

Incremental Capacity Auction – Phase 2 - Options

Meeting Notes - April 19, 2018

Date held: Apr 19, 2018	Time held: 9 a.m. – 3 p.m.	Location held: Crown Plaza
Attendees	Company Name	Attendance Status – (A)ttended; (WebEX) Attended via WebEX; (T)eleconference;
Luukkonen, Paul	Amp	WebEX
Anderson, Colin	AMPCO	A
Wright, Rhonda	AMPCO	A
Butters, David	APPrO	A
Xu, Jennifer	Bruce Power	A
Robb, Colin	Capital Power	WebEX
Nikkel, Jonathan	Centre Lane Trading	WebEX
Koff, Chaim	City of Toronto	A
MacDougall, Jim	Compass Consulting	WebEX
Beattie, Jeff	Consumers Energy	WebEX
Withrow, David	Customized Energy Solutions	WebEX
Houle, Jonathan	ecobee Inc.	WebEX
Ogbue, Nkechi	ecobee Inc.	WebEX
Chibani, Yanis	EnerNOC	WebEX
Griffiths, Sarah	EnerNOC	WebEX
Bajc, Frank R	GC Energy	WebEX
Coulbeck, Rob	Goreway	A
Wharton, Karen	Great Circle Solar Mgmt.	A
Belanger, Frederic	HQEM	WebEX
Freeman, David	Ministry of Energy	WebEX
Sparkes, Brian	Nalcor Energy Marketing	WebEX
Khan, Shahid	Northland Power Inc.	WebEX
Samant, Sushil	Northland Power Inc.	A
Popova, Julia	NRG	WebEX
Fortin, Michel	Ontario Citizens' Coalition for Clean Affordable Energy	A
Brown, David	Ontario Energy Board	A
Wizniak, Lynn	Ontario Power Generation	A
Norris, Paul	Ontario Waterpower Association	WebEX
Omara, Hisham	Opus One Solutions	A
Cumming, Alison	Power Advisory LLC	A
Lusney, Travis	Power Advisory LLC	A

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Simmons, Sarah	Power Advisory LLC	A
Jagt, Mandy	Power Consumer	A
McKenzie, Kim	Power Workers' Union	WebEX
White, Adam	Powerconsumer Inc.	WebEX
Inman, Peter	Powerful Solutions	A
Goddard, Rick	Rodan Energy	A
Ingram, Rachel	Rodan Energy	WebEX
Hiltz, Bonnie	Sussex Strategy Group	A
Chen, Katherine	Temporal Power	WebEX
Nguyen, Thanh	TransAlta	A
Kuntz, Margaret	TransCanada Energy	A
Sears, Heather	Workbench	WebEX
Long, Jesse	WPD Canada	A
Campbell, Alexandra	IESO	A
Agavriiloai, Ioan	IESO	A
Bedford, Julie	IESO	A
Chagla, Farid	IESO	A
El-Samahy, Ismael	IESO	A
Grbavac, Jason	IESO	A
Hill, Warren	IESO	A
Kula, Leonard	IESO	A
Lee, Jim	IESO	A
Movchovitch, Emanuel	IESO	A
Nusbaum, Stephen	IESO	A
Zubyck, Laura	IESO	A
Prepared by Laura Zubyck. Please report any corrections, additions or deletions by e-mail to engagement@ieso.ca .		

All meeting material is available on the IESO website at: <http://www.ieso.ca/en/sector-participants/market-renewal/market-renewal-incremental-capacity-auction>

Introduction – Jason Grbavac, IESO

The IESO welcomed participants and described the format of the meeting.

Review of Agenda and Meeting Objectives – Stephen Nusbaum, IESO

The IESO reviewed the meeting agenda and outlined the day's objectives.

