

Stakeholder Feedback and IESO Response

Distributed Energy Resources (DER) Roadmap – October 20, 2021

Following the October 20, 2021 public webinar on the DER Market Vision and Design Project, the Independent Electricity System Operator (IESO) received feedback from participants on the focus areas and questions for Phase I of the project, whether the scope of the project is clear, as well as additional inputs to the project for IESO consideration.

The IESO received feedback from:

- [Advanced Energy Management Alliance \(AEMA\)](#)
- [Recurve](#)

The presentation materials and stakeholder feedback submissions have been posted on the [DER Market Vision and Design Project webpage](#). Please reference the material for specific feedback as the below information provides excerpts and/or a summary only.

Notes on Feedback Summary

The IESO appreciates the feedback received from stakeholders. The IESO has provided a summary below, which outlines specific feedback or questions for which an IESO and/or OEB response was required at this time.

Phase I focus areas and questions

Both stakeholder submissions commented on the appropriateness of the identified focus areas and questions to complete Phase I of this project. The submission from AEMA included recommendations for consideration. A summary of these points is included in the table below.

Feedback	IESO Response
<p>AEMA commented that there is a lack of clarity on how decisions will be made between foundational versus enhanced participation models, and that a much better understanding of the process and framework for determining what will be considered foundational versus enhanced is required before stakeholders can provide more meaningful feedback on the proposed approach.</p>	<p>The IESO appreciates this feedback and agrees that additional clarity on the criteria for evaluating foundational versus enhanced models will need to be presented in further detail. At a high level, the IESO's foundational models will focus on increasing opportunities for DER participation in support of reliability needs mid-decade while minimizing changes to major tools such as the Dispatch Scheduling and Optimization (DSO) engine. For example, options that require DSO upgrades are more likely to be considered in the enhanced models rather than the foundational.</p> <p>In Q2 of 2022, IESO will also present detailed criteria by which options for answering the Phase I questions will be assessed. The IESO will leverage the criteria established by other projects such as the Hybrid Integration Project (slide 18) and Market Renewal.</p>

Feedback	IESO Response
<p>AEMA recommend the IESO consider prioritizing the “low hanging” fruit and expedite timelines (e.g. enabling DERs to participate in Operating Reserve before 2024 could send a clear signal to the market and allow time for customers/aggregators/developers to develop compelling business models and systems). Note: AEMA’s submission included additional details regarding barriers to Operating Reserve participation and recommendations for improvement, which can be seen in their original submission.</p>	<p>Timelines for DER integration have been developed through the Enabling Resources Program (ERP). The ERP has developed a work plan for enhancing the participation of emerging resources, including hybrid generation + storage resources, distributed energy resources, and storage resources. The ERP work plan was developed based on an approach to prioritizing enablement opportunities that was discussed with stakeholders earlier in 2021. The ERP work plan reflects a number of key considerations including:</p> <ul style="list-style-type: none"> • introducing new participation models once the Market Renewal Program is completed, • alignment with the timing of existing contract expirations (such as the Renewable Energy Standard Offer Program, Feed-In-Tariff, etc.), • alignment with when system needs are expected to emerge as identified in the IESO’s Annual Acquisition Report, and • the availability of IESO staff and budget to complete the work. <p>Hybrid resources have been identified as the number one priority for enabling resources and the timing of the initiatives reflects this decision.</p> <p>The IESO thanks AEMA for their recommendations regarding barriers to Operating Reserve and will refer to this feedback when assessing options, however at this point the IESO is seeking feedback on the Phase I questions themselves and not the potential options/solutions associated with the question. In January 2022, IESO will publish the MVP deliverables and timelines which will include when the IESO will present options to the Phase I questions for stakeholder feedback.</p>

Feedback	IESO Response
Recurve indicated they believe the focus areas and goals established for the project are foundationally correct.	The IESO appreciates this feedback.

Project scope and inputs

AEMA noted the need for further clarity before being able to comment on the scope, and Recurve’s feedback submission included two clarifying questions. These points are summarized in the table below.

Feedback	IESO Response
AEMA reiterated the need for clarity on the framework for determining foundational versus enhanced participation models.	Please see the IESO’s response above regarding criteria for determining foundational vs. enhance participation models.
<p>Recurve’s feedback submission included two clarifying questions:</p> <ul style="list-style-type: none"> • Is the goal of the project to alter the existing participation pathways for single DERs and aggregated DERs, or create entirely new participation pathways? • Is it within the scope of this project to set up customer-level meter data transfer between electric distribution companies and IESO for consistent, large-scale metering and settlement? 	<p>The IESO is open to both altering existing pathways and enabling new pathways for DER participation.</p> <p>Metering options will begin to be addressed via Phase I Questions 8 and 9. The IESO has experience with leveraging distributor meter data, particularly for demand response measurement and verification (M&V), and will explore if additional opportunities are feasible when determining options to answer these questions.</p>

The feedback submission from Recurve included recommendations on other inputs to the project for the IESO to consider, which are detailed in the table below.

Feedback	IESO Response
<p>Recurve encouraged the IESO to consider the Demand FLEXmarket case study in California in regard to participation pathways and M&V methods for IESO.</p> <p>Recurve also encouraged IESO to review Recurve’s CAISO report regarding enhanced M&V methods for settlement purposes.</p>	<p>The IESO appreciates the suggestion and will review the Demand FLEXmarket and M&V reports from CAISO, along with case studies and methodologies from various Independent System Operators (ISOs)/Regional Transmission Organizations (RTOs) subject to the Federal Energy Regulatory Commission (FERC) as a part it’s jurisdictional scans and research for determining design options for the Phase I questions.</p>

General Comments/Feedback

Both stakeholder feedback submissions included general comments and recommendations for consideration, which are summarized in the table below.

Feedback	IESO Response
<p>AEMA commented on the timelines, and referenced FERC’s mandating of “much more aggressive timeframe to enable DERs in FERC regulated regions”, and asked if the IESO completed an analysis for what additional resources would be required to enable DERs on a timeline which would facilitate participation of the existing 5000MW+ resources already in Ontario on a faster timeline.</p>	<p>Please see the IESO’s response above regarding timelines and associated rationale. Note, to date, only NYISO and CAISO have submitted FERC Order 2222 compliance filings as other jurisdictions are still in the process of stakeholdering their designs. This provides the IESO the opportunity to learn from their approaches and the time to apply them, where appropriate, while remaining within ERP timelines.</p>
<p>AEMA’s feedback submission included additional information on Ontario Operating Reserve barriers, and the associated recommendations are detailed here:</p> <ul style="list-style-type: none">• Allow distribution connected load resources to participate in OR by using existing the HDR data submission and aggregation framework while adding telemetry requirements without requiring the transfer to IESO metered.	<p>Please see IESO response above regarding barriers to Operating Reserve.</p>

Feedback	IESO Response
<p>Recurve’s feedback submission included four additional recommendations for consideration, which are detailed here:</p> <ul style="list-style-type: none"> • Set aggregation MW thresholds as low as possible to encourage early participation. • Streamline participation pathways to account for the large number of aggregated resources that will be brought to market. • Implement robust, consistent, transparent, and reproducible M&V methods for large-scale metering and settlement of behind-the-meter assets. Recurve recommends settling resources (especially those part of a larger aggregation) at the utility interval meter to significantly streamline M&V as opposed to device-level DER settlement. Device-level settlement introduces uncoordinated data streams, irreproducible M&V models, and uncertainty into the results pool for settlement purposes that can hamper implementation and participation. • Streamline meter data collection for aggregated resources participating in the IESO market, to reduce any data collection burdens for aggregators 	<p>The IESO thanks Recurve for their recommendations and will refer to this feedback when assessing options, however at this point the IESO is only seeking feedback on the Phase I questions themselves and not the potential options/solutions associated with the questions. In January 2022, IESO will publish the MVP deliverables and timelines which will include when the IESO will present options to the Phase I questions for stakeholder comment and feedback.</p>