potential criteria for timely development Slide 28	Do you support the following criteria regarding the timely development category? Please explain. <i>The risks of regulatory delay and need for re-design should be minimized.</i>	<p>The way to mitigate the risk of regulatory delay and re-design is to come up with a comprehensive strategic plan before embarking on the design of the capacity market. The strategic plan must not only consider system adequacy but also the other policy domains that are integral to development of a economically efficient market.</p>
Potential criteria for timely development	Do you support the following criteria regarding the timely development category? Please explain. <i>Best practices and lessons learned from other capacity market</i>	<p>Best practices from other jurisdictions could be referenced recognizing this is an evolving field in other jurisdictions too. Lessons learned from other jurisdictions should be considered. Risks of unintended consequences should be minimized through a comprehensive approach</p>

Section	Subject	Stakeholder Response
Slide 28	<i>implementations should be leveraged as much as possible.</i>	<p>to restructuring rather than a patchwork approach which only considers system adequacy, exclusively.</p> <p>The overall consideration should be economic efficiency in the context of Alberta's unique history and resources (eg: Alberta has wide availability of salt cavern storage for use by compressed air or hydrogen storage operations). This means out of market arrangements (including subsidies by ratepayers or taxpayers) should be avoided.</p>
Potential criteria for timely development Slides 27 - 28	Are there additional criteria which should be included in this category?	The criteria relate exclusively to system adequacy. A more detailed description of the policy domains which should in turn drive broader categories of criteria are set out in the general feed back regarding assumptions.
General feedback regarding criteria Slides 21 – 28	<p>Are there additional categories of criteria which should be considered?</p> <p>Do you require additional explanation or have questions regarding any of the categories or criteria?</p> <p>Do you think all criteria are equally important or should some take precedence over others?</p>	The criteria relate exclusively to system adequacy. A more detailed description of the policy domains which should in turn drive broader categories of criteria are set out in the general feed back regarding assumptions.

Capacity Market Assumptions

Please indicate in your response whether you support adopting the following starting assumptions and provide reasons for your position.

Item	Assumption	Stakeholder Response
1 Slide 30	Do you support adopting the following assumption? Please explain. <i>A capacity obligation is a forward physical obligation on capacity suppliers that requires the capacity sold in the capacity market to be available to provide energy when needed. This obligation is created when the supplier's offer is cleared in the capacity market.</i>	This is simply a textbook definition. How a capacity market is designed and implemented has several moving parts. These are further discussed under the general feedback on assumptions section
2 Slide 30	Do you support adopting the following assumption? Please explain. <i>All existing capacity "must offer" their eligible capacity to the capacity market. Planned capacity must offer for the delivery year they are connected.</i>	A proper capacity market would not make distinctions between existing and new generation. All capacity must be eligible to offer and be paid the clearing price.
3 Slide 30	Do you support adopting the following assumption? Please explain. <i>The capacity market will be designed as a single zone with the capability of adding zones should it be required due to a change in transmission policy or other factors.</i>	At the present time a single zone approach appears to be reasonable. However, as resources become increasingly distributed (assuming electric cars and battery walls become significant loads/resources), it may be economically efficient to manage supply demand by zone (or micro grids) rather than as part of a single zone. The design must consider these future implications.
4 Slide 31	Do you support adopting the following assumption? Please explain. <i>The resource adequacy requirement for Alberta will be centrally determined.</i>	At the present time a single zone approach appears to be reasonable. However, as resources become increasingly distributed (assuming electric cars and battery walls become significant loads/resources), it may be economically efficient to manage supply demand by zone (or micro grids) rather than as part of a single zone. The design must consider these future implications.
5 Slide 31	Do you support adopting the following assumption? Please explain. <i>The capacity market is intended to ensure supply adequacy. Other attributes such as carbon output, total capacity factor, ramp flexibility, energy production costs, etc., are not considered within</i>	Setting up separate energy, AS, capacity and flexibility product markets is a recipe for disaster – operating reserves have always been procured through the AS markets, and the ramping service some are talking about now are simply a substitute for the temporal arbitrage that should exist over the course of a day in a market where energy and AS prices are properly formed.

Item	Assumption	Stakeholder Response
	<i>the capacity market.</i>	
6 Slide 31	Do you support adopting the following assumption? Please explain. <i>Capacity and energy/ancillary services are separate products, and are procured independently.</i>	The capacity market should function simply as a safety net, a way of catching any failures of the energy and ancillary services markets to price as they should as the need for new investment approaches a few years out. That is the current trajectory in Eastern ISO/RTO markets – FERC is driving them continuously to improve the formation of prices in the energy and AS markets in an effort to relegate the capacity markets to a subordinate, safety-net role in paying for needed investment. Setting up separate energy, AS, capacity and flexibility product markets is a recipe for disaster – operating reserves have always been procured through the AS markets, and the ramping service some are talking about now are simply a substitute for the temporal arbitrage that should exist over the course of a day in a market where energy and AS prices are properly formed.
7 Slide 32	Do you support adopting the following assumption? Please explain. <i>Participants do not need to be successful in the capacity market to participate in the energy and ancillary service markets.</i>	It is important to price differentiate capacity resources on the basis of their ability to meet capacity as well as flexibility requirements; a capacity provider who can only provide capacity requirements without the ability to support flexibility requirements should receive lower payments for capacity
8 Slide 32	Do you support adopting the following assumption? Please explain. <i>While receiving support payments, Renewable Electricity Program (REP) round 1 winners are not eligible to sell REP capacity in the capacity market owing to the Indexed REC payment mechanism chosen.</i>	<p>The acquisition of the 500 MW under REP round 1 should be the last under this approach as this approach would prove to be costly to customers over time. REP winners should not be allowed to participate in the capacity market as this would result in duplicate payments for capacity to successful REP participants.</p> <p>Following the first tranche of 500 MW under the REP round 1, need to consider market integration of future intermittent renewable additions including wind; market integration mechanisms may involve quicker gate closure requirements for wind in order to facilitate wind's ability to offer capacity and be dispatched. Integrating other flexibility resources such as storage and demand response into</p>

