Market Renewal Incremental Capacity Auction
Meeting 4: Response to Stakeholder Feedback

Following the August 16th Incremental Capacity Auction (ICA) stakeholder meeting, the IESO invited stakeholders to provide comments and feedback on a series of design options related to the development of a Demand Curve. For each of the options, the IESO asked stakeholders to:

- Provide responses to the questions posed
- For options presented, indicate their preference along with applicable rationale/supporting arguments
- Identify any aspects that they believe require further elaboration or discussion

The IESO received feedback from:
Association of Major Power Consumers (AMPCO)
Association of Power Producers of Ontario (APPrO)
Bruce Power
Powerful Solutions
Storage Power Solutions
EnerNOC
Hydro Quebec Energy Marketing (HQEM)
Ontario Waterpower Association (OWA)
Power Advisory LLC/Consortium of Renewable Generators
Ontario Power Generation (OPG)

This feedback has been posted on the IESO stakeholder webpage for this engagement.

<u>Note on Feedback Summary</u>
Feedback from stakeholders highlighted a number of important issues and considerations. The key themes highlighted include:

- The ICA should be consistent with government policy and desired outcomes as reflected particularly in the Long-Term Energy Plan and Climate Change Action Plan
- The ICA will be one mechanism among others, such as regulation and contracting, to meet system adequacy both now and in the future

- The need for transparency of information in the design, implementation and ongoing management of the ICA
- The need to have an effective governance structure as it pertains to the design, implementation and ongoing management of the ICA

Stakeholders also provided a number of individual comments and recommendations on the ICA design elements and options presented.

The IESO appreciates the feedback received from stakeholders. This stakeholder feedback, along with the comments provided at the stakeholder engagement sessions, is important to the collaborative approach the IESO has committed to under the Market Renewal Program and will help inform the design of the ICA. All feedback received has been noted and will be considered as the engagement moves toward making preliminary decisions. Stakeholders will have additional opportunities to provide feedback on these elements throughout the high level and detailed design phases of the engagement. Below, the IESO has provided a summary table which outlines responses in respect of specific feedback or questions for which an IESO response was required at this time.

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Stakeholder comments and IESO responses

Issue Area	Company	Stakeholder Feedback	IESO Response
General	Powerful Solutions	The IESO needs to consider alternatives to an 'Auction' process. It is recommended that a RFP process be used whereby the IESO provides the specification of what is required, where it is required, and the proposals evaluated based upon the evaluation criteria (Scoring Sheet and Net Present Value) that was published as part of the Request for Proposal. Successful bidders would be paid their price as bid: - fixed and variable revenues as Capacity services are delivered. Market Renewal needs to focus on straightforward approaches that simplify and focus on activities that will	*A significant amount of the savings identified in the Brattle Report would accrue from the ICA. In addition, the IESO's own experience with an auction for Demand Response resources has demonstrated the ability of this mechanism to expand competition and secure resources at lower cost and greater value to the grid than a procurement and contracting regime.*

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		capture savings identified in the Brattle Group report.	
	Storage Power Solutions	If there are resources on the IESO site that can help me get more familiar with some of the concepts I would appreciate knowing where they are.	*There are two main areas where stakeholders can review previous materials to better understand ICA fundamentals and concepts.* *-The 'Fundamentals' stakeholder meetings held during the summer on the ICA are available here as recorded presentations. These cover all of the concepts which will be part of this engagement.* *-The IESO also held a series of Market Education Workshops in early 2017 which reviewed the rationale and function of each initiative under market renewal. These are available here, also as recorded presentations.*
	APPrO	APPrO remains concerned that the market renewal process does not yet include a stream to examine the impact of the proposals on contracted and regulated suppliers. Without a clear understanding of what these are, their timing, and a commitment to impact mitigation and a strategy from the IESO to keep suppliers economics whole in any transition, it may be challenging for all suppliers to support such a broad market renewal effort.	*The IESO will continue to work with stakeholders on contract implications relating to Market Renewal. The IESO presented a high level plan concerning contract discussions at the August Market Renewal Working Group (MRWG) meeting. The MRWG and the IESO agreed that a separate working group may be advisable once more of the high level market design elements have been established.* *The IESO also provided a webinar on October 31, 2017 relating to contractual considerations and Market Renewal. This is available as a recorded presentation here.*
	Bruce Power	Capacity auctions should be able to secure incremental capacity in accordance with government policy objectives in many cases but contracts or a regulatory support mechanism will still be required for projects that have longer lives, larger capital investment costs and longer planning and licensing periods.	*An ICA is intended to work within and alongside the existing policy and regulatory framework. The IESO understands that alternative or complementary mechanisms may be necessary for certain large scale or strategic resources (e.g. nuclear, large hydro, etc.).*
Draft Goal	Bruce Power	The LTEP should continue to plan for large generation new build or major refurbishment. These should be procured in	*See previous response.*

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		a manner that recognizes, among other things, their socio-economic value and the system stability they provide. LTEP should continue to represent the broader policy framework from which ICA should operate.	
	Powerful Solutions	As existing contracts/rate regulated agreements expire, a process needs to be established that determines whether contracts are renewed, or are to participate in the Incremental Capacity process. The process should be technologically agnostic and driven by what will meet resource adequacy and reliability at the lowest long term costs.	*The ICA is intended to be a sustainable market mechanism that will allow all eligible resources to participate if they are not rate regulated or under active contracts.*
	Storage Power Solutions	The statement is good but it seems to have left out dealing with the purpose which my understanding is to ensure resource adequacy. Defining resource adequacy would be too much for the statement but it should be referenced inside the statement perhaps in quotation marks as it is a key component in operating the grids that the IESO manages.	*The Goal Statement currently references ensuring "Ontario's resource adequacy needs are met…" and the IESO agrees that defining "resource adequacy" here would be too much detail for a concise Goal Statement. Resource Adequacy has been discussed in further detail during the Fundamentals phase and the discussion of the Target Capacity design element and will continue to be discussed throughout both the High Level and the Detailed Design.*
	EnerNOC	EnerNOC supports the goal as outlined, however EnerNOC recommends that the province, the IESO and the stakeholder community strive to create a competitive auction mechanism that is sustainable and could bring the rate regulated resources, and other contracted resources under its purview over time.	*The ICA is intended to be a sustainable market mechanism that will allow all eligible resources to participate if they are not rate regulated or under active contracts. The ICA will evolve over time and, as part of future enhancements, the participation of contracted and rate regulated resources may be reconsidered in consultation with stakeholders.*
	APPrO	Broader government environmental and electricity policies, goals, and objectives should be explicitly stated or referenced.	*The phrase "within the broader policy framework" was chosen deliberately because of its breadth and comprehensiveness. Stakeholders have identified the need for market renewal – and IESO activities more*

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		What is required is a procurement mechanism where resource needs are obtained to meet defined needs as measured by independent criteria and, if those criteria are not applied because of a policy override, then the policy override must be clearly stated. Without such assurance, there is no reason to think that procurement under an ICA will be different than procurement under any other mechanism that has been used in the past. Within that context, the following changes are proposed: *The Incremental Capacity Auction Project will develop and implement an enduring market-based capacity procurement mechanism that will, alongside contracted and rate regulated resources, be designed to ensure that decisions to procure capacity will be based on Ontario's resource adequacy needs are met cost effectively within the broader government environmental and electricity policies, goals, and objectives that the IESO will clearly and transparently articulate. The IESO will ensure that all communications between the government and the IESO respecting procurement decisions will be made public.*	*generally – to be broadly consistent with all government policies whether in the energy, environmental, economic or other spheres. Such policies are publically communicated through a variety of means, including legislation, regulations and Ministerial Direction to the IESO.* *The design of the ICA will be guided by the Guiding Principles, Goal and Objectives that have been established in consultation with stakeholders.* *Transparency is a Guiding Principle of the Market Renewal Program. To the extent that stakeholders request greater transparency concerning any of the processes necessary to administer the ICA, the IESO will endeavour to accommodate such requests, subject to objective constraints (such as availability, confidentiality, privacy, commercial sensitivity, and security limitations).*
	OWA	Stakeholder input (both SE and MRWG) specifically identified a need to explicitly sate that "large hydro" would not be able to participate in the ICA due to its design. The same could be said for almost any Greenfield hydro. The caveat "alongside contracted and rate regulated resources" does not adequately capture this. It is recommended that the goal be amended to "alongside	*The IESO understands that alternative or complementary mechanisms may be necessary for certain large scale or strategic resources (e.g. nuclear, large hydro, etc.).* *The Goal Statement and Objectives for the ICA are intended to be read together. Rather than revising the Goal Statement, in order to clarify that some portion of resource adequacy needs will be met by mechanisms outside of the ICA; the IESO proposes changing the first*

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		contracted and rate regulated resources and other procurement mechanisms" The phrase "within the broader policy framework" is too vague. It should be amended to read "to align with the LTEP and government policy objectives"	*Objective to the following: "Secure capacity to meet incremental resource adequacy needs that are not met by alternative mechanisms such as contracts or rate regulation".* *The phrase "within the broader policy framework" was chosen deliberately because of its breadth and comprehensiveness. Stakeholders have identified the need for Market Renewal – and IESO activities more generally – to be broadly consistent with all government policies whether in the energy, environmental, economic or other sphere.*
	Renewables Consortium	Regarding the draft goal statement, it is recommended that the statement be amended to: "The Incremental Capacity Auction Project will develop and implement an enduring market-based capacity procurement mechanism that will, <u>alongside contracted and rate regulated resources and other procurement mechanisms</u>, ensure Ontario's resource adequacy needs are met cost effectively within the broader policy framework" for the following reasons: • On balance, given relatively limited participation anticipated for some resources within the ICA and depending on the ICA design, the resources projected to be secured through each auction are uprates to existing gas-fired generation (e.g., Non-Utility Generators (NUGs) with expired Power Purchase Agreements (PPAs), gas-fired generation with expired IESO contracts), Demand Response (DR), and imports. • In securing relatively low cost capacity all with the same performance requirements to produce energy	*See previous response.*

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		when the power system most requires energy, relatively cheap fossil-based resources (e.g., gas-fired generation uprates in Ontario, U.S. imports from coal- and gas-fired generation) project to be secured at the expense of renewable generation, some conservation and demand management (CDM) resources, and emerging technologies (e.g., energy storage, etc.). • If the ICA is designed similar to the centralized Capacity Markets in ISO-NE, NYISO, and PJM, then mechanisms like contracts will still be needed if Ontario is to procure resources such as renewable generation, some CDM, and emerging technologies (e.g., energy storage, etc.) – as these resources best meet applicable Ontario Government policies and objectives (e.g., climate change, etc.). The draft goal statement does not specifically identify the "broader policy framework". • Recommendation: It is therefore recommended that the IESO amend the goal statement to identify which broader policy frameworks are included. For example, is the goal to ensure Ontario's resource adequacy needs are met cost effectively while also achieving the Ontario Government policy objectives as set out in the Long-Term Energy Plan and associated government directives?	
	OPG	Need for clarification of the following points: • Reinforcement that certain assets; such as, large hydroelectric and nuclear are not intended to be part of the ICA. One suggestion would be to change the	*The IESO understands that alternative or complementary mechanisms may be necessary for certain large scale or strategic resources (e.g. nuclear, large hydro, etc.).*

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		third sentence to read "in addition to contracted, rate regulated resources and resources procured through alternative mechanisms, ensure…". • Change "within the broader policy framework" to "align with the LTEP and government policy objectives". Although we understand that the IESO would like to keep the goal broad, it should be more specific regarding the policy framework that is being referred to.	*The phrase "within the broader policy framework" was chosen deliberately because of its breadth and comprehensiveness. Stakeholders have identified the need for Market Renewal – and IESO activities more generally – to be broadly consistent with all government policy whether in the energy, environmental, economic or other spheres.*
Draft Objectives	Powerful Solutions	The LTEP and Regional Planning documents should provide the context for the need for incremental capacity, and the region where it is required. The Capacity Procurement documents should provide more specifics as to the need for and business case for incremental capacity.	*The need for incremental capacity will be determined as part of the process established for calculating Target Capacity and will be based on maintaining resource adequacy standards.*
	Storage Power Solutions	The objective must remain within the policy guidelines and I feel that the objectives should tie back to the principles in slide 12.	*The overarching MRP Guiding Principles are foundational to the ICA and intended to be read together with the ICA-specific Goal and Objectives. The Guiding Principles will help inform the manner in which the various design elements are put into practice.*
	APPrO	It will be necessary to create a process designed to ensure that the ICA will be used to identify and procure resources so that they are aimed at meeting incremental resource adequacy needs at the lowest cost in the long run. If there are policy reasons which depart from goal of meeting incremental resource adequacy needs at the lowest cost in the long run, those reasons will be clearly stated by the IESO, and the IESO will ensure that all communications between the government and the IESO respecting procurement decisions will be made public.	*The ICA is intended to work within and alongside the existing policy and regulatory framework. The phrase "within the broader policy framework" in the Goal Statement was chosen deliberately because of its breadth and comprehensiveness. Stakeholders have identified the need for Market Renewal – and IESO activities more generally – to be broadly consistent with all government policy whether in the energy, environmental, economic or other spheres. Such policies are publically communicated through a variety of means, including legislation, regulations and Ministerial Direction to the IESO.* *Transparency is a Guiding Principle of the Market Renewal*

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			Program. To the extent that stakeholders request greater transparency concerning any of the processes necessary to administer the ICA, the IESO will endeavour to accommodate such requests, subject to objective constraints (such as availability, confidentiality, privacy, commercial sensitivity, and security limitations).
	Bruce Power	The Long Term Energy Plan should continue to establish energy policy objectives. The goals and decision on supply mix for the Ontario power system should continue to be established in the LTEP providing the broader policy framework from which a renewed market will operate.	*The ICA is intended to work within and alongside the existing policy and regulatory framework.*
	OWA	The objective "to meet incremental resource adequacy needs" is too vague. • It should be clarified that the ICA is only one mechanism used to procure capacity (other mechanisms include contracts and regulated rates). It could be restated as "Contribute to incremental resource adequacy needs..." or • Alternatively "incremental" should be defined. It is also important that the first objective references that the ICA will be designed to be a competitive market based mechanism as opposed to another type of procurement. • A suggestion would be the following: "Contribute to incremental resource adequacy needs through a competitive market based mechanism". If the goal statement is not revised to be more specific regarding government policy, a third objective should be	*In order to clarify that some portion of resource adequacy needs will be met by mechanisms outside the ICA, the IESO proposes changing the Objective to the following: "Secure capacity to meet incremental resource adequacy needs that are not met by alternative mechanisms such as contracts or rate regulation".* *The ICA is intended to be a sustainable and competitive market mechanism. This is reflected in the Goal Statement and the Strategic Outcomes, which are intended to be read together with the Objectives.* *The phrase "within the broader policy framework" was chosen deliberately because of its breadth and comprehensiveness. Stakeholders have identified the need for Market Renewal – and IESO activities more generally – to be broadly consistent with all government policy whether in the energy, environmental, economic or other spheres.* *The IESO has existing long-term planning processes that will continue to identify system needs and situations where strategic investments in*

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		added to reflect this alignment: • A suggestion would be - "Align with the LTEP and government policy objectives". • There needs to be additional definition in the phrase "lowest cost in the long run". Is this intended to address lifecycle cost differences between energy sources? – Waterpower assets last 100+ years while most other technologies have a much shorter lifespan. • The mechanism for determining lowest cost in the long run needs to be transparent and stakeholdered.	*long-term assets (e.g. nuclear, large hydro, etc.) may be appropriate. Experience in other jurisdictions suggests that once incremental capacity needs have been identified as being best met through a capacity auction, the competitive outcomes facilitated by the auction mechanism should facilitate securing capacity at the lowest cost in the long run.* *In circumstances where mechanisms outside of the ICA are considered, the analyses and process for determining long term value and cost effectiveness would be outside the scope of the ICA.*
	Renewables Consortium	Regarding Objective 1, is the ICA intended to be the sole mechanism to procure incremental capacity? As identified previously in this feedback form, standard capacity market design does not lend itself well to participation from some resource types (wind and solar, for example). Therefore depending on the design of the ICA, some resources will have limited or no ability to participate. Considering this fact along with potential future government supply mix or environmental objectives, other procurement mechanisms (including power purchase agreements and regulated rates) may be required to procure capacity. • Recommendation: Modify Objective 1 to reflect the fact that the ICA will meet a portion of incremental resource adequacy needs.	*The ICA is intended to be a sustainable market mechanism that will allow all eligible resources to participate if they are not rate regulated or under active contracts. The design of the ICA is intended to allow for diverse participation, including that of wind and solar. An MRWG non-emitting resources sub-committee has been launched to further explore any potential barriers to participation and to explore whether additional mechanisms to support these resources may be necessary.* *In order to clarify that some portion of resource adequacy needs will be met by mechanisms outside the ICA, the IESO proposes changing the Objective to the following: "Secure capacity to meet incremental resource adequacy needs that are not met by alternative mechanisms such as contracts or rate regulation".*
	OPG	The objective "to meet incremental resource adequacy needs" is vague. • The ICA is only one mechanism used to procure capacity (other mechanisms include contracts and	*In order to clarify that some portion of resource adequacy needs will be met by mechanisms outside the ICA, the IESO proposes changing the Objective to the following: "Secure capacity to meet incremental resource adequacy needs that are not met by alternative mechanisms*

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		regulated rates). A clarification suggestion would be: "Contribute to incremental resource adequacy needs..." or alternatively "incremental" should be defined. There should be an objective that recognizes the ICA will be designed as a competitive market based mechanism and not another type of procurement. • A suggestion would be the following: "Contribute to incremental resource adequacy needs through a competitive market based mechanism". There should be an objective added to reflect the alignment with government policy: • A suggestion would be "Align with the LTEP and government policy objectives". The statement "lowest cost in the long run" needs to be defined. It's unclear how costs in a short term capacity auction will align with long run costs other than through the Net CONE calculation. The Net CONE calculation should not use a reference technology with a long lead time or life expectancy; such as nuclear and hydro. Is "resource adequacy" and "capacity" intended to be defined differently in this context?	*such as contracts or rate regulation".* *The ICA is intended to be a sustainable market mechanism that operates within the broader policy framework. This is reflected in the Goal Statement, which is intended to be read together with the Objectives.* *The IESO has existing long-term planning processes that will continue to identify system needs and situations where strategic investments in long-term assets (e.g. nuclear, large hydro, etc.) may be appropriate. Experience in other jurisdictions suggest that once capacity needs have been identified as being best met through a capacity auction, the competitive outcomes facilitated by the auction mechanism should facilitate securing capacity at the lowest cost in the long run.* *The inputs into the Net CONE calculation will be determined in later phases of the ICA design and implementation, which will allow for additional stakeholder engagement.*
Draft Strategic Outcomes	Powerful Solutions	Agree with what has been provided - should also add: (1) Provide a positive contribution to the Market Renewal cost savings outlined in the Brattle Report.	*The ICA, as part of the broader Market Renewal Program, will be subject to a business case review process prior to implementation that will confirm that ratepayer value, in line with what was identified in*

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		(2) Transparency requires Simplicity - the more complex the process, the less transparent as only the 'experts' will understand, and then stakeholders will not trust the process	*the Benefits Case, will be achieved.* *Transparency is facilitated through the robust stakeholder engagement process and educational resources intended to simplify complex content and ensure a common understanding of the intent and application of the design.*
	APPrO	APPrO considers that this can only be achieved if the right governance structure is in place: • Decisions for the identification and procurement of capacity will be based on clear and transparent objective criteria • All communications between the government and the IESO respecting procurement decisions will be made public. • How is conflict resolution to be managed? For example it is important to have a referee. In NY, FERC allowed Market Participants an avenue to have things changed when rules were not being followed. How will this be done in Ontario given the current governance structure?	*To the extent that specific governance-related issues arise or are identified by stakeholders in this forum or any other Market Renewal Program work stream, these issues may be referred to the MRWG with a feedback loop to the stakeholder engagement to ensure transparency.* *Issues relating to dispute resolution have been referred to the MRWG for consideration. The results of these discussions will be shared with the ICA Stakeholder Engagement as details become available.* *Where a governance issue is identified that may have a broader impact on the governance of the Market generally, the IESO as a whole, or the broader legislative or regulatory framework, deliberation by the MRWG will be limited to the discrete impact on the Market Renewal Program.* *Transparency is a Guiding Principle of the Market Renewal Program. To the extent that stakeholders request greater transparency concerning any of the processes necessary to administer the ICA, the IESO will endeavour to accommodate such requests, subject to objective constraints (such as availability, confidentiality, privacy, commercial sensitivity, and security limitations).*
	Bruce Power	With LTEP forming the broader policy framework from which ICA will be based, the IESO should demonstrate	*The phrase "within the broader policy framework" was chosen deliberately because of its breadth and comprehensiveness. Stakeholders*

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		how ICA will enable the market to fully realize policy objectives in a cost effective way. How the IESO will be able to maintain diversity in resource type while meeting environmental objectives though the ICA process is as yet unclear.	*have identified the need for Market Renewal – and IESO activities more generally – to be broadly consistent with all government policy whether in the energy, environmental, economic or other spheres.*
	OWA	There should be a strategic outcome that recognizes that ICA will be only one mechanism that secures incremental capacity. Suggest: "The ICA complements other procurement mechanisms (e.g. contracts) to ensure resource adequacy" The term "Diverse resource types" should be expanded to "All available resource types" Add an outcome "Is aligned with other streams of market renewal" Add an outcome that enables adaptation over time based on lessons learned (i.e. the process is flexible) All processes, assumptions and models are open, clear and transparent to all stakeholders and there is opportunity for stakeholder feedback and input into each auction. Risk needs to be defined; if talking about cost allocation (Capacity vs. energy) then setting demand curve is going to be very important. Resource participation depends on design; this design must	*Please see earlier response in relation to OWA's comments on the draft Objectives.* *The use of "diverse" was intended to signal that the ICA is intended to facilitate as many resources types as possible within the technical, legal and policy constraints that apply to the Ontario electricity sector.* *The Strategic Outcome relating to the auction evolving over time is intended to include any changes required due to developments in other streams of the Market Renewal Program.* *Transparency is a Guiding Principle of the Market Renewal Program. The IESO is committed to robust stakeholder engagement in the design of the ICA.* *Risk is intended to refer to all forms of project risk that would impact the economics of a capacity resource.*

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		be directly linked to LTEP and policy objectives.	
	OPG	Additional strategic outcomes for consideration are: • Alignment with other Market Renewal Project workstream although this is implied it is important enough to be reinforced • All processes, assumptions and models are open, clear and transparent to all stakeholders and there is opportunity for stakeholder feedback and input into each auction. o This includes the amount relied on from base assets (those not included in the auction) and the incremental target capacity amount to be procured in the auction over and above this base amount. o It also requires a sufficient forecast duration that captures the forward, commitment and a reasonable post auction period. An evaluation of lessons learned after each base or main auction is critical and should be factored into the assumptions and criteria used to adjust the design of the next auction. • Consider making this review or audit a mandatory requirement in the market rules. It should be reinforced that the auction design needs to be flexible to evolve and adapt not only as the sector changes but also as resource adequacy and government policy needs change. Market rules need to be flexible to allow for adjustments in the forward and commitment periods when new facilities	*The IESO agrees that it will be important for the ICA to be aligned with the other streams of Market Renewal. The Strategic Outcome relating to the auction evolving over time is intended to include any changes required due to developments in other streams of the Market Renewal Program.* *Transparency is a Guiding Principle of the Market Renewal Program. The IESO will endeavour to help ensure that stakeholders have all necessary information to make informed decisions. To the extent that stakeholders request greater transparency concerning any of the processes necessary to administer the ICA, the IESO will endeavour to accommodate such requests, subject to objective constraints (such as availability, confidentiality, privacy, commercial sensitivity, and security limitations).* *Issues related to stakeholder involvement in the process of setting, and re-setting, the parameters that feed into the Demand Curve have been referred to the MRWG for consideration. The results of these discussions will be shared with the ICA Stakeholder Engagement as details become available. Where a governance issue is identified that may have a broader impact on the governance of the Market generally, the IESO as a whole, or the broader legislative or regulatory framework, deliberation by the MRWG will be limited to the discrete impact on the Market Renewal Program.* *The IESO agrees that the auction will need to evolve over time to incorporate lessons learned from previous auctions. The suggestion to make regular reviews of the performance of the auction a mandatory requirement in the Market Rules will be considered further in the high*

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		need to be constructed that require longer lead times for regulatory approvals and sufficient revenue certainty for the supplier to lower their cost of risk (which is reflected in the auction clearing price that the customer bears). The third bullet, should be rephrased to indicate that "all qualified resource types" are enabled to compete not necessarily only "diverse resources".	*level and detailed design, which will allow for additional stakeholder engagement.* *The design of the Forward Period and Commitment Period are intended to balance the value of having a diverse set of resources participate, with the value of minimizing costs associated with over procurement. It will be necessary to have a clear and consistent basis by which resources will compete to meet needs within the ICA. This however, does not preclude the option of potentially including an option for a "Multi-Year Commitment" feature which will be the subject of an upcoming meeting.* *The use of "diverse" was intended to signal that the ICA is intended to facilitate as many resources types as possible within the technical, legal and policy constraints that apply to the Ontario electricity sector.*
	Renewables Consortium	Regarding the objective "Diverse resource types are enabled to compete to meet resource adequacy needs", the Consortium offers the following comments: • The successful participation of various resource types will be highly dependent on the actual design of the ICA and whether or not the design considers and links to Ontario's environmental objectives. • Traditionally, centralized Capacity Markets provide relatively less capacity revenues to renewable generation (especially so for wind generation) compared to nuclear, coal-, and gas-fired generation. Therefore the procurement of renewable resources needs to be carefully considered in the context of any ICA. For example, if the IESO intends for the ICA	*A MRWG non-emitting resources sub-committee has been launched to further explore any potential barriers to participation and to explore whether additional mechanisms to support these resources may be necessary.* *To the extent that specific governance-related issues arise or are identified by stakeholders in this forum or any other Market Renewal Program workstream, these issues may be referred to the MRWG with a feedback loop to the stakeholder engagement to ensure transparency.* *Where a governance issue is identified that may have a broader impact on the governance of the Market generally, the IESO as a whole, or the broader legislative or regulatory framework, deliberation by the MRWG will be limited to the discrete impact on the Market Renewal Program.*

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		design to successfully attract diverse resource types including renewable generators, some specific design mechanism will be needed to best marry Ontario's power system needs with applicable Ontario Government policies with cost effective results. • Under this scenario, the IESO and stakeholders should explore how carbon pricing or similar could be directly addressed through the ICA design, which would better ensure participation of renewable generation, CDM, and emerging technologies (e.g., energy storage, etc.) within auctions. This is exactly the time of input that the aforementioned Sub-Committee should be called upon to provide, and given the pace of the ICA engagement and the MRP overall, such discussions should be initiated immediately. Regarding the objective "Auction design evolves over time to address sector changes and improve auction outcomes", the Consortium offers the following comments: • As with all areas of market design, there is an expectation that ICA-related Market Rules will change and design elements will evolve over time. • Any increased risk shift to investors in the market (i.e. move towards less reliance on procurement contracts) through greater participation within Ontario's wholesale electricity market (e.g., ICA, etc.) will require a new governance framework to be developed. o e.g., contract terms and conditions can effectively address present lack of independent oversight and governance within Ontario's electricity market,	*Transparency is a Guiding Principle of the Market Renewal Program. The IESO is committed to robust stakeholder engagement in the design of the ICA.*

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		through sufficient protections (in the event of unforeseen changes). • As a general consideration, as the market evolves an effective governance framework will be needed in order to provide clarity, confidence, and transparency regarding changes to IESO Market Rules and wholesale electricity market design, where market participants and stakeholders have the ability to actively participate within applicable wholesale market change processes so as to be able to express their view points and protect their business decisions and investments.	
Target Capacity	AMPCO	AMPCO requests additional information on advantages of facility specific forced outage information rather than average values.	*Compared to the 'class' average forced outage information, facility specific forced outage information more accurately reflects the availability of each facility. Based on available information, the IESO understands that the main advantages of using facility specific forced outage information are:* 1. *The incremental needs determined by the IESO to meet the resource adequacy requirements would be more accurate.* 2. *The UCAP value determined through the Qualified Capacity process will reflect the actual performance of the facility such that better performing facilities will have higher UCAP ratings, and vice versa.*
	AMPCO	Can the IESO discuss why the Incremental Capacity Auction does not consider the short run marginal cost of generation?	*The ICA will play a critical role in supporting least cost decision-making from a long-run or investments perspective. The energy and ancillary services markets play the most central role in supporting least cost decision-making from a short-run or operating perspective. Together, these complementary market systems will help reduce total*

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			costs in both the short run and the long run.
	AMPCO	How is the "Contracted/Regulated contribution" determined when calculating the Target Capacity? This number is key and should be a component of MR (or at the very least, understood).	*The "contracted/regulated contribution" will be determined using a methodology that captures the contribution of these resources towards meeting the reliability requirement (LOLE <= 0.1days/year).* *The details of this process will be determined during the detailed-design phase, which will allow for additional stakeholder engagement.*
	AMPCO	Suggest that the IESO discusses the need for holdbacks with the DRWG regarding the ability of DR resources to only participate with a shorter forward period.	*In general, feedback regarding design considerations for the ICA should be provided as part of the ICA Stakeholder Engagement process. Where appropriate, the IESO may raise certain design questions in other forums, such as the DRWG.*
Hold Back	Storage Power Solutions	Further transparency as to why PJM abandoned their holdback would be good.	*Based on available information, the IESO understands that PJM had originally adopted the holdback for two reasons: (1) to protect against over-forecasting, and (2) to provide greater opportunities for short-term resources, particularly DR, to participate. The IESO understands that PJM later eliminated the holdback based on their determination that there had been significant participation from DR and other short lead-time resources in the 3-year forward auction, and based on concerns from the Market Monitor and PJM staff that the holdback could be unnecessarily suppressing three-year forward market prices. PJM has also pursued changes to its load forecasting approach to reduce over-forecasting bias.*
	OWA	There should not be a specific objective of "trying to support short lead time resources" as this necessarily precludes participation from some sources This decision should be flexible to change with each	*The objective of the ICA is to enable all resource types to participate on a level playing field to the extent possible, while striking a balance between consistency for participating resources and accommodation of the characteristics of a range of different resource types to maximize the opportunities for competition across technologies.*

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		auction, and related to the type of resource needed at the time	*The ICA is intended to facilitate as many resources types as possible within the technical, legal and policy constraints that apply to the Ontario electricity sector.*
Transparency and Certainty	AMPCO	Notwithstanding that we will be discussing eligibility requirements for ICA participants, it looks like we will simply be accepting whatever the capacity ratings are for contracted and regulated resources (slide 33) – which will be used to determine Target Capacity. Is that the case, and is that reasonable?	*The "contracted/regulated contribution" will be determined using a methodology that captures the contribution of contracted/regulated resources towards meeting the reliability requirement (LOLE <= 0.1days/year).* *The details of the process will be determined during the detailed-design phase, which will allow for additional stakeholder engagement.*
	AMPCO	Reserve requirement? Or Reliability Requirement? This is confusing.	*In the context of determining the "Target Capacity", Reliability Requirement is the term that is used, which represents the minimum amount of capacity required to meet the resource adequacy criteria (LOLE <0.1 days/year). Reliability Requirements include both Reserve Requirements and Peak Demand.*
	AMPCO	How is EFOR calculated for thermal units (gas, nuclear and oil only?).	*The forced outage rates for thermal resources are calculated consistent with IEEE standard 762: Standard Definitions for Use in Reporting Electric Generating Unit Reliability, Availability, and Productivity. The current methodology uses a rolling 5-year historical outlook when calculating the forced outage rates for thermal resources.*
	EnerNOC	EnerNOC recommends that the IESO provide the following information: -Projected fixed contract expiration by delivery year -Prior system peak loads (by zone and coincident) -Peak load forecast going forward	*The IESO will endeavour to accommodate the requests to provide the information identified, subject to objective constraints (such as availability, confidentiality, privacy, commercial sensitivity, and security limitations).*

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		-Loss of Load Expectation (LOLE) sensitivity to reserve margin values considered -Same drivers behind load zone constraints (if any)	
	HQEM	This information is required : -Zonal consideration -List of withdrawals of assets which can provide capacity -List of all the installation and their amount of capacity which they can offer (example: the Gold Book in NYISO) -Capacity available per intertie -Seasonal forecast of capacity needs -Results of modelization regarding forward period length -Scenarios depending on the type of fuel used to generate capacity -Weather scenarios -Demand Curve model -Information related to reliability requirements	*See previous response.*
	APPrO	As a matter of general principle the default should be all information, other than truly confidential information, should be provided. APPrO suggests that something more closely related to an Integrated Resource Plan (IRP) would be required. Market Participants should be able to duplicate the IESO's analysis as a check & balance and to determine if there is an error in the analysis Out of market agreements and/or arrangements made by or being considered by government (e.g., the ON-HQ deals)	*Transparency is a Guiding Principle of the Market Renewal Program. To the extent that stakeholders request greater transparency concerning any of the processes necessary to administer the ICA, the IESO will endeavour to accommodate such requests, subject to objective constraints (such as availability, confidentiality, privacy, commercial sensitivity, and security limitations).*

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		need to be explicitly and publicly accounted for.	
	OWA	IESO should provide the modeling assumptions as well as access to the models -The establishment of target capacity should be undertaken through a stakeholder process with technical representatives from demand/supply/transmission -The IESO should consider using third party expertise and having the result subjected to independent review and approval (e.g. OEB) -The Outlook period used needs to match commitment period (e.g. 7 years) -There needs to be clarity on what forecast is used for contracted and rate regulated (i.e. base) -Demand Side – Stakeholders need to understand the methodology IESO uses to forecast demand and the inputs the IESO uses to forecast demand. -Supply Side – Stakeholders need to understand the capacity contribution from rate regulated assets (even though they are not participating in the ICA, they are part of resource adequacy) by unit.	*The IESO will endeavour to accommodate requests to provide the information identified, subject to objective constraints (such as availability, confidentiality, privacy, commercial sensitivity, and security limitations).* *The IESO has made a preliminary decision that a third party will be retained to establish CONE.* *The IESO is exploring publishing Target Capacity outlooks with forecasts looking out 5-10 years.*
	Renewables Consortium	Demand Side Information: Stakeholders need to understand the methodology IESO uses to forecast demand, and inputs IESO uses to forecast demand, and the contribution of distributed generation and CDM on the forecast demand. • Stakeholders also need to understand how IESO establishes the Reserve Margin with linkages back to NPCC and NERC.	*Please see previous response regarding information requests.* *The IESO will consider the recommendations to establish both a "Demand Forecasting Working Group" and a "Supply Adequacy Working Group" in connection with the ongoing governance discussions that are underway with the MRWG. These issues may be referred to the MRWG with a feedback loop to the stakeholder engagement to ensure transparency.*

Issue Area	Company	Stakeholder Feedback	IESO Response
		• Recommendation: IESO should establish an ongoing Demand Forecasting Working Group. • Supply Side Information: Stakeholders need to understand the capacity contribution from rate regulated assets (even though they are not participating in the ICA, they are part of resource adequacy) by unit, and the capacity contribution for transmission-connected contracted assets. Stakeholders also need to understand relative capacity contribution and import capability of the interties. • Recommendation: IESO should establish an ongoing Supply Adequacy Working Group.	*Where a governance issue is identified that may have a broader impact on the governance of the Market generally, the IESO as a whole, or the broader legislative or regulatory framework, deliberation by the MRWG will be limited to the discrete impact on the Market Renewal Program.*
Timelines	Powerful Solutions	The IESO should also specify whether they are seeking an Expression of Interest, or Firm Commitment along with the evaluation criteria to be used to select from amongst participants. Participants selected would be provided a limited time frame to arrange financing, permitting, etc. within which to firm up arrangements and finalize the contract.	*If a seller is offering in the ICA, the IESO assumes that there is a firm commitment on their part to develop and deliver capacity should they clear the auction. There ICA will provide for specific obligations and consequences if such obligations are not met.* *In the detailed design phase, which will allow for additional stakeholder engagement, the IESO will determine more specifically what, if any, financing and permitting milestones will need to be completed prior to qualifying for the ICA. In general those requirements would require a demonstration of the potential to develop the resource within the allotted timeframe. Some permitting and financing milestones may not be required until a later deadline closer to delivery.*
	APPrO	Can the IESO please clarify what is meant by Question 1? Many of the activities (as presented in the examples) occur during the "forward period" and not after publication of the Target Capacity (as the TC is usually published closer	*The intent of the question was to obtain a sense of how long potential participants in the ICA would need in order to develop their offers once the Target Capacity and other pre-auction report details are provided. This will be a consideration in determining when the Target Capacity*

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		to the auction itself). As the forward period is a design element on its own, APPrO is not clear as to the intent of the question.	*outlook forecasts should be provided.*
Net CONE (General)	AMPCO	We need to understand the basis for all the demand curve multiples and CONE values used by the various jurisdictions. They appear to be somewhat arbitrary and are likely the result of horse-trading during filings at FERC.	*The basis and rationale for the demand curve parameters in other jurisdictions will be discussed when presenting preliminary recommendations and in the detailed design stage, which will allow for additional stakeholder engagement. The selection of specific values for the various demand curve parameters will be assessed holistically to ensure that the objectives of the ICA are achieved.*
Net CONE (Reference Technology)	AMPCO	Determining the reference technology - This could be very political. Can CTs be used within the context of CCAP? If not, how would the reference technology be determined? We need to understand the basis for all the demand curves and technologies used by different jurisdictions.	*The choice of the reference technology (which will be referred to as "Basis for Reference Price" going forward) typically reflects a type of generation that has been demonstrated to be feasible and economically viable within a region. The choice of the Basis for Reference Price in Ontario will also reflect the broader policy framework.*
	Powerful Solutions	The selection of Capacity should be technologically agnostic, and therefore selecting a 'reference technology' would be a mistake. Capacity could be defined as MW needed daily, for a specified daily duration. This definition would be technologically agnostic and short duration daily Capacity would provide the opportunity for proposals for that include Energy Storage, Demand Response, etc. Short duration capacity could also provide Energy and Ancillary Services as a secondary benefit.	*The choice of the reference technology (which will be referred to as "Basis for Reference Price" going forward) typically reflects a type of generation that has been demonstrated to be feasible and economically viable within a region. The use of a Basis for Reference Price in determining Net CONE will not preclude the participation of diverse resources.* *The ICA design is intended to facilitate as many resource types as possible. Experience in other jurisdictions suggests that the objectives of capacity auctions are best met if a diverse set of resources are able to compete.*

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	AMPCO	IESO needs to ensure reference technology choices are consistent not just with environmental laws and government policy, but with system flexibility needs - i.e. ramp limited units chosen in a capacity auction may not be able to offer OR or any flexibility services that MR project may develop.	*The Market Renewal streams, and the energy and ancillary service markets generally, are intended to work together to attract the types of resources required to meet system and participant needs in Ontario.*
	OWA	A key driver should be the province's commitment to its Climate Change Action Plan and, in particular, CO2 reductions in the context of the broader electrification of the economy. Is it realistic in this context to align with other jurisdictions and chose fossil-based technologies?	*The choice of the reference technology (which will be referred to as "Basis for Reference Price" going forward) typically reflects a type of generation that has been demonstrated to be feasible and economically viable within a region. The choice of the Basis for Reference Price in Ontario will also reflect the broader policy framework.* *The use of a Basis for Reference Price in determining Net CONE will not preclude the participation of diverse resources.*
	Renewables Consortium	Recommendation: Similar to the aforementioned Demand Forecasting Working Group and Supply Adequacy Working Group, the IESO should establish standing committees to oversee issues related to reference technology selection, setting the demand curve, etc. The IESO should establish processes to determine how stakeholder support and consensus will be reached.	*Issues related to stakeholder involvement in the process of setting, and re-setting, the parameters that feed into the Demand Curve have been referred to the MRWG for consideration. The results of these discussions will be shared with the ICA Stakeholder Engagement as details become available. Where a governance issue is identified that may have a broader impact on the governance of the Market generally, the IESO as a whole, or the broader legislative or regulatory framework, deliberation by the MRWG will be limited to the discrete impact on the Market Renewal Program.*
	OPG	The prime driver for selecting the reference technology for Ontario is government policy (as set out in the LTEP) and within this framework the next type of resource that will most likely be built within Ontario. Implicit in the consideration above is a "made in Ontario"	*The choice of the reference technology (which will be referred to as "Basis for Reference Price" going forward) typically reflects a type of generation that has been demonstrated to be feasible and economically viable within a region. The choice of the Basis for Reference Price in Ontario will also reflect the broader policy framework.*

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		solution and the type of supply mix that Ontario wants going forward. – This supply mix should not only consider carbon neutrality but also the type of resource required to complement existing Ontario resources to meet system needs. If the Ontario system needs flexible, peaking resources then this should be factored into the decision on reference technology. – Most US jurisdictions are using or moving from a CCGT to a CT but as Ontario has a higher percentage of renewable and nuclear resources, the technology referenced should reflect Ontario needs - not simply default to what other areas use. – another factor is how fast the generation needs to be inservice and the permitting / approval period within Ontario to meet the resource adequacy need. Ontario needs reliable (i.e. non-intermittent), flexible (e.g. fast ramp) capacity at the lowest cost. A simple-cycle gas plant (CT) is optimal to meet this need for the foreseeable future. OPG forecasts that new builds will have a low utilization factor (i.e. annual capacity factor < 5%) and thus the environmental impact of operation will be low. Nuclear and hydroelectric generation should be procured outside of the capacity auction and therefore should not be the reference technology. Wind and solar technologies are not appropriate as reference technologies as they are intermittent and do not provide the continuous reliability the system needs. Battery or energy storage are future possibilities but at this time further development may be required to achieve large	*The choice of the Basis for Reference Price will be considered further in the high level and detailed design phases, which will allow for additional stakeholder engagement. The IESO does not intend to eliminate any particular eligible resource types from possible selection at this time.*

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		scale.	
Net CONE (Gross CONE)	AMPCO	Our assumption is that costs are very comprehensive, including foreign exchange risk, etc.	*Gross CONE estimates are intended to be reflective of all costs required to build and maintain the hypothetical facility over its anticipated useful life, including factors related to capital and investment risk faced by project developers.*
	Powerful Solutions	The use of CONE is based on an outdated cost model that relies on traditional central power plant models using gas or coal and is obsolete. It would be better to have potential developers provide proposals of fixed and variable rates over time based on their cost to operate and maintain their technology.	*The concept of using a marginal reference technology to set the price points on the demand curve is consistent with the fundamental design objectives, and will result in a market that can support prices sufficient to attract capacity resources and meet reliability objectives.* *The choice of the Basis for Reference Price will be considered further in the high level and detailed design phases, which will allow for additional stakeholder engagement. Working with stakeholders and its consultant, the IESO will establish a range of criteria to identify the most appropriate reference technology within Ontario's unique context, including: (a) feasibility, (b) economic viability considering all known available revenue streams including from E&AS markets, (c) reproducibility, and (d) likely accuracy of the resulting Net CONE estimate.*
	APPrO	A good governance structure needs to be in place in order to establish gross CONE: -What is the stakeholdering process to determine CONE? -Who makes the decision? In NYISO, MPs have voting rights. In Ontario this is not the case. How will this be resolved? -Also, broader policies may impact CONE	*Issues related to stakeholder involvement in the process of setting, and re-setting, the parameters that feed into the Demand Curve have been referred to the MRWG for consideration. The results of these discussions will be shared with the ICA Stakeholder Engagement as details become available. Where a governance issue is identified that may have a broader impact on the governance of the Market generally, the IESO as a whole, or the broader legislative or regulatory framework,*

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			deliberation by the MRWG will be limited to the discrete impact on the Market Renewal Program.
	OPG	Ontario specific considerations, over and above those identified in the slides, should include regulatory and environmental approval costs along with the costs for First Nation consultation and participation. Firm gas delivery and management (GD&M) charges should also be included in the Net CONE calculation as they are included in some contracts. These costs can vary within Ontario depending on location. If included, these services need to be reflected in the requirements to participate in the auction. For facilities that incur load costs; such as, pump storage, energy storage, batteries, etc. perhaps fixed non-energy charges or load charges that do not vary with production should also be considered.	*CONE estimates are intended to be reflective of all costs required to build and maintain the Basis for Reference Price over its anticipated useful life, including Ontario-specific considerations. The specific components included will be dependent upon the Basis for Reference Price used, and will be determined at later phases of the design and implementation of the ICA, which will allow for additional stakeholder engagement.*
Net CONE (Energy and A/S offsets)	AMPCO	All costs/revenues should be considered as part of Energy and A/S offset, including start-up costs, GCGs, carbon credits, etc. How will the IESO calculate expected OR revenue? For example, not all units that are capable of offering OR actually do so.	*The precise calculations of the various components of the E&AS offset, including how potential OR net revenues are determined, will be discussed in the detailed design phase, which allow for additional stakeholder engagement.*
	Powerful Solutions	The use of Net CONE, E&AS Offset, single or zonal Net CONE, Capacity limit, Maximum Auction Clearing Price, and Demand Curve slope are all very complicated and impede transparency. These terms would be irrelevant if	*Implementability and Transparency are two guiding principles of the Market Renewal project. Transparency is facilitated through the robust stakeholder engagement process and educational resources intended to simplify complex content and ensure a common understanding of the*

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		the IESO used a competitive process whereby suppliers are paid as bid, rather than an auction clearing price.	*intent and application of the design.* *To the extent possible, the application of simple but effective approaches to determining the parameters of the demand curve will be important in adhering to these principles.*
	APPrO	This necessitates very little government interference in the wholesale electricity market (e.g., out of market deals with HQ) as broader policy objectives will impact the energy margin going forward. How will this be managed? How do you make investment decisions when policy decisions are made that can supress margins?	*Through this stakeholder engagement the IESO is seeking comments responsive to the ICA policy that are within the scope of the IESO's Market Renewal Program mandate. The scope of this mandate does not extend more broadly to legislative or regulatory reform or the legitimate exercise of government discretion to enact policy preferences that evolve over time.*
Net CONE (Stakeholder Involvement)	AMPCO	What will the involvement of the OEB be in this in Ontario?	*Issues relating to the role of the OEB have been referred to the MRWG for consideration. The results of these discussions will be shared with the ICA Stakeholder Engagement as details become available. Where a governance issue is identified that may have a broader impact on the governance of the Market generally, the IESO as a whole, or the broader legislative or regulatory framework, deliberation by the MRWG will be limited to the discrete impact on the Market Renewal Program.*
	EnerNOC	From a governance standpoint, all interested stakeholders should be able to vote on the results of the study and this vote should be recorded. Prior to this vote, the IESO should conduct and publish a study informing stakeholders of any implied changes to the clearing price of the most recently completed Incremental Capacity Auction.	*Issues related to stakeholder involvement in the process of setting, and re-setting, the parameters that feed into the Demand Curve have been referred to the MRWG for consideration. The results of these discussions will be shared with the ICA Stakeholder Engagement as details become available. Where a governance issue is identified that may have a broader impact on the governance of the Market generally, the IESO as a whole, or the broader legislative or regulatory framework, deliberation by the MRWG will be limited to the discrete impact on the Market Renewal Program.*

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	APPrO	Substantial debate and revisitation, if necessary, will be critically important. But who decides? What rights do IPPs have to question decisions? Again this comes back to governance.	*Issues related to stakeholder involvement in the process of setting, and re-setting, the parameters that feed into the Demand Curve have been referred to the MRWG for consideration. The results of these discussions will be shared with the ICA Stakeholder Engagement as details become available. Where a governance issue is identified that may have a broader impact on the governance of the Market generally, the IESO as a whole, or the broader legislative or regulatory framework, deliberation by the MRWG will be limited to the discrete impact on the Market Renewal Program.*
	Renewables Consortium	Recommendation: An ongoing working group should be established in order to set the inputs which will feed into the Net CONE study. This could be part of the aforementioned Supply Adequacy Working Group. • The aforementioned new governance framework is highly applicable to this aspect of the ICA as well.	*Please see previous response.*
	OPG	As the Net CONE is a critical component in determining the demand curve and capacity prices it may be beneficial for the Net CONE to be approved through an independent process external to the IESO. This may alleviate some governance concerns expressed by stakeholders and increase support for the calculation as it provides objectivity. − In the U.S., jurisdictions seek approval from FERC to achieve this measure of neutrality. An analogous process could be designed for Ontario (obviously not through FERC) with the objective of achieving a balanced perspective and providing a mechanism for participants	*Issues related to stakeholder involvement in the process of setting, and re-setting, the parameters that feed into the Demand Curve and the role of the OEB have been referred to the MRWG for consideration. The results of these discussions will be shared with the ICA Stakeholder Engagement as details become available. Where a governance issue is identified that may have a broader impact on the governance of the Market generally, the IESO as a whole, or the broader legislative or regulatory framework, deliberation by the MRWG will be limited to the discrete impact on the Market Renewal Program.*

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		to challenge / appeal the outcome of the study if they do not agree with the result.	
Frequency of Revision	OWA	Rather than arbitrarily choosing a review period, criteria should be established which trigger a review (e.g. significant change in demand, significant change in costs, new technology entry)	*A trigger-based approach will continue to be considered for future auctions.*
Net CONE (Zonal Net CONE)	AMPCO	If Net CONE will be zonal, presumably the entire demand curve would also be zonal?	*The use of zonal demand curves will be considered with stakeholders in the "Locational Considerations" design element.*
	EnerNOC	If a locational capacity zone is required, then a 'new capacity zone' review process should be developed and implemented similar to NYISO that outlines the strong reason for its creation. NYISO has a 3 year 'new capacity zone' review process that is conducted on a 3 year basis to determine whether they should create a new zone with its own demand curve.	*How to establish and maintain capacity zones will be considered with stakeholders in the "Locational Considerations" design element.*
Min/Max Capacity Limits	AMPCO	These seem very arbitrary. There does not appear to be any rigour in establishing these limits. On slide 79, reference to low/high demand outlooks is not in relation to LTEP scenarios, is it? If so, it could lead to over procurement if scenario failed to be realized.	*Basis and rationale for establishing Min/Max Capacity Limits will be discussed further as part of the modelling effort that Brattle will conduct to help establish the shape of the Demand Curve. The reference on slide 79 was not intended to highlight any specific high or low demand scenarios.*
	Powerful Solutions	The IESO should determine what it needs and procure according to lowest cost bid to highest. Should the highest bid span the target requirement, then the IESO should evaluate whether to accept as is, reject, or revise the offer in collaboration with the affected bidder.	*In the Fundamentals phase of the ICA development, it was determined that a uniform price would be paid in the ICA. Please refer to the materials for Fundamentals Meeting #2 on the ICA webpage for further details.*

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	EnerNOC	EnerNOC requests that the IESO provide information on the constraints that would exist on these options.	*The constraints for any of the options related to the Min/Max capacity limits will be addressed in the detailed design stage, which will allow for additional stakeholder engagement.*
Max Auction Clearing Price	AMPCO	Again, this seems very arbitrary.	*Please see response above to AMPCO's comment on Min/Max Capacity Limits.*
	Storage Power Solutions	I am not sure that I understand this well enough to comment. If the IESO builds an auction that drives competition then why worry about the MAX price and if there is a miscalculation or change in the market that limits the bids how can the IESO fulfill its needs? (there is something that I do not understand).	*A maximum auction clearing price is one mechanism that capacity auctions use to limit participants' ability to exercise market power. "Market Power Mitigation" is a design element that will be discussed further at a future session.*
Price Floor	Powerful Solutions	If the bidder chooses to offer Capacity at zero price, and be paid at this rate, why would a competitive market deny this approach?	*The implementation of a price floor that the Maximum Auction Clearing Price cannot fall below does not preclude the auction from clearing at a lower price. The application of a price floor for the MACP does not impact a participant's ability to offer capacity at a low or zero price, or for the auction to clear at a low or zero price.*
	EnerNOC	EnerNOC recommends a minimum offer price resources "MOPR" for market participants that have both market power and an incentive to depress prices.	*This will be discussed further at a future stakeholder session relating to the "Market Power Mitigation" design element.*
	APPrO	Can the IESO provide the pros/cons associated with incorporating a floor price versus no floor price. What are the implications on reliability?	*Brattle is currently conducting analysis that will examine the merits of the inclusion of a floor price on MCAP. This will be considered further in the high level and detailed design phases, which will allow for additional stakeholder engagement.*
Slope of Demand Curve	AMPCO	Can the IESO provide any additional information as to	*The IESO would favour a demand curve slope that will send effective*

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		what specific outcomes it favours in regards to slope of the demand curve?	*price signals to the market to alleviate shortage or over-supply conditions quickly and which will minimize the cost of capacity while ensuring reliability.*
	HQEM	Before identifying their preferred option, participants will need more information about the auction design, as example, the forward period and the commitment period.	*In recognition of the linkages between the design elements, although the IESO intends to propose preliminary decisions where possible and appropriate throughout, decisions with respect to each of the design elements will not be finalized until the later design phases.*