

# IESO York Region Non-Wires Alternatives Demonstration Project

## Stakeholder Feedback & IESO Response from July 23<sup>rd</sup> Webinar

Following the July 23<sup>rd</sup> public webinar on the IESO York Region Non-Wires Alternatives Demonstration Project, the IESO received feedback from participants on the Draft Demonstration Project Rules.

The IESO received feedback from:

- [Canadian Renewable Energy Association \(CanREA\)](#)
- [CEM Engineering](#)
- [City of Vaughan](#)
- [Electricity Distributors Association](#)
- [Enel X](#)
- [EnergyHub](#)
- [Energy Storage Canada](#)
- [Markham District Energy](#)
- [Peak Power](#)

This feedback has been posted on the IESO York Region NWA Demonstration Project [webpage](#).

### Note on Feedback Summary

The IESO appreciates the feedback received from stakeholders. The feedback has been noted and will be considered as the engagement moves forward. The IESO has provided a summary table below (Table 1), which outlines specific feedback or questions

for which an IESO response was required at this time. Table 2 below captures questions asked by a stakeholder through a follow up meeting with the IESO, and the IESO's written response to those questions for the benefit of all stakeholders.

Please note that these Stakeholder Feedback and Responses ("Feedback & Responses") have been developed for the purpose of assisting interested parties in understanding the Demonstration Project Rules and Contracts (the "Rules & Contracts"), which provide an overview of the rules and participant contract for the IESO York Region Non-Wires Alternatives Demonstration Project and is subject to on-going revision.

The posting of these Feedback & Responses are made exclusively for the convenience of stakeholders, prospective participants, and other interested parties, and can be found under the September 14, 2020 entry on the IESO York Region NWA Demonstration Project webpage.

The information contained in this Feedback & Response document and related documents shall not be relied upon by any stakeholder, prospective participant, or other interested party as a basis for any commitment, expectation, interpretation and/or design decision.

Capitalized terms used in this Feedback & Responses document not otherwise defined herein have the meanings ascribed to them in the Rules & Contracts, as applicable.

Reading document is NOT a substitute for reading and understanding the Rules & Contracts. Interested parties are advised to read and understand all of the Rules, and to seek their own advice from advisors with relevant expertise. This document are not binding on the IESO or Alectra and in no way vary or impact the interpretation of the Rules & Contracts.

In the event there is any conflict or inconsistency between this document and the Rules & Contracts, if any, the terms in the Rules & Contracts shall govern.

## Stakeholder comments and IESO responses

**Table 1**

Topic	Feedback	IESO Response
<p><i>1. Do the proposed dates present any challenges?</i></p>	<p>Several stakeholders indicated the dates are manageable. A number of stakeholders, however, suggested the timelines may preclude new resources from participating.</p> <p><u>Dates are manageable</u></p> <p>Four stakeholders provided support for the proposed dates, with three of them being specific with respect to the type of participation, indicating:</p> <ul style="list-style-type: none"> <li>• The timelines are reasonable for an established Demand Response C&amp;I customers.</li> <li>• The proposed dates are reasonable for establishing a residential thermostat aggregation for the upcoming commitment period.</li> <li>• Dates are manageable.</li> <li>• Only existing resources – or those already far in development – can feasibly participate in the auction</li> </ul> <p><u>Timeline challenge for new resources</u></p> <p>Feedback from five stakeholders indicated a potential challenge with the proposed timelines for new</p>	<p><u>Dates are manageable</u></p> <p>Thank you for the confirmation that the timelines are workable for DER aggregations, existing DER facilities, and DERs that are already under development.</p> <p><u>Timeline challenge for new resources</u></p> <p>Thank you for helping us understand the timeline challenges for new DERs.</p>

Topic	Feedback	IESO Response
	<p>resources, particularly with respect to interconnection assessment timelines.</p> <ul style="list-style-type: none"> <li>• The proposed timelines may not enable new resources that require capital expenditures due to the current utility CIA timelines and process</li> <li>• The rules and timelines for the project will restrict participation of new resources and limit the potential learnings.</li> <li>• The program timelines will most likely preclude any installation of new assets due to the following: <ul style="list-style-type: none"> <li>○ The asset must be connected to the distribution system as part of rules, so now we have a connection challenge. (may be able to get around this by islanding loads that are serviced by revenue meters)</li> <li>○ The asset must be fully functional by first quarter 2021</li> <li>○ The commitment period is very short 6 months (minimal ROI)</li> </ul> </li> <li>• For commercial scale projects, CanREA believes that the current timelines maybe be challenging for new development and may only be sufficient for the conversion of existing assets in the demonstration area for the purpose of participating in the demonstration project.</li> </ul>	<p>As the Demonstration is being implemented under NRCan’s Smart Grid Program, it must abide by the program’s timelines, under which the project must be completed in 2022. It is anticipated that the demonstration will involve material participation from existing resources or resources already under development.</p> <p>For new DER installations with longer lead times that do not meet the timelines of the first Local Capacity Auction, there may be an opportunity to participate in the second Local Capacity Auction taking place in 2021.</p> <p>With respect to the Connection Impact Assessment process, please be reminded that the Distribution System Code outlines certain service standards, including for instance section 6.2.12.</p>

Topic		
	<ul style="list-style-type: none"> <li>• The timeline for this project provides little opportunity for a participant to develop a new resource that is not already committed. It will be difficult to site, plan, receive CIA approval and build a new facility within the five-month forward period unless the facility has already started the process. ESC believes the proposed dates present a challenge to properly evaluate the potential of available resources through this Demonstration Project.</li> <li>• We are concerned that as currently drafted the demonstration project places a significant amount of risk on participants which may deter participation and reduce competition. Risk is elevated in this demonstration due to tight timelines, contract termination risk and short commitment periods.</li> <li>• Although Peak Power appreciates time and resource constraints that make long lead times and long contract lengths for this Project challenging, larger projects (over 500 kW) projects can take several to develop. With auctions occurring in November 2020 with a commitment period starting May 2021, Peak Power anticipates that only existing resources – or those already far in development – can feasibly participate in the auction. Some new</li> </ul>	

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	<p>smaller (&lt;500kW) projects may be able to participate. Furthermore, with the pilot length only lasting two years, it is unlikely that new projects would be able to secure funding for such a project; cost recovery for such a project is typically at least five years.</p> <ul style="list-style-type: none"> <li>To fit within the timelines established by the IESO and Alectra, recognition should be made to enable the participation of resources that are required to go through the connection process. Since this is a Demonstration Project, it would be unfortunate if new resources were penalized from participating and demonstrating their value as a NWA to the IESO and Alectra, as well as the stakeholder and regulatory community that will be using the results of the project for further investment in programs and markets.</li> </ul>	
<b>General feedback on the Draft Demonstration Project Rules</b>		
<p>2. <i>Eligible Resource Types</i></p>	<p>One stakeholder submitted feedback on the potential for solar to participate:</p> <ul style="list-style-type: none"> <li>CanREA notes that this demonstration project is limiting eligibility to demand response, energy storage and gas-fired resources, which is a change from the high-level proposal presented in December 2019. CanREA appreciates that the IESO has indicated the potential for flexibility in</li> </ul>	<p>The IESO sought feedback as part of the July 23, 2020 webinar from any prospective Demonstration participant with a potentially eligible solar DER facility. However, none came forward. At this time, the demonstration will not be expanded to include this resource type. If there are such projects that come forward ahead</p>

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	<p>considering solar projects should any proponent express interest in pursuing solar as part of this demonstration.</p> <ul style="list-style-type: none"> <li>• CanREA encourages the IESO to consider a role for solar in NWA projects and future demonstration projects. As illustrated in CanSIA’s recently completed discussion paper (submitted to the IESO as part of the Regional Planning Review Process), many NWA projects across North America leverage solar in combination with other technologies (e.g., hybrid systems) to reliably meet local system and resource needs.</li> </ul>	<p>of the second Local Capacity Auction, the inclusion will be considered at that time.</p> <p>The IESO acknowledges that there is a potential role for solar resources in NWAs initiatives. Stakeholders are encouraged to review the IESO’s <a href="#">Regional Planning Review Process</a>, which includes the topic of potential barriers to implementing non-wires solutions in regional planning within its scope.</p>
<p>3. <i>General eligibility</i></p>	<p>Stakeholder submissions included several general eligibility questions:</p> <ul style="list-style-type: none"> <li>• Please confirm the ability of behind-the-meter (BTM) storage resources to participate as Demand Response (DR)?</li> <li>• What is the minimum size of contributors DERs (i.e., DERs that form part of an aggregated resource)?</li> <li>• What is the total project cap (e.g. MW)?</li> </ul>	<ul style="list-style-type: none"> <li>• BTM storage participating as DR: Yes, BTM storage resources can participate as DR.</li> <li>• Minimum contributor size: There is no minimum Contributor DER size in the Demonstration. Please also bear in mind that the Capacity Offer in the Demonstration will be in increments of 10kW. Therefore, contributors must either be of a certain size or be aggregated in a certain number for their contributions to be captured in the Capacity Offer.</li> <li>• Participation maximum: With respect to the Demonstration project, the Target Capacity for the 2020 Local Capacity Auction will be</li> </ul>

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		<p>specified in the Pre-Auction Report, and is currently expected to be 10 MW. With respect to Participants projects, a Direct DER or an Aggregator DER must have a DER Capacity of at least 100 kW and no more than 3,000 kW. As well, a Registrant can submit one or more Direct DERs or Aggregator DERs, provided that the total DER Capacity submitted does not exceed 3,000 kW.</p>
<p>4. Use of auction mechanism</p>	<p>Two stakeholders provided general feedback on the use of an auction mechanism for the pilot:</p> <ul style="list-style-type: none"> <li>• CanREA also continues to encourage the IESO and local distribution companies (LDCs) to consider different procurement mechanisms (e.g., RFPs/longer-term contracts) for NWAs, rather than solely relying on capacity auctions with short commitment periods – if not in this demonstration project then in future projects. The IESO will be re-initiating the Resource Adequacy Engagement later this year and has now acknowledged that capacity auctions may not be sufficient for attracting investment in new-build projects or longer-term investments. If a regional need is expected to persist in the long-term, other procurement mechanisms may be</li> </ul>	<p>A key objective of the Demonstration is to specifically demonstrate the use of energy and capacity market constructs to secure and operate DERs for local needs. It is acknowledged that there are other approaches to DER procurement that are important to explore as well. As part of the Grid Innovation Fund, the IESO is currently supporting <a href="#">other projects</a> that have adopted different models. The IESO welcomes additional opportunities to test and support the detailed exploration of other approaches in the future.</p> <p>Moreover, the Demonstration has been scoped to focus the project and be able to materially advance the Transmission-Distribution interoperability concepts and mechanisms being</p>

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	<p>more appropriate and result in lower costs for customers.</p> <ul style="list-style-type: none"> <li>• Peak Power notes that with a long Availability Window (12:00-21:00 on Business Days, per definition in Section 1.8) may limit competition, and that the IESO may want to permit a registrant-defined Availability Window and a portfolio-based approach to meeting the 10MW need across the Availability Window. This approach has been taken for other non-simulated Non-Wires Alternative projects, such as the Brooklyn Queens Demand Management (BQDM) program, which used a portfolio of six technologies to meet an overload need of 20-55MW, during the window from noon to midnight. As of August 2017, the project was projected to deliver \$95 million in net benefits. Peak Power notes that the success of the BQDM program can be attributed to other factors, such as the execution of long term contracts which help create predictable cash flows for owners and financiers</li> <li>• Peak Power would urge the IESO to also test other architectural and market models described in – but not limited to – Section 4 of its whitepaper in the interest of learning what best meets the needs of a clean, reliable, efficient, and</li> </ul>	<p>explored. The Demonstration is focused specifically on energy and capacity, including how the two services can be combined or ‘stacked’ at the distribution and transmission levels of the system. While it is acknowledged that ancillary services are an important component of the DER and NWA discussion, they have been scoped out of the first Local Capacity Auction in order to maintain a focused and manageable Demonstration.</p>

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	<p>customer-oriented electricity grid for Ontarians. Peak Power would also urge the IESO to consider ancillary services and other reliability services that distributed energy resources (DERs) can deliver, in the interest of unlocking all value that DERs can offer to customers and system operators alike.</p>	
<p>5. <i>Business Case / Project Economics</i></p>	<p>Several pieces of stakeholder feedback questioned the economic viability of participating in the auction, and provided recommendations on how to address:</p> <p><u>Long-term revenues</u></p> <ul style="list-style-type: none"> <li>• The revenues being offered for the NWAs through this auction does not appear to be high enough to support incremental generation – it appears to only support projects that are already in place i.e. the Draft Demonstration Project Rules do not encourage new investments.</li> <li>• The term is too short given the asset life of an energy storage resource and has a revenue stream which is variable based on whether the asset is called upon.</li> <li>• What happens after the pilot – are there any planned restrictions or opportunity for the pilot to be extended?</li> <li>• Given variable revenue it will be difficult to develop a business case for new assets.</li> </ul>	<p><u>Long term revenues</u></p> <p>As the Demonstration is being implemented under NRCan’s Smart Grid Program, it must abide by the program’s timelines, under which the project must be completed in 2022. The Demonstration, consisting of two six-month long summer Commitment Periods, is not intended to provide payments sufficient to support the full business case for a new DER installation. However, there are revenue streams available beyond the Demonstration, including in the IESO-Administered Markets, that could generate additional, long-term revenues to support certain DERs. As well, for a discussion on expanded DER participation in the IESO-Administered Markets, please refer to</p>

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	<ul style="list-style-type: none"> <li>Extend the Demonstration to five years. This will provide greater opportunity for participants to recover costs of new facilities</li> </ul> <p><u>Connection cost</u></p> <ul style="list-style-type: none"> <li>The revenues proposed to being offered do not fully consider the costs to connect into the system.</li> </ul> <p><u>Resource-specific targets</u></p> <ul style="list-style-type: none"> <li>Allocate minimum procurement requirements for certain resources types to evaluate the ability of new resource types to provide capacity and energy at a distribution level.</li> </ul>	<p>the <a href="#">Part 1: Conceptual Models for DER Participation</a> and Part 2: Options for Enabling DER Participation (currently being finalized) white paper series.</p> <p><u>Connection cost</u></p> <p>It is anticipated that any participants with DER facilities that are incurring connection costs will include an appropriate reflection of these costs in their Capacity Offer in the Local Capacity Auction. It is the responsibility of the participant to bear the connection costs and to capture any relevant costs in the Capacity Offer. The Local Capacity Auction clears the least cost set of Capacity Offers received.</p> <p><u>Resource-specific targets</u></p> <p>One of the key objectives of the Demonstration is to use auctions to secure services from DERs to demonstrate their use as NWAs and wholesale-level resources. Adding restrictions and constraints to the auction process would detract from this objective.</p>

Topic	Feedback	IESO Response
	<p data-bbox="489 834 789 865"><u>Stacking deferral value</u></p> <ul data-bbox="537 878 1220 1341" style="list-style-type: none"> <li data-bbox="537 878 1220 987">• The cost benefit approach to comparing the NWA and the traditional poles and wires is not fully transparent.</li> <li data-bbox="537 992 1220 1182">• Resources should be able to receive multiple revenue opportunities (“value stacking”) through participation in all of the following: IESO capacity auction, wholesale energy market, net metering, and this demonstration project.</li> <li data-bbox="537 1187 1220 1341">• The capacity and energy maximum clearing prices should support new build and should be increased to a level that would incent participation of new facilities.</li> </ul>	<p data-bbox="1253 326 1871 708">If certain resource types are economically competitive with other resource types, minimum procurement requirements are not necessary. To the extent certain resource types are not economically competitive, allocating minimum procurement requirements to those resource types is likely to result in reduced competition and higher prices, neither of which are aligned with the objectives of the Demonstration.</p> <p data-bbox="1253 834 1556 865"><u>Stacking deferral value</u></p> <p data-bbox="1253 878 1871 1377">The Demonstration is structured such that it facilitates the “stacking” of both local and system energy and capacity value. In the approach adopted in the Demonstration, the transmission and distribution (T&amp;D) network ‘deferral value’ is a component of the capacity value of the DERs, for which they receive Availability Payments. In determining the Maximum Capacity Price in the Demonstration, a one-year transmission and distribution deferral value (notionally based on the needs in York Region and simulating the maximum value year) was added to a resource reference</p>

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	<ul style="list-style-type: none"> <li>Consideration of options for Non-Wires Solutions should be consistent with distribution utility asset management plans and principles. To that end, revenue payments should be commensurate with the avoided cost of the wires option, including contract length, rather than the business model being proposed in this pilot.</li> </ul> <p><u>Storage as “load”</u></p> <ul style="list-style-type: none"> <li>Directly connected storage facilities are limited to participation as “generation” in the Demonstration, this eliminates half of the resource’s activities from participation. The Demonstration would be more efficient and provide greater benefits if it recognized all capabilities of a storage resource.</li> </ul>	<p>price. In other words, the Local Capacity Price in the Demonstration Area may be higher than capacity prices in other areas where there is not a ‘non-wires’ need and which is a benefit that the participating DERs would receive.</p> <p>Participation by a particular DER in both the IESO Capacity Auction and this Demonstration for the same commitment period is not permitted. Participants should not get paid twice for supplying the same capacity resource over the same time period.</p> <p><u>Storage as “load”</u></p> <p>The Demonstration is focused on NWAs in a simulated import-constrained area. When an area is import-constrained, any incremental load will exasperate the situation while energy output from generation or storage and energy reduction by DR would be needed to balance the local system. This value and signal is captured in the Demonstration.</p>

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	<ul style="list-style-type: none"> <li>The measurement and verification process should be restructured so that energy storage resources are properly valued.</li> </ul>	<p>Note that the Demonstration has adapted many approaches from the Hourly Demand Responses (HDR) participation model and applies it to all Permitted Resources, despite the fact that the HDR model was developed specifically to enable the participation of non-dispatchable loads in the Demand Response Auction (and the Capacity Auction going forward). This approach has been taken in order to leverage a suitable and established participation model, that many stakeholders are also already familiar with, to expediently develop the Demonstration.</p> <p>The treatment of storage in the Demonstration is similar in some ways to the wholesale market. For instance, in the IESO Capacity Auction, a storage resource will be required to be registered as both a dispatchable generation resource and as a dispatchable load resource, but only the dispatchable generation resource can be offered in the Capacity Auction.</p> <p>While there are similarities, it should be stressed that the Demonstration is not intended to reflect the current or future participation model of storage in the wholesale market. For a</p>

Topic	Feedback	IESO Response
		discussion on opportunities to better integrate storage resources in the IESO-Administered Markets please see the Energy Storage Advisory Group <a href="#">engagement</a> .
6. Other	<p>Stakeholder submissions included feedback on several other areas of the NWA Demonstration pilot, including the meter data approach, settlement for BTM natural gas, and several general clarifying questions.</p> <p><u>Meter Data Approach</u></p> <p>One stakeholder submission noted a concern with the data requirements for pilot participation:</p> <ul style="list-style-type: none"> <li>• EnergyHub has also been concerned about the strict data requirements set by the IESO, and the ability to retrieve meter data from utilities. We hope that through this pilot, the IESO will be able to use Alectra’s AMI data to calculate load shed results. We also request that data not be transferred through Green Button which has been challenging to use in the past. Rather, we would prefer to submit a list of customer meter numbers and receive data through a secure file transfer.</li> </ul>	<p><u>Meter Data Approach</u></p> <p>In the Demonstration, the participant does not need to submit meter data. Alectra will use meter data associated with the Meter Number registered in the Demonstration for the purposes of baselining Demand Response and settling all participants.</p>

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	<p><u>Behind-the-meter Natural Gas settlement</u></p> <p>One stakeholder requested clarity on participation for BTM natural gas projects:</p> <ul style="list-style-type: none"> <li>• Based on the project rules, I am not clear how a behind-the-meter natural gas resource would be properly treated and settled. Based on the current LDC meter, at times the site will appear as a DR resource, and at times the site will appear as a net export (generator).</li> <li>• This situation does not seem to be contemplated this in the current draft rules or how this might work. I would think the most accurate would be to settle based on revenue-grade metering on the output of the behind the meter generator.</li> </ul>	<p><u>Behind-the-meter Natural Gas settlement</u></p> <p>Thank you for this feedback.</p> <p>The type of hybrid load and generation participation described is not fully enabled in the Demonstration - the DR component of the facility would be eligible to participate (subject to other requirements being met Article 5.1 Meter Data in the Contract has been updated to clarify this issue.</p> <p>In the Demonstration, a Direct DER or Contributor DER must have revenue-quality metering connected to the Distribution System and approved and verified by Measurement Canada and the DSO as usable for billing purposes on an hourly or sub-hourly basis (see section 2.2.1 and 2.4.1 of the Rules).</p> <p>For a discussion of potential hybrid participation models and considerations, please refer to the <a href="#">Part 1: Conceptual Models for DER Participation</a> and Part 2: Options for Enabling DER Participation (currently being finalized) white paper series which has hybrid participation models within its scope.</p>

Topic	Feedback	IESO Response
7. <i>General Support</i>	<p>A number of stakeholders submitted feedback indicating their general support for the NWA Demonstration Project, with the following points:</p> <ul style="list-style-type: none"> <li>• CanREA commends the IESO and Alectra on moving forward with exploring options for NWAs. We look forward to engaging with the IESO as it continues to pursue innovative projects, especially as it relates to the integration of DERs within the electricity market.</li> <li>• While the City of Vaughan does not have any assets or the current staff resources to take advantage of the Demonstration Project, we strongly support the project to promote non-wires solutions for the energy grid.</li> <li>• The EDA supports the York Region NWA demonstration project and are encouraged that the IESO is exploring new opportunities and approaches with respect to integrating and operating DERs, including new roles for the distribution sector.</li> <li>• Enel X continues to support the IESO and Alectra with the NWA York Region Demonstration Project. Enel X participates in similar markets and programs across North America, with success and positive results for the system operator, the distributor, the participant and the ratepayer. The Demonstration is laying the</li> </ul>	Thank you for the feedback.

Topic	Feedback	IESO Response
	<p>groundwork for finding efficiencies and savings through the use of markets at the local level, and realizing the value of DERs throughout the region.</p> <ul style="list-style-type: none"> <li>• Energy Storage Canada (ESC) does applaud the IESO for developing the IESO York Region Non-Wires Alternative Demonstration Project. The Demonstration project has the potential to define the ability for Ontario LDC's to effectively evaluate and implement NWA while also assessing the viability of the Distribution System Operator concept. The project's objectives align with innovations ESC has been advocating for within the IESO wholesale markets and could provide significant insights that could lead to more efficient markets.</li> <li>• EnergyHub appreciates the improvements made to the program rules in the York Region NWA pilot. Many of the barriers that have kept residential aggregators out of the wholesale market have been removed in this program. Two of the most positive changes we see are the lower aggregation size of 100 kW and the control group baseline methodology.</li> <li>• Peak Power commends the IESO and Alectra for this innovative demonstration project to test the use of a capacity market as a NWA in the York</li> </ul>	

Topic	Feedback	IESO Response
	<p>Region. Peak Power applauds the IESO for taking the next step in realizing the vision described in its "Development of a Transmission-Distribution Interoperability Framework" whitepaper, by testing a Hybrid DSO model in the Demonstration.</p>	
<p>8. Third-party assessment</p>	<p>Many areas of the demonstration project rules outline areas where the DSO will have discretion; will there be a "fairness monitor" or similar to oversee consistency?</p>	<p>The Demonstration will be reviewed and assessed by a third-party upon its conclusion. The findings will be made available to stakeholders.</p>

**Feedback on specific sections of the draft demonstration project rules**

<p>9. Section 2.4 DER Eligibility (Aggregators)</p>	<p>Enel X requests confirmation on how a customer would participate as a direct participant or as part of an aggregation, where the asset is owned by a third party located at behind the meter at a customer site.</p> <ul style="list-style-type: none"> <li>• 2.1 unable to participate as not the end-use customer (with an account number)</li> <li>• 2.2 unable to participate as not directly connected to the DSO's system</li> <li>• 2.3 unable to participate as the asset is not owned by the contributor (therefore not a 'contributor DER' so unable to aggregate the asset)</li> <li>• 2.4 unable to participate as the asset is not owned by the contributor</li> </ul> <p>The DER participation model that Enel X operates under in Ontario is not unique to Enel X nor to Ontario. The model is a standard participation model throughout electricity markets and should be included in any electricity markets (wholesale and distribution level).</p>	<p>Thank you. The description of the requirement has been amended in sections 2.2.1 and 2.4.1 of the Demonstration Rules to clarify that a customer that is a Direct Participant must have User Rights over a DER (rather than ownership).</p>
<p>10. Section 2.4.1 b) DER Eligibility (Aggregators)</p>	<p>Reference: "...be in respect of a single Aggregator Resource Category"</p> <p>Please explain the reasoning behind the inability to aggregate different resource types.</p>	<p>The focus of the project is on Transmission-Distribution interoperability models. Testing new aggregation participation models would significantly expand the scope of the Demonstration. For a discussion of aggregation participation models and considerations, please refer to the <a href="#">Part 1: Conceptual Models for DER Participation</a> and Part 2: Options for Enabling DER Participation (currently being finalized)</p>

<b>Feedback on specific sections of the draft demonstration project rules</b>		
		white paper series which has aggregation models within its scope.
11. Sections 5.2 to 5.10 Local Capacity Auction	<p>The Demonstration’s commercial framework has much in common with the IESO Demand Response Auctions, this in my opinion is heavy handed and complicated as this is to be a trial to determine the process of a non-wires project:</p> <ul style="list-style-type: none"> <li>• The asset must be owned by the contract holder</li> <li>• Cannot participate in multiple programs</li> <li>• No diesel prime movers allowed</li> </ul>	<p>Please see the responses provided above under the “Use of Auction Mechanism” topic as well as the response to the “2.4 DER Eligibility (Aggregators)” topic above.</p> <p>In terms of the exclusion of diesel as a fuel source, as mentioned during the July 23, 2020 webinar, the Demonstration’s funding sources have restrictions that underlie this rule.</p>
12. Section 5.8 b) Capacity Offer Submission	<p>Reference: <i>“A Capacity Offer would, if accepted, be binding for the entirety of the Commitment Period”</i></p> <p>In the current construct, demand response providers must bid the minimum load reduction they are able to achieve for the entire six-month delivery period. Meaning, a seasonal resource that may be able to provide more load drop in August must bid the amount they are able to provide in May. As a result, the IESO is not taking advantage of the entire resource available and resources are not able to maximize their revenues. We propose the ability to take on monthly obligations within the commitment period.</p>	<p>The intent of the Demonstration is to limit deviations from existing IESO wholesale market approaches in order to achieve one or more of the objectives laid out in the Demonstration Project Rules or to practically facilitate the Demonstration.</p> <p>Six-month capacity obligations have been used in the Demand Response Auction and will be used in the forthcoming Capacity Auction.</p> <p>As well, please note that Contracted DERs are required to be capable of providing their Local Capacity Obligation in every hour of the Availability Window throughout the Commitment Period. The degree to which this</p>

**Feedback on specific sections of the draft demonstration project rules**

		obligation is fulfilled will be assessed through a pay-for-availability mechanism. During the Commitment Period, Participants are required to satisfy their Local Capacity Obligation by participating in the Local Energy Auctions. If the Local Capacity Obligation is not made available, the Availability Charge will be incurred.
13. Section 5.10.2 Form of Contract	Please advise when a copy of the Contract will be available for comment. Although the contract is assumed to be based on the rules outlined in the Demonstration Project Rules, it will be efficient for a review of the contract in advance of registration for the Local Capacity Auction.	The Contracts were posted on the Demonstration’s engagement <a href="#">webpage</a> simultaneous with these responses to the July 23 webinar feedback.
14. Section 6.3 Local Energy Auction Format	Reference: “... <i>there will be a maximum of ten (10) Activation Days during the Commitment Period</i> ”.  Will there be a minimum number of activations?	No, there is not a minimum number of activations.
15. Section 6.4 Bid/Offer Format	Please confirm if there are any differences in the way C&I DR resources and gas-fired generators or storage resources price-quantity pairs other than C&I DR will submit monotonically decreasing pairs and generators/storage will submit monotonically increasing price quantity pairs.	There are no other differences.

**Feedback on specific sections of the draft demonstration project rules**

<p>16. Section 6.5 Maximum Energy Price and Minimum Energy Price</p>	<p>Reference: d) <i>“The bid price will not be less than the Minimum Energy Price and must not be greater than the Maximum Energy Price as specified in the Pre-Auction Report”.</i></p> <p>Will the maximum energy price follow the wholesale market?</p>	<p>As noted in the July 23, 2020 webinar, it is expected that the Maximum Energy Price in the Demonstration will be \$2000/MWh or \$2/kWh, consistent with the IESO real-time energy market. Please check the Pre-Auction Report, when available, for the actual Maximum Energy Price.</p>
<p>17. Section 6.7 Auction Clearing and Activation</p>	<p>Reference: <i>“A standby notice will be issued to Participants for each Contracted DER at 07:00 EST of each Standby Day”</i></p> <p>Can you expand on how participants will be notified? EnergyHub supports the use of automated dispatch signals through email. The IESO has historically required participants to login to their portal to manually receive notifications. If this system continues, many small aggregators will likely not be able to participate.</p>	<p>As provided in Section 1.7 of the Rules:</p> <p>Notices sent by the DSO to Registrants, Eligible Registrants and Participants will be sent via the Platform. The DSO will also use reasonable efforts to send a copy of any such Notice by email to the registered email the Registrant has provided in its Registration. Once a Contract is entered into, Participants are responsible for routinely checking the Platform, reviewing and responding to, where required, all Notices. In particular, the Participant shall be wholly responsible, and the DSO shall not have any liability to the Participant, in the event the Participant fails to take any necessary actions during the Commitment Period following and pursuant to any Notice that is provided using the Platform or sent by email.</p>

**Feedback on specific sections of the draft demonstration project rules**

<p>18. Section 6.10 Test Activations</p>	<p>Reference: <i>“A contracted DER may be tested for up to four consecutive hours and will be expected to follow their activations for the entire duration of the test”.</i></p> <p>Please include a definition of what constitutes a failed Test Activation.</p>	<p>Thank you. The assessment of Test Activations has been added to the settlement exhibit in the draft Contract, which has now been posted to the Demonstration’s engagement <a href="#">webpage</a>.</p>
<p>19. Section 6.10 Test Activations</p>	<p>Reference: <i>“Test Activations will be conducted during the Commitment Period, and will be scheduled to occur during the Availability Window of an Activation Day.”</i></p> <p>Activation testing should recognize weather sensitive resources and call events during peak periods. The profiles of residential HVAC systems, which represent the largest points of consumption in typical homes, will reflect changes in weather as much or more than human activity patterns. For residential customers, space cooling constitutes the largest discretionary load, which is highly correlated with temperature and other weather characteristics. Therefore, when it is hot, for example, household energy consumption increases, and more load is available to be reduced. On mild days there may be little demand response resource to draw upon. This variability does not mean the resource has no value, because this same pattern of demand tends to dominate the overall demand of the grid as well. Ensuring testing coincides with peak days will allow these resources to provide maximum load shed and grid reliability.</p>	<p>Contracted DER are required to be capable of providing their Local Capacity Obligation in every hour of the Availability Window throughout the Commitment Period. Please see the response to topic “12. Section 5.8 b) Capacity Offer Submission” above for further information on the obligation.</p> <p>The scheduling of Test Activations will be consistent with periods when local and system peaks may be expected, in alignment with the objectives of the Demonstration.</p>

<b>Feedback on specific sections of the draft demonstration project rules</b>		
<p>20. Section 7.3 Test Activation Payments</p>	<p>Reference: “...which rate is established by the DSO in its discretion and subject to change”.</p> <p>Please clarify how, why and when a DSO may “at its discretion” change the Test Activation rate of \$0.25/kWh.</p>	<p>Thank you – the language has been amended. The Test Activation Payment Rate will be \$0.25/kWh.</p>
<p>21. Section 9. Demonstration Review and Amendments</p>	<p>Reference: “...shall not affect any executed Contracts”.</p> <p>Does this section imply that changes will be made to the program for the next commitment period/ next set of Contracts?</p> <p>Any confirmation on what the second window will be?</p>	<p>While the 2020 and 2021 Local Capacity Auctions are expected to be similar in design, the intent is to draw from lessons learned in the first Local Capacity Auction to make refinements to the Rules that will apply to the second Local Capacity Auction expected in 2021.</p>
<p>22. Appendix H Demand Response Baseline</p>	<p>The residential control group baseline methodology currently requires a minimum of 350 participants. This is much too large, adding significant cost for residential load aggregations, and preventing the IESO from capturing as much load shed as it reasonably can. The control group should be large enough that there are statistically significant limits on the impact that random fluctuations in individual usage can have on the baseline (and hence on reduction estimates). However, it should not be so large as to compromise the ability of the aggregation to provide the most load shed possible, or exclude smaller aggregations from participating. A baseline working group in California proposed a control</p>	<p>Thank you. Given a 1 MW minimum size requirement, a minimum control group size of 350 contributors is expected to deliver an approximately 95% confidence level with a margin of error of 5%.</p> <p>Considering the smaller minimum size requirement in the Demonstration, the Rules have been updated to permit smaller control group size depending on the Local Capacity Obligation, as provided by the below table and reflected in the baselining exhibit in the Contract.</p>

**Feedback on specific sections of the draft demonstration project rules**

group baseline that was approved by the FERC in 2019. The approved tariff uses a control group of one hundred and fifty homes (150) as the minimum acceptable size.

In addition, participation would be more tenable if the IESO adopted alternative baseline methodologies so that smaller aggregations can more easily meet their minimum load response threshold. This same CAISO proposal included two additional baselines based on extensive field data: a 4-day weather matching baseline using maximum temperature with a +/- 40% day-of adjustment and a highest 5/10 day matching baseline with a +/- 40% day-of adjustment.

Local Capacity Obligation (kW)	Control Group Size (# of Contributors)
100 – 240	150
250 – 490	200
500 – 740	250
750 – 990	300
≥ 1000	350

Please note that the Capacity Offer in the Demonstration will be in increments of 10kW.

While the Demonstration will employ the baselining methodologies used for Hourly Demand Response in the IESO Capacity Auction, we have shared your feedback with the staff that manage the Demand Response Working Group.

Table 2

No.	Question	IESO Response
1.	If each aggregator DER must be 100 kW and no more than 3,000 kW - can we bid multiple aggregator DERs?	<p>Yes, multiple DERs can be offered in the Local Capacity Auction, provided that each DER has a DER Capacity of at least 100 kW and no more than 3,000 kW. As well, the total DER Capacity submitted by the Registrant and its Affiliates cannot exceed 3,000 kW.</p> <p>Please note too that in accordance with section 2.2.1 of the Rules, only one DER can be registered per Connection Point, unless otherwise consented to by the DSO. In accordance with section 5.8 of the Rules, only one Capacity Offer can be submitted for an Eligible DER in the Local Capacity Auction, but the Capacity Offer can be split into up to 5 price-quantity pairs.</p>
2.	What will happen if we submit an aggregation where some of the DERs are already registered by someone else in the wholesale market - will IESO tell us and can we just remove them and replace them? Will we be able to submit those lists early in order to do reconciliations and resubmits?	The DSO would reject any Contributor DERs that do not satisfy the requirements in Section 2.4.2(c) of the Rules. Please note that the process for submitting Change Requests for Contributors DERs in section 8 of the draft Rules has been revised in the final Rules now posted, including further clarity with respect to the submission a revised Change Request in the event that the DSO rejects any new Contributor DERs that were the subject of a Change Request.
3.	Can we bulk upload sites?	Yes, the Platform will have this capability.
4.	Can energy bids be submitted for multiple days/weeks?	A Bid/Offer will remain in place as a standing Bid/Offer throughout the Commitment Period and will apply to subsequent Local Energy Auctions unless the Participant takes steps to change the

No.	Question	IESO Response
		Bid/Offer or withdraw it. Please refer to Section 6.6 of the Demonstration Rules.
5.	How firm does capacity need to be on Oct 21st?	The Supplemental Registration Period is available for Future DERs and for Aggregator resources that do not have firm capacity on October 21st. We recommend you consult with your legal advisors on the consequences should a Participant that clears the capacity auction fail to secure the required amount of firm capacity by the end of the Supplemental Registration Period.
6.	Can bidders trade away or take on additional capacity obligations before the delivery period?	No, this is not a feature of the Demonstration project.
7.	Can you clarify the penalty structure? Section 7.4 "Non-Performance Charges" states "Dispatch Charges do not apply to Demand Response Resources that are Residential Customers."	<p>There are no penalty charges contemplated in the Demonstration. Non-performance charges for failure to meet specified service obligations are not penalties.</p> <p>The dispatches charge applies in Activation Hours when the Participant fails to follow activation instructions for the Contracted DER and provide the Quantity Reduced within a fifteen percent (15%) dead band of the Quantity Activated. As noted in the settlement exhibit to the Contract, this requirement is checked on a 5-minute interval basis.</p> <p>However, this requirement will not be applied to the Demand Response Resources (Residential). Please note that the Capacity Charge and the Availability Charge do apply to the Demand Response Resources (Residential) and all other Permitted Resources.</p>

No.	Question	IESO Response
8.	Can you confirm if Alectra will be calculating performance or if this will be done by the aggregator. Will aggregators have access to meter data?	In the Demonstration, the participant does not need to submit meter data. Alectra will use meter data associated with the Meter Number registered in the Demonstration for the purposes of baselining Demand Response Resources and settling all participants.
9.	Will test events be called outside of the shoulder months?	Contracted DER are required to be capable of providing their Local Capacity Obligation in every hour of the Availability Window throughout the Commitment Period. Please see the response to topic “12. Section 5.8 b) Capacity Offer Submission” in table 1 for further information on the obligation.  The scheduling of Test Activations will be consistent with periods when local and system peaks may be expected, in alignment with the objectives of the Demonstration.
10.	Will customers be required to submit their meter number? Is there both an account number and meter number?	The Meter Numbers will be required for Direct DERs and for Contributor DERs to complete the Supplemental Registration.  Direct Participants must provide an account number as part of the registration process. For Aggregators, a DSO account number is not required in order to register.
11.	Is the agreement available yet?	The Contracts were posted on the Demonstration’s engagement website simultaneous with this document.
12.	Are affiliates named in the agreement?	Only the DSO and the Participant will be party to the Contract.
13.	Is there a specific form that residential customers must submit to participate? Are digital acceptances acceptable?	An Aggregator will be required to provide Confirmation that it has acquired the necessary User Rights with respect to each Contributor DER. In addition, for residential customers that are party to a retailer contract,

No.	Question	IESO Response
		<p>Aggregators must submit a completed form of electricity retailer waiver as per Appendix B of the Rules.</p> <p>Please refer to the definition of User Rights in Appendix A of the Demonstration Rules. As well, please review section 11.1 Reserved Rights, which speaks to the DSO right to request Additional Information.</p>
14.	What % of the territory has an appropriate meter?	To the best of our knowledge all load customers with accounts with Alectra Utilities within the Demonstration Area will have the appropriate meter in accordance with requirement 2.4.1 of the Rules.
15.	What does it mean to achieve an “in-service date”?	Thank you – the definition has been revised in the final Rules: “The date that a DER, which was not previously operational, is in the case of a Gas-Fired Resource or a Storage Resource, commissioned and synchronized to the DSO’s Distribution System such that it is capable of Delivering Energy to, or withdrawing Energy from, the DSO’s Distribution System in compliance with Laws, and in the case of a Demand Response Resource, connected to the DSO’s Distribution System via the Connection Point such that it is capable of Reducing Energy from the DSO’s Distribution System in compliance Laws.”
16.	What % of customers will be served by a “retailer”?	There is a small percentage of customers served by electricity retailers within the demonstration area.
17.	What % of customers may be receiving an incentive under the EE auction pilot? How can we identify those?	The final Rules have been updated to allow a load facility that is participating in the Energy Efficiency Auction to also participate in the Demonstration. However, please note that energy efficiency is not Permitted Resource in the Demonstration. It is expected that the baselining

No.	Question	IESO Response
		methodology employed in the Demonstration will appropriately capture the effects of participation in the Energy Efficiency Auction.
18.	Section 3.2 - it is hard to replace unenrollments 1 for 1 - is it appropriate to just over enroll participants?	Please see the final Rules, which have been updated. Change Requests, as described in section 8 of the Rules, will not be limited to one-to-one changes.