Item	Assumption	Stakeholder Response
		the system would help maximize the value of intermittent renewables while minimizing volatility of pool prices. Under this scenario where REP no longer applies, wind should be able to offer capacity like any other resource.
<p>9</p> <p>Slide 32</p>	<p>Do you support adopting the following assumption? Please explain.</p> <p><i>Capacity market mechanics/behaviour will have regulatory oversight. Market outcomes will be the result of market clearing, unless otherwise demonstrated.</i></p>	<p>While market clearing is an ideal, there is certainly a risk of double payment for capacity and energy and, that risk is considerable. The principle safeguard against it is the combination of the methodology used to derive the demand curve and the fact that – at least in most capacity markets – capacity prices are fixed for only short periods of time and should trend toward greater confidence with each subsequent auction. This is, of course, one of the most compelling arguments for NOT granting long-term price and volume commitments to any capacity, new or old, as a result of any single auction cycle.</p>
<p>General feedback regarding assumptions</p>	<p>Are there additional assumptions which should be considered?</p> <p>Do you require additional explanation or have questions regarding any of the assumptions?</p>	<p>There are 4 policy domains that need to be dealt with in a comprehensive manner. The AESO’s exclusive focus on generation adequacy, as dictated by its mandate from the Govt. amounts to an abdication of responsibility to ensure economically efficient outcomes for electricity customers as the trend towards integration of less carbon intensive resources continues. The AESO should alert the Govt. on the need for a comprehensive mandate which may involve legislative changes arising from the following:</p> <p>Policy Domain 1-Securing and Integrating Renewable Generation The REP strikes a certain balance between maintaining Investment Certainty vs minimizing cost in the initial stages; However, this needs to be reviewed as part of the restructuring in the interest of future renewable acquisitions bearing in mind, as the carbon tax increases to \$50.00 per tonne by 2022, the need to subsidize renewables decreases and the relevance of technology neutral economically efficient solutions increases.</p> <p>Policy Domain 2-Grid Operations Need changes to Transmission Regulations as well as AESO tariff changes to recognize storage as a viable mechanism to maximize value of renewables,</p>

		<p>meet flexibility requirements and reduce volatility of pool prices. Similarly demand response needs to be integrated into the market mechanisms.</p> <p>AESO tariff mechanisms need to be reviewed to ensure generators are encouraged to locate without causing additional transmission costs (some form of location price signals)</p> <p>Changes are needed to network protocols to accommodate higher levels for renewables connecting to transmission and distribution systems.</p> <p>Policy Domain 3-Enhancing System Flexibility Need to integrate short term flexibility resources to follow fluctuations in load as the percent of intermittent renewables increase over time and unserved energy in all hours becomes an increasingly important consideration rather than meeting capacity at the peak hour(s).</p> <p>Market mechanisms and products are needed to incent optimum costs for flexibility resources.</p> <p>Policy Domain 4-Generation Adequacy Capacity markets employ a demand curve against which the supply of capacity clears. The demand curves are based on an assessment of the levelized fixed costs of a nominal generator (usually either a peaking CT or a CCGT) to establish the revenue requirements in the relevant delivery period and then deduct the net contribution that nominal generator would expect to earn from the sale of energy and ancillary services during that same period. The market clears where the supply curve crosses that demand curve. That clearing price will set what is paid for capacity during that delivery period, but the demand curve assumes that some of the contributions to fixed cost will be earned in the energy and AS markets and limits the clearing price to that assumption.</p> <p>Capacity mechanisms are not intended to provide additional revenues to system</p>
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		resources over and above what they would expect to earn in a properly functioning energy-only market. Part of the restructuring should ensure proper price formation in the energy only market by considering demand response, gate closure, storage, pool price cap etc.
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General Feedback

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

Section	Subject	Stakeholder Response
Next Steps <i>Slides 33 – 34</i>	<p>Please provide any general feedback you have regarding the January 12/16 AESO presentation content or format.</p> <p>Please provide any general feedback you have regarding formats for future materials or stakeholder sessions.</p>	The information provided was helpful
Next Steps <i>Slides 33 – 34</i>	Please provide any feedback you have regarding next steps in the capacity market development process.	CCA requests, that the scope of the restructuring be expanded in consultation with the Govt. before commencing any consultations on design of the capacity market
Next Steps <i>Slides 33 – 34</i>	<p>Assuming criteria, assumptions, key questions, sequencing and stakeholder approach are finalized, do you agree that next steps are to begin consultation on the first detailed design components? Do you agree that these items need to be resolved before detailed design components begin to be addressed?</p> <p>Other than the items listed above, do other topics need to be discussed or addressed, or other information provided, before detailed design discussions begin?</p>	CCA requests, that the scope of the restructuring be expanded in consultation with the Govt. before commencing any consultations on design of the restructuring effort
General Information	Please provide any additional comments or information regarding topics which you think are relevant but have not been specifically addressed above.	CCA views more or better costing information as desirable. Also what checks and balances will be placed on the overall design and implementation to insure cost discipline at all stages of this process.