Review of January 24 Options Meeting Feedback – Stephen Nusbaum, IESO

The IESO led stakeholders through the feedback received from the January 24th meeting covering Locational Considerations (Part 1), Market Power Mitigation and Cost Recovery

Stakeholder Feedback – Market Power Mitigation

A participant asked for confirmation that, in regards to Feature 1, physical withholding, the concept of a must-offer does not apply to dispatchable loads.

The IESO responded in the affirmative, but also acknowledged that there may be instances the IESO is not yet aware of at this stage in the design process, such as participants under contract or participating in another program, which could affect this response and would need to be discussed further.

A participant asked if external resources would be subject to the market power mitigation framework for the ICA.

The IESO commented that it would make sense that external resources would be subject to the market power mitigation framework but acknowledged that this must be further considered.

Decisions Phase Work Plan – Stephen Nusbaum, IESO

The IESO provided stakeholders with a proposed approach for stakeholdering in the lead up to publishing the High Level Design (HLD). The approach includes focusing stakeholder engagement meetings on design decisions of greatest importance to stakeholders and communicating other, less impactful, design decisions through the HLD document.

A participant asked for confirmation that the level of feedback that the IESO is receiving on some of the design aspects is not the sole driver in determining importance. The participant expressed concern that there are some technical pieces that are important and therefore stakeholders should have the opportunity for more comprehensive engagement.

The IESO thanked the participant for the input and said that future stakeholder engagement sessions or opportunities to comment will be considered. The IESO also explained that the challenge is to find the right balance to ensure sufficient progress in a limited amount of time while also providing stakeholders with the opportunity to engage in discussion prior to HLD publication.

Schedule Checkpoint – Stephen Nusbaum, IESO

The IESO provided stakeholders with an update on the anticipated timing of the first auction as well as guidance around the expected auction structure.

A participant commented that the IESO previously suggested that the initial auction would be held in the year 2020 and asked if this date has now changed due to the HLD finalization being pushed to a later date.

The IESO confirmed that there was initial discussion about the possibility of a need for capacity occurring as early as 2021, which would require an auction to be held in 2020. The current Long-Term Energy Plan (LTEP) outlook now shows the need for incremental capacity emerging around 2022/2023. Additionally, because the HLD is now expected to be released in 2019, and the amount of time it takes to put new market rules and related processes in place, it would be unlikely that the IESO would be in a position to run an auction in 2020.

The participant further commented that the LTEP outlook on slide 40 indicates that there will be a 5000 MW need in 2023. The participant went on to say that unless the IESO is proposing that those MWs are going to come from imports and demand response (DR), the IESO needs to give proponents time to meet that need. If the IESO gives proponents 3-4 years, the auction must occur in the 2020 timeframe.

The IESO responded that it expects the majority of that 5000 MW will come from existing capacity resources already in the province; resources that are coming off of contract or are already secured through DR. There will be a small incremental amount which the IESO envisions coming from resources with lower lead times and costs such as imports, DR or uprates.

A participant asked if the auction will be available to existing resources that are coming off of contract in 2021 or, if it is not, would they be participating in another auction mechanism at that time such as DR.

The IESO confirmed that in the first few years much of the capacity coming off of contract will be DR. The IESO then added that it was originally communicated that a need for capacity could arise by 2021. However, with information gathered from the LTEP and work being done internally for the demand and supply outlook later this year, the need will probably not arise that early. The IESO said that a lot of work is anticipated to be done with the IESO's planning group and stakeholders in the fall of this year which will involve looking into questions currently being raised and more closely determining the timing of capacity need to meet a resource adequacy gap.

A participant asked for the IESO to confirm that there will be a separate engagement session this fall to gather stakeholder feedback regarding planning and assumptions.

The IESO responded in the affirmative noting that this approach will help to address stakeholder requests for more transparency in the planning process.

The same participant added that they believe this would be valuable because they question some of the IESO assumptions that some of the generators coming offline in the near-term will actually be around for 3 or 4 years without that type of payment.

The IESO thanked the participant for the input and added that this is the type of feedback they are hoping to receive at the stakeholder engagement session in the fall.

A participant asked how much time the IESO anticipates a generator will need up front to participate in an auction, considering factors such as credit requirements, capacity checks etc. The participant continued by suggesting that the registration process should be followed by a period of at least a few months to complete this work before participating in the auction.

The IESO agreed that they will need to publish certain materials, such as the target capacity and the net CONE, and review a proponent's submission of certain materials in advance of the auction date. In other jurisdictions, these things can take up to six months or one year. The IESO reiterated that the timing of all of this is something they are aware of and are considering.

The participant continued by saying that auction participants may want to know if they do not qualify, so they can explore other options.

The IESO agreed and acknowledged that this is something they want to address.

A participant commented that some of the ICA design could be characterized as nice-to-have and some essential. The participant continued by asking if the IESO has identified, or has considered identifying, the critical elements that must be in place to form a basic structure and then contemplate what the evolution of the market will be after that.

The IESO confirmed that they have thought about this. The IESO went on to explain that there are processes on the back end, such as settlements, which may not need to be fully developed right away and can be dealt with later on. Due to the interdependence of design elements and the need to have processes in place should unlikely situations arise, there aren't as many pieces that can be staged or staggered as originally thought. For example, if a new build combined cycle gas plant comes forward in the first auction, though that seems unlikely, there must be a process in place to deal with this. The IESO added that there may be opportunities to use simplified approaches around aspects such as qualified capacity, deliverability or zonal clearing in the earlier auctions and then move to a more robust approach in subsequent auctions.

Today's Design Elements – Ismael El-Samahy, IESO

The IESO provided stakeholders with a recap of Locational Considerations (Part 1), which were discussed at the January 24, 2018 meeting. The IESO then led stakeholders through a discussion of Locational Considerations (Part 2) which was made up of five features: Capacity Zones, Zonal Maximum Capacity, Zonal Minimum Capacity, Deliverability, and Locational Clearing.

Feature 1(a): Capacity Zones – Transmission Limitations

A participant commented that the most important thing for a market participant when formulating an offer into the capacity market is to be able to analyze what the estimated revenue is, as a generator, or cost, as a load, in the energy market. The participant then asked if the IESO has had any discussion around whether it is easier for participants to do that analysis if the zones match, or if the zones are different.

The IESO acknowledged that they are having discussions around the interrelation between capacity and energy zones and will share their findings. The IESO added that the energy stream is going with nodal pricing for generators so this question of zones will be more relevant on the load side.

A participant commented that the creation or elimination of zones in other ISOs has been very controversial and there are significant economic impacts to participants. The participant continued by pointing out that, in terms of governance, the IESO must consider how the zones are collectively determined and where the decision lies if the zones need to be changed. The participant concluded by stating that before going into the details a structure must be put in place that allows these things to be addressed.

The IESO agreed and then highlighted that the next sub-feature 1b: Capacity Zones – Reasonably Stable and Predictable is focused on this concern. The IESO emphasized that the purpose of this sub-feature is to develop a process for Capacity Zone creation and revision that results in stable and predictable zone formation from year-to-year.

Feature 1(b): Capacity Zones – Reasonably Stable and Predictable

A participant commented that it is important that the zone not be too small for aggregated load because a certain amount of diversity is needed amongst contributors to get a reasonable expectation of delivery and a small zone would impede that.

The IESO thanked the participant for the input.

A participant asked how net CONE would be determined if the economic value of system need is different in each capacity zone.

The IESO confirmed that this is a question that still needs to be answered; whether a zonal demand curve is required, which depends on whether there is a need to define a specific net CONE for each zone or whether a system wide net CONE is sufficient. The IESO added that this will be part of the demand curve analysis.

A participant commented that decisions on zones in the capacity auction will impact operational processes, like outage planning, and that these implications will need to be carefully considered in the ICA design.

The IESO thanked the participant for the input and comments.

Feature 2: Zonal Maximum Capacity

Referring to the example shown on slide 69, a participant asked whether the term ‘incremental capacity’ refers to the Incremental Capacity Auction or if the term is referring to procuring incremental capacity through any means.

The IESO clarified that, in this example, they are referring to any kind of procurement, not specifically the ICA.

The participant continued by asking for the IESO to confirm that, theoretically in the example shown on slide 69, the zone could have 1000 MW of load and only 600 MW of generation, in which case there is an opportunity to procure up to an additional 600 MW.

The IESO responded by providing another example: assume that the 1000 MW of generation already exists and there will be an auction run with a Target Capacity of 3000 MW for the entire system. If this generation is located without consideration of any transmission limitations it could be put in a zone that cannot export all of the energy. The IESO added that if more generation is procured than the transmission system can safely handle, it is trapped in a zone. The maximum incremental capacity is the amount of excess generation that is needed to get out of the zone to serve the rest of the system.

A participant commented that, because of the capacity factor of certain resources, the IESO will need to oversubscribe the capacity compared to the load. The participant added that, from a provincial basis, there may be a certain capacity contracted but the peak capacity is actually far below that. The participant then asked how the IESO is going to decide what degree of oversubscription they’re going to have and where it will be located.

The IESO responded that the qualified capacity design element takes care of the difference between the installed capacity and the un-forced capacity (UCAP). Supply resources typically cannot be relied upon to provide 100% of their capacity at all times so their capacity is qualified for the auction to reflect what the resource can be expected to provide on average when needed by the system. The IESO added that the question at hand is whether that qualified value is deliverable outside of a constrained zone to the rest of the system.

A participant commented that they would have assumed the approach to Zonal Maximum Capacity would be driven by reliability standards, resulting in a uniform approach across jurisdictions.

The IESO responded that Zonal Maximum Capacity refers to the maximum amount of capacity that can be exported from a zone and that this is not directly linked to measuring an ability to meet system needs. The IESO indicated that the Zonal Minimum Capacity is more impactful when assessing system adequacy.

The participant continued by saying the IESO must be clear on how it is calculating global and zonal needs because market participants will be making meaningful decisions based on this information.

The IESO agreed and added that the importance of having zones is to have accurate signals that enable informed investment decisions.

Feature 3: Zonal Minimum Capacity

A participant asked what would happen if less than the minimum capacity is offered in a given zone.

The IESO responded that depending on the magnitude of the supply shortage, rebalancing auctions are likely to be the primary tool for addressing this situation. If capacity is still required after the last rebalancing auction then out-of-market mechanisms would have to be explored.

Locational Considerations: Interaction between ICA and Regional Planning

A participant suggested that having a disconnect between regional planning and the ICA may lead to an over procurement of certain assets because the timeframe for the ICA differs from those for building regional transmission. The regional planning process often treats internal generation as flat because there were no new purchases, so it does not look into the future. The participant suggested that the IESO consider how much minimum capacity is being procured and appropriately apply it to the different planning zones to align wires based solutions and market based resource solutions.

The IESO responded that the established capacity zones need to be of sufficient size to incent market based mechanisms and the 21 regional planning zones are not all of sufficient size to do this. The intent is to capture the minimum capacity from a system adequacy and transmission limitation perspective and after this review whether other reliability requirements have been met including regional reliability. If not, then additional market based tools or out-of-market mechanisms must be explored.

The participant responded by saying that they agree with the IESO in the case of having a single zone with multiple regional plans but in Ontario there are zones with a single regional plan. If a participant participates in the ICA in a zone with a transmission buildout, the price signal could be affected when that transmission comes in. Additionally, if it takes an extended period of time, for example if community engagement is involved, there will be less confidence in terms of moving forward with that commitment.

The IESO thanked the participant for the input and acknowledged that this relationship has been flagged internally. Whether it is the regional planning or the bulk transmission planning process, there needs to be an evolution in the IESO's planning processes to ensure they are aligned with our future market design.

A participant suggested it might be better to leverage the regional planning process and use the information from it as a consideration when determining incremental capacity needs in the ICA.

The IESO responded that it is possible that some regional planning decisions will have been made and those decisions will be incorporated into the auction process.

A participant pointed out that there could be a case where a resource is contracted through the regional planning process and also participates in the ICA. The participant then asked if the IESO is looking at how to coordinate those funding pools.

The IESO responded that the ICA is focused on system-wide needs. While the notion of zones is important, it can't stand alone from the bulk planning process. There are initiatives in the LTEP related to regional planning and bulk system planning and that all has to be integrated together. The IESO concluded by saying they while it doesn't have a complete answer at this point in time these issues will be addressed.

Feature 4: Deliverability

A participant commented that there must be an assumption that the transmission line is only binding a certain amount of time under certain configurations and asked if this is where the deliverability test comes in.

The IESO responded in the affirmative.

A participant pointed out that, for the most part, the deliverability test should be the same for a generator all of the time because they have the same outages every year. However, if there is a major upgrade going on a generator could receive a deliverability assessment in that year that is less than they would normally expect.

The IESO responded that the focus of the deliverability assessment is the period of time during the commitment period.

The participant pointed out that things become difficult when the forward period is three years because if it is not a large planned outage a generator may not be aware.

The IESO thanked the participant for the input and comments and acknowledged that this issue is something that is being discussed.

A participant asked if deliverability factors into the UCAP calculation.

The IESO responded that the qualified capacity process is separate from the deliverability assessment. The deliverability assessment ensures the MW of qualified capacity is deliverable. However, the results of the deliverability assessment will likely affect the amount of qualified capacity for a resource if constraints exist.

A participant commented that determining the timing of the deliverability assessment is simpler when talking about a single resource whose type is known at the time of the auction. However, because there is a multi-year forward period and there may be multiple resources that are likely to change it may not be as straight forward.

The IESO thanked the participant for the input and comments and agreed that a process to manage a variety of scenarios will need to be established and will be presented to stakeholders.

A participant asked if other jurisdictions allow the use of protection schemes to enable deliverability of capacity.

The IESO responded in the affirmative. The IESO added that there is a distinction between type 1 and 3 Special Protection Schemes (SPS); all reliability coordinators would like to avoid type 1 SPS as enduring solutions but the rest is on the table.

A participant commented that the deliverability assessment sounds like a connection assessment which can be very expensive with no guarantee of availability. If the ICA is for the purpose of resource adequacy, shouldn't the IESO assume this burden and determine deliverability in advance based on resource adequacy?

The IESO responded that the purpose of the deliverability assessment is to ensure that whatever is procured is deliverable and the IESO will run this process. The Connection Assessment and Approval process (CAA) is a separate assessment and does not consider deliverability, however, the IESO is reviewing the current CAA process to determine whether the deliverability assessment should be an independent process or part of the CAA. The IESO concluded by stating that in the end a middle ground must be found where both parties, the IESO and the participant, share the burden.

A participant asked if deliverability is an issue in today's market.

The IESO confirmed that deliverability has been an issue and will continue to be an issue as long as there are transmission limitations, both local and global. The IESO added that there are parts of the system that can connect new resources and there are parts that have experienced challenges accommodating transfers of power from resources to loads.

The participant asked if this data is publicly available.

The IESO responded that this type of information has been made available in previous procurements. For example in the Feed-in Tariff (FIT) Program and Large Renewable Procurement (LRP) the Transmission Availability Test/Distribution Availability Test (TAT/DAT) tables were made available. However, the information in the ICA is more complicated to display. As next steps, the IESO confirmed that they will be examining how to create a simple method that could provide an indicative estimate of available transmission capability prior to resource qualification.

A participant asked if the IESO thought a screening process would filter out those participants who might make unreasonable proposals. The participant added that if a queue is used you might have a good project that is below a not as good project but won't get selected because they are lower in line.

The IESO responded that there are currently screening tools in place, the CAA process and associated System Impact Assessment (SIA), which assess whether the interconnection of a prospective resource will degrade system reliability, but they don't consider direct connection or transmission upgrades required for deliverability. The IESO continued by saying that it envisions that a deliverability assessment would be performed pre-auction to identify any deliverability constraints. The IESO also presented the concept of queueing as performed in other jurisdictions (slide 86) and highlighted the economic inefficiencies associated with this concept. The IESO is proposing that resources would be selected based on offer price subject to any pre-determined limiting constraints found in the pre-auction deliverability assessment. This approach will achieve the object of the most economic resources clearing the auction.

A participant pointed out that embedded generation resources will not necessarily know what the transmission system looks like. They added that the transmission connection location is something that the IESO and Hydro One should determine to reduce uncertainty for participants.

The IESO agreed and added that this is being addressed through the Pre-Auction Deliverability Indication, a non-binding analysis of available transmission capacity made available to participants in the pre-auction timeframe to provide an indication as to parts of the transmission system where additional capacity is likely to be deliverable.

A participant commented that transmission upgrades are not always exact in the sense that it may be economically beneficial to overbuild a transmission upgrade. The participant then asked if the IESO has considered how the proponent might pay for that and how that payment is affected if an additional proponent comes forward and uses the additional capacity.

The IESO acknowledged that a process must be developed that addresses facilitating network transmission upgrades. The IESO then added that the first few auctions are not expected to require new resources to be built so this process could be developed as part of future ICA enhancements.

A participant commented that the deliverability framework described on slide 91 is similar to the constraint in the transmission rights auction which makes sure you get the most economic transactions across two paths. The participant went on to ask if any other jurisdictions do anything similar to this or whether this framework is outside of the typical auction engine.

The IESO stated that other jurisdictions are doing this and mentioned that Alberta is currently considering the same structure.

A participant asked how this test would work in the case of an aggregator. For example, pre-auction an aggregator would have to give a listing of the make-up of the aggregate group for a forward period of 3 years which is not realistic.

The IESO responded that what is of importance pre-auction are the constraints that need to be considered in order to capture any known potential deliverability issues.

The participant responded by saying they can't provide the geographical footprint of the load in the zone being bid on because the particular contributors may change or not exist eventually.

The IESO thanked the participant for the input and comment and said this is something that must be revisited. Aggregation was discussed in the September 28, 2017 meeting regarding sub-feature 3(c) of Resource Eligibility but the modelling of aggregated resources needs to be looked at further.

The participant asked for a commitment from the IESO regarding when this issue will be addressed.

The IESO responded that the modelling of aggregators will be addressed as part of the High Level Design (HLD).

A participant commented that most of the customers will be located near load centres so there shouldn't be a concern about generation not being near load. The participant continued by saying that if a load resource is dispatched down it's always going to help the deliverability test so there may not be an issue.

The IESO agreed that for the purpose of deliverability assessments aggregation should not be an issue but added that modelling of aggregators is a separate issue.

Feature 4 – Deliverability - Pre-auction Deliverability Indications

A participant asked if the pre-auction deliverability indication will be focused on congestion at peak.

The IESO responded in the affirmative and added that they chose to compare the pre-auction deliverability indication to the TAT and DAT in the presentation because this is what is familiar to many stakeholders.

Feature 5: Locational Clearing

A participant asked if the results of a zonal clearing would affect the province-wide price.

The IESO responded that, notionally, there would be a zonal clearing to meet the needs of the zone but those resources would not set the uniform clearing price for the rest of the province.

Conclusion and Next Steps – Stephen Nusbaum, IESO

The IESO thanked all participants and reiterated that all design decisions shared today are preliminary and that the IESO welcomes feedback from all stakeholders before moving to the final decision phase. The next ICA meeting is scheduled for June 14, 2018.

Meeting adjourned at 3:00 p.m.