# Feedback Form

## Enabling Resources Program (ERP) – Distributed Energy Resources (DER) Integration Project – Market Integration

## Meeting Date: October 15, 2026

### Feedback Provided by:

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**Date: Oct. 23, 2026**

Following the **October 15, 2026**, engagement session, the Independent Electricity System Operator (IESO) is seeking feedback on the items discussed during the webinar. The presentation and recording can be accessed from the engagement web page.

Please submit feedback to engagement@ieso.ca by **October 30, 2026**. If you wish to provide confidential feedback, please submit it as a separate document, marked "Confidential." Otherwise, to promote transparency, feedback that is not marked "Confidential" will be posted on the engagement webpage.

## ERP's DER Integration Project

Please provide your feedback and comments on the information presented this engagement which included the following topic areas:

## Front-of-the-Meter DER/A Participation Model

| Topic | Feedback |
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| Do stakeholders have any questions or clarifications required on the DER/A requirements to participate in the IAM?<br><br>**Why is the IESO asking:**<br><br>To confirm a shared understanding and maintain consistency in messaging related to DER/A requirements. | EPE is supportive of the IESO introduction of a DERA resource type and has the following clarifying questions for IAM participation:<br>1. This model describes the aggregator interacting with both the LDC and IESO markets for bidding, illustrating the dual DSO model. Please confirm if the IESO intends for this model to work under any of the 3 TDWG models?<br>2. Slide 20 indicates the IESO will monitor the DERA, will the IESO require aggregated telemetry? Or is this monitoring of the TDI itself?<br>3. Many DER were built for host facility needs with incremental energy available for grid benefit. Please provide how host obligations should be managed? This proposal appears to assume the entire DER is dispatchable for grid benefit and that the host obligations must be managed by the aggregator. |

## Wholesale Market Settlements – Front of Meter DER/A

| Topic | Feedback |
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Please provide feedback on the potential impacts of this approach, including any barriers, risks, or unintended consequences that could affect DER participation in wholesale markets under a DERA framework.

Please provide examples, evidence, or supporting materials that address this trade-off, including how the proposed approach ensures fair treatment of DERs relative to directly connected resources; avoids inappropriate cost shifting or cost avoidance among participants; and maintains efficient market participation while minimizing unnecessary administrative and settlement burdens.

**Why is the IESO asking:**

The IESO's proposed participation model is technology-agnostic and enables multiple resource types to participate within a single aggregation. This is intended to lower barriers for smaller DERs and facilitate access to wholesale markets. While some technologies have provisions to exempt certain costs (e.g. energy storage may be exempt from certain GA costs/applicable transmission tariffs), DERA-connected resources will not be eligible for technology-specific exemptions as the IESO is taking a technology-agnostic approach. This pragmatic approach balances implementation and ratepayer value.

EPE would like to raise the following potential risks and unintended consequences of the proposed model:

1. the aggregator will offer and control the FTM DER to meet an aggregate dispatch instruction, however they will not have the ability to control which TDI the injections flow through. The LDC will need to know the contributor level dispatches to ensure deliverability per TDI and have time to perform the assessment plus any necessary switching actions.

   The potential impact of this is a misalignment between real-time flow and schedules per TDI which, if material, could impact price and reliability. This could be exacerbated by differences between IESO and LDC forecasted demand per TDI. The IESO should clarify obligations and accountability regarding DERA TDI assignments and actual TDI flow.

   Additionally, it is not appropriate to subject the DERA to LMP price exposure at one TDI for times when energy flows through a different TDI. The IESO should consider whether subzone HUB prices are more appropriate.

2. the aggregator will receive a dispatch at the TDI (ex. 10MW), but the metering is at the DER facilities not the TDI. How will the distribution losses between the TDI and the DER facilities be accounted for?

   The IESO will <u>not</u> receive 10MW at the TDI if the DERA follows the dispatch.

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| | 3. the LDC-IESO Data sharing deck requirements imply 6pm day-ahead and 2-hours ahead deadline, but this will mean the DERA is taking on DAM two-settlement risk if the IESO and LDC needs conflict (Example provided under "general feedback"). This could lead to counter intuitive market/program incentives for either the IESO or LDC. Additional clarity would be beneficial on the dispatch data update timelines and two-settlement risk exposure for LDC scheduled needs. |

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| Is there any feedback on the IESO's proposal to settle with the MP (aggregator) and not the individual DER contributors?<br><br>**Why is the IESO asking:**<br><br>To avoid compensating a DERA twice for the same service, the IESO will act as the settlement agent for a DERA that is registered to participate in the IAM.<br><br>When participating in the IAM, a DERA signals to the IESO that a portion of its service is intended to meet local distribution system needs/non-wholesale program requirements, or where it deviates from dispatch due to conditions outside of the IESO's control, the IESO shall continue to settle the DERA against the dispatch signal sent to the resource and the response that the IESO measures at the aggregate level.<br><br>Isolating the services delivered or withheld in response to different stakeholder's needs from a single aggregate's measurement poses a significant technical challenge. To ensure that the wholesale market remains balanced and financially neutral, the IESO expects the aggregator to settle with the relevant stakeholder or distributor for the portion of the service that it has offered to other programs or is unable to deliver in response to an IESO dispatch. | From EPE's perspective, this approach introduces a new and inappropriate role for aggregators within financial settlement that is not transparent and does not ensure fairness to DER contributors.<br>Under the Hourly Demand Response model, the aggregator is only responsible for settlement of capacity and activations of the aggregated resource while energy settlement of contributors stays with the IESO and LDCs. Under the DERA model, it will be at the aggregator's discretion how to pay/charge contributors for all aspects of energy and OR settlement. While the Aggregator is responsible for offering and dispatching the contributors which includes making two settlement risk decisions, this approach would not be transparent, nor would it allow the IESO or LDC to ensure appropriate distribution of energy settlement based on actual metered consumption/injection. EPE recommends the IESO either: 1. provide transparent contributor settlement requirements through charge types and equations instead of leaving this flexible to the Aggregator; or 2. Perform energy and uplift settlement at the contributor level, while passing only OR and two-settlement exposure payments/charges to the aggregator for distribution.<br><br>Additionally, this model incents the DERA to balance revenue of injecting for grid benefit vs offsetting charging costs of its fleet. This could introduce new challenges for distributors to manage offsetting injection and consumption at separate feeders within their system overnight. |

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| In the illustrative example on slide 21, where a FTM DER/A is simultaneously offering services both to the bulk and distribution grid during any given interval:<br><br>*Distributor*<br><br>What information would the distributor need from the IESO for the distributor to settle with the DER/A for the distribution portion of the service?<br><br>*Market Participant / Aggregator*<br><br>In addition to currently available information from the IESO, what additional information would the market participants/aggregators need to accurately settle downstream with the DERA contributors?<br><br>What challenges do participