

Incremental Capacity Auction (ICA) – Stakeholder Feedback Form

Stakeholder Meeting: November 6th, 2017

Feedback request by: 2017/12/04 Date Submitted: 2017/12/04	Feedback provided by: Company Name: <u>APPrO</u> Contact Name: <u>Dave Butters</u> Phone: <u>[REDACTED]</u> Email: <u>[REDACTED]</u>
---	---

The IESO held the third meeting of the ‘Options Phase’ of the Market Renewal – Incremental Capacity Auction engagement on November 6th, 2017.

The presentation can be [found here](#).

In order to maximize the effectiveness of this stakeholder engagement process, the IESO requests that stakeholders use the template below to provide feedback on content presented as follows:

- Provide responses to the questions posed
- For options presented, indicate your preference along with applicable rationale/supporting arguments (reference slide numbers where applicable)
- For the recommendations/next steps presented, indicate your agreement/ disagreement with applicable rationale/supporting arguments (reference slide numbers where applicable)
- Identify any aspects that you believe require further elaboration or discussion

Feedback received will be summarized and will help inform further discussions at future stakeholder engagement meetings.

Design Element	Features	Questions / Next Steps / Recommendations	Stakeholder Feedback
Resource Performance Obligations	(1a) Must-offer Timeframe <i>Slides 38-41</i>	RECOMMENDATION - Participants will have a must-offer obligation in both the day-ahead market and real-time energy market	All participants should be required to offer into the day-ahead market and real-time energy market. The rules should apply equally to all participants that have a capacity obligation.
& Performance Assessment	(1b) Must-offer Amount <i>Slides 42-46</i>	<p>Please identify preferred option and provide supporting rationale.</p> <p>OPTION 1: Rely only on future Qualified Capacity (UCAP) ratings to drive the desired behaviour (note: this incentive is inherent to the design of the Qualified Capacity process and will occur by default)</p> <p>OPTION 2: In addition to Option #1, also establish a “Pay-for-Availability” mechanism that considers the amount of capacity that was offered by the resource during the Commitment Period and reduce payments if it falls below their Capacity Obligation</p> <p>QUESTION: Should availability be assessed via a Pay-for-Availability mechanisms or are existing incentives in the energy market and updates to future Qualified Capacity ratings sufficient?</p> <ul style="list-style-type: none"> • Consideration will also need to be given to whether or not both Pay-for-Availability and Pay-for-Performance mechanisms are required to define the desired capacity product 	<p>Option 2 is the preferred option.</p> <p>The ICA is fundamentally attempting to contract for a capacity product. Payments should be reduced if the resource performance falls below its Capacity Obligation during the Commitment Period.</p> <p>There are many distortions within the existing energy market as a result of regulated and contracted assets which may not align with the behaviour typical of a resource with a Capacity Obligation. This is especially the case given the IESO will be entering into the first ICA in a short position, the capacity need is real and the capacity must deliver or the IESO controlled system may fall short of its reliability needs/requirements.</p> <p>APPRO further supports that Pay-for-Performance mechanisms are fundamentally needed to drive the desired capacity product behaviour to fulfill the reliability needs of the province.</p>

Design Element	Features	Questions / Next Steps / Recommendations	Stakeholder Feedback
		<p>Please identify preferred approach and provide supporting rationale.</p> <p>Approach 1 - Hourly Assessment: Ensure the MWs offered and/or generated are greater than or equal to the Capacity Obligation in each hour during which performance is assessed</p> <p>Approach 2 - Average Assessment: Ensure the MWs offered and/or generated are greater than or equal to the Capacity Obligation on average over the commitment period</p> <p>QUESTION: If the decision is made to have a Pay-for-Availability mechanism, what approach for implementing the mechanism should be adopted (i.e. assess “on average” or “in each hour”)? Should the same approach be used for all resource types?</p> <p>NEXT STEPS - Taking into account the stakeholder feedback and system operational needs, the IESO will work with Brattle to further explore the options associated with these features and provide a preliminary recommendation to stakeholders in a future meeting</p>	<p>Hourly Assessments should be used as the Capacity Obligation is a reliability product needed to be called upon to prevent a loss of load event (“LOLE”) at peak demand conditions. Peak demand is an instantaneous characteristic which cannot be met in one hour and fall short the next. Using an average to meet a capacity obligation means that the capacity is not firm during a particular load event and is instead able to meet the requirement “on average” but not with certainty during a specific event.</p> <p>Pay-for-Availability or Pay-for-Performance should be applied equally to all resource types and is consistent with the existing IESO DR Auction. The current DR auction is procuring something similar to what the fundamental reliability product that the Capacity Obligation is meant to serve.</p> <p>APPrO looks forward to Brattle’s recommendations.</p>
	<p>(1c) Must-offer Hours Slides 47-52</p>	<p>QUESTION: Should availability be assessed via a Pay-for-Availability mechanisms or are existing incentives in the energy market and updates to future Qualified Capacity ratings sufficient?</p> <ul style="list-style-type: none"> • Consideration will also need to be given to whether or not both Pay-for-Availability and Pay-for-Performance mechanisms are required to define the desired capacity product 	<p>Yes, availability should be assessed via a Pay-for-Availability mechanism. See further detail below.</p>

Design Element	Features	Questions / Next Steps / Recommendations	Stakeholder Feedback
		<p>Please identify preferred option and provide supporting rationale.</p> <p>OPTION 1: Assess participants’ availability 24hrs a day, and there will be non-performance implications for not meeting the obligation, which could be greater during pre-defined hours with elevated outage risk</p> <p>OPTION 2: Assess participants’ availability only during pre-defined delivery period, and there will be non-performance implications</p> <p>QUESTION: If the decision is made to have a Pay-for-Availability mechanism, over what hours should the assessment take place?</p> <p>NEXT STEPS: Taking into account the stakeholder feedback and system operational needs, the IESO will work with Brattle to further explore the options associated with these features and provide a preliminary recommendation to stakeholders in a future meeting</p>	<p>US jurisdictions have determined a pre-defined delivery period and a large number of these jurisdictions are moving to a Pay-for-Performance construct which is assessed on any shortage hour. Ontario has a greater variable generation penetration than most adjacent US jurisdictions so the risk associated with non-performance of resources that should have been available and were being counted on as firm capacity is significant.</p> <p>Similarly, APPrO believes that the pay for availability should be assessed 24-hours a day and should apply to all resources participating in the Capacity Auction.</p> <p>If pay for availability is not applied uniformly and is only applicable to specific resource types, then a subset of hours [OPTION 2] should be used instead of Option 1 and the applicable hours that the assessment takes place should be based on peak demand and critical hours such as daily ramp up or ramp down periods in demand.</p> <p>APPrO looks forward to Brattle’s recommendations.</p>

Incremental Capacity Auction – Stakeholder Feedback Form
 Stakeholder Meeting: September 28th, 2017

Design Element	Features	Questions / Next Steps / Recommendations	Stakeholder Feedback
		<p>RECOMMENDATION: Participants would have a must-offer obligation 24 hrs per day; potential for modifying obligations due to resource-specific constraints</p>	<p>APPPrO concurs with IESO’s recommendation for a must-offer obligation 24 hrs per day however with no mitigation of obligations due to resource-specific constraints.</p> <p>Please note the comments above with respect to modifying obligations due to resource-specific constraints.</p>
	<p>(1d) Outage Planning and Reporting <i>Slides 53-55</i></p>	<p>RECOMMENDATION: Participants required to follow existing Outage Management processes, which per existing Market Rule and Market Manual obligations requires submission of planned, maintenance, and forced outage data</p>	<p>APPPrO concurs with IESO’s recommendation.</p>
		<p>RECOMMENDATION: If Pay-for-Availability mechanism is adopted, the non-performance charges calculated should not be impacted by approved planned outages</p>	<p>APPPrO agrees with the IESO’s recommendation; however, note that other regulated and contracted market participants do not have this level of obligation. Given they are typically exempted from this requirement and only typically subject to a minimum availability limit this puts significant and asymmetrical penalties on those resources that are subject to Pay-for-Availability.</p>

Design Element	Features	Questions / Next Steps / Recommendations	Stakeholder Feedback
	(1e) Capacity Check Test <i>Slides 56-58</i>	RECOMMENDATION: IESO should be able to conduct Capacity Check Tests during the Commitment Period	<p>APPPrO agrees that IESO should be able to conduct Capacity Check Tests during the Commitment Period.</p> <p>Costs associated with conducting the capacity test check should be covered by the IESO for starting and stopping the unit and operating variable cost. If market revenues over the test period are less than the marginal operating and start/stop cost IESO should compensate the generator with a make whole payment. In the event market revenues are greater than the cost of conducting the test no make whole payment is required and the market participant is able to keep the associated proceeds.</p> <p>APPPrO would like to understand how the IESO will conduct Capacity Check Tests for variable generation</p>
	(2a) Response during Emergency Events <i>Slides 60-66</i>	<p>QUESTION: Do stakeholders think that a Pay-for-Performance mechanism should be adopted as part of the ICA?</p> <ul style="list-style-type: none"> If so, under what circumstances should relief be granted for not generating during emergency events? <p>NEXT STEPS: Taking into account stakeholder feedback and system operational needs, the IESO will work with Brattle to further explore whether a Pay-for-Availability and/or a Pay-for-Performance mechanism is appropriate for Ontario and present a recommendation back to stakeholders at a future meeting</p>	<p>APPPrO agrees that a Pay-for-Performance mechanism should be adopted as part of the ICA. Relief of Pay-for-Performance should be granted when dispatched for operating reserve and/or current and future ancillary service products, or transmission outages or derates that are outside management control.</p> <p>APPPrO looks forward to Brattle’s recommendations.</p>

Incremental Capacity Auction – Stakeholder Feedback Form
 Stakeholder Meeting: September 28th, 2017

Design Element	Features	Questions / Next Steps / Recommendations	Stakeholder Feedback
	(3a) Self-Scheduling vs. Dispatchable <i>Slides 67-70</i>	<p>Please identify preferred option and provide supporting rationale.</p> <p>OPTION 1: Only allow Dispatchable resources to participate in the ICA</p> <p>OPTION 2: Allow Dispatchable and limited amount of Self-Scheduling resource to participate in the ICA</p> <p>QUESTION: If participants below a size threshold are allowed to register resources as Self-Scheduling, what considerations should be taken into account when setting the threshold?</p>	<p>Option 1 is the preferred option: Dispatchable resources are preferred.</p> <p>Like the regulated and contracted capacity assets, these assets will impact the available resources at any point in time and their failure to be available places a disproportional burden on the other ICA participants who are subject to Pay-for-Availability and Pay-for-Performance including the dispatch risk associated with backstopping these resources.</p> <p>If self-scheduling resources are allowed in the ICA, they must fundamentally be subject to the same Pay-for-Availability or Pay-for-Performance penalties if they fail to self-schedule when needed. The resource must also be capable of responding when called upon during a system shortage event through emergency instructions from the IESO.</p>
	(3b) Dispatch Dead-band <i>Slides 71-74</i>	<p>QUESTION: What technology specific considerations should be taken into account when setting the dispatch dead-band?</p>	<p>APPrO believes that all participants should be Dispatchable or be able to respond to IESO emergency instructions (if Self-scheduling). APPrO believes that the size threshold should be further studied before commenting.</p> <p>APPrO supports a consistent technology-agnostic deadband based on percentage OPTION 2.</p>

Design Element	Features	Questions / Next Steps / Recommendations	Stakeholder Feedback
		<p>Please identify preferred option and provide supporting rationale.</p> <p>OPTION 1: Absolute Quantity (MW) OPTION 2: Percent of dispatch instruction (%) OPTION 3: A combination of both (MW and %)</p> <p>RECOMMENDATION: Establish a consistent percentage dead-band for compliance with dispatch instruction for all resources, and remove absolute quantity (MW) thresholds</p> <p>NEXT STEPS: Assess appropriate threshold for dead-band based on stakeholder and internal IESO consultations</p>	<p>APPPrO concurs with IESO’s recommendation.</p>
	<p>(3c) Minimum Dispatch Duration <i>Slides 75-78</i></p>	<p>QUESTION: What technology specific considerations should be taken into account establishing the minimum dispatch duration?</p> <p>NEXT STEPS: Conduct further analysis of system needs to set the minimum dispatch duration based on reliability studies, taking into consideration resource type and capability</p>	<p>We suggest revisiting this based on Brattle’s report, as we would be cautious about providing technology specific considerations independent of what the system needs. APPPrO believes that the minimum dispatch duration should be based on the system needs.</p>

<p>(3d) Resource Operational Limitations <i>Slides 79-82</i></p>	<p>QUESTION: What specific operational limitations should be considered for each type of resource?</p>	<p>APPrO supports the IESO’s position that there is a need to establish a consistent capacity product and that careful consideration of the different resource operational characteristics should be reflected in the capacity product definition.</p> <p>To the extent possible, the capacity product should have uniform obligations such that every MW is capable of contributing the same system value regardless of the resource’s technology within certain technology specific limitations.</p> <p>We would also generally agree with the examples presented by the IESO with the following additional comments.</p> <p>With respect to thermal resources the capacity product definition needs to be cognizant of the start-up time constraints. Depending on the cold starting condition, the time from dispatch to minimum load can vary from 2 to 6 hours. Similarly, the ramp rate of the facility over its entire operational range needs to be considered in the product definition as well as the minimum run time and in some cases, and the minimum down time period following a shutdown.</p> <p>APPrO also encourages the IESO to consider the certainty of fuel supply for thermal resources in its definition. Firm gas supply arrangements increase the certainty, availability and duration of a thermal resource’s capacity contribution albeit at a cost in terms of the fixed gas management arrangements that need to be put in place. In other electricity market jurisdictions fuel supply certainty is often supported via dual fuel –</p>
---	---	--

Incremental Capacity Auction – Stakeholder Feedback Form
 Stakeholder Meeting: September 28th, 2017

Design Element	Features	Questions / Next Steps / Recommendations	Stakeholder Feedback
			<p>natural gas and fuel oil – at additional cost and often with stakeholder/permitting impacts.</p> <p>With respect to storage, the definition needs to take into consideration the need to charge and the ability of storage resources to operate in both supply and load directions. Assuming that the minimum duration over which a resource is required to deliver on its Capacity Obligation has been determined in (3c), then the state of the charge and its relationship to the maximum capacity (supply), maximum load, and duration of supply or load needs to be considered in the definition. For example, a storage resource with full charge can operate as a supply resource only for the minimum duration. With an empty charge, it can operate only as a load at full capacity. With a charge of 50% a storage resource can operate at maximum capacity as either a load or supply resource for half the expected duration.</p> <p>There may be a need for the IESO to assess whether any changes need to be made to remove barriers (i.e. 2-hour mandatory window for adjusting offers/bids, notification requirements to synchronize a generator, etc.) to resources with Capacity Obligations responding to real time events which will be especially important in a Pay for Performance or Pay for Availability mechanism.</p>
		<p>NEXT STEPS: IESO to continue working with stakeholders to investigate options to reduce the unique resource operational limitations such that the ICA procures a consistent/uniform capacity product</p>	<p>APPPrO supports the IESO’s approach to continue to investigate options to reduce the unique resource operational limitations such that the ICA procures a consistent/uniform capacity product</p>

General Comments/Feedback:

The various elements of the design of the ICA, i.e. “pay for performance” or similar such measures, need to be cognizant of the fact that over 50% of the Province’s installed capacity will not be bound by the capacity market rules. The capacity market rules cannot place a disproportionate responsibility / burden on market participants. The proposed pool of non-market participants are not merchant players, and are compensated for the value of their capacity either through regulated rates of return or long-term contracts.

APPPrO believes the introduction of the incremental capacity auction for the intended purposes of providing firm capacity requires a certain level of both incentive and penalty related to the provision of that capacity to ensure suppliers are providing the appropriate level of commitment/service. However, by placing performance requirements that are greater than those placed on other generators with supply contracts already in place with the IESO or regulated rate assets, the IESO is effectively leveraging up the risk of penalty on those participating in the ICA. For instance, if other contracted resources missed a peak event, with little financial impact to them, but that subsequently caused the performance penalties (Pay-for-Performance/Availability) to be extreme for an ICA participant, the ICA participant would be disproportionately penalised for the event unless the ICA participant was appropriately compensated (was paid more than the contracted resource).

While APPPrO believes that Pay-for-Performance/Pay-for-Availability are in principle necessary to get the capacity product the IESO is interested in, the IESO will need to consider what this means in terms of the price that generators may bid into the auction or possibly the need for the auction to be implemented in phases until sufficient resources are procured under the ICA.

We raise as a point for discussion the following questions:

- i. should non-ICA market participants be allowed to export their capacity to adjoining markets over the interties in competition with ICA market participants?
- ii. should non-ICA market participants receive any bonuses in a “pay for performance/availability” construct if they are not subject to the penalties in a “pay for performance/availability” construct?

Furthermore, as stated in our comments dated October 26 2017, it is difficult to provide meaningful feedback on design elements when they are viewed in silos. Therefore, APPPrO reserves its right to provide further comments and/or provide alternative recommendations on each of the design elements once a high-level design is established as this will provide a more comprehensive view of how the elements may work together.

Lastly, as mentioned in past APPPrO submissions, governance (both at an internal IESO process level, e.g., dispute resolution and TO, and at a macro level, e.g. the extent to which government directives operate in or through the market) remains a critical issue and how this issue is managed will determine whether the ICA can credibly claim that it can meet any of its objectives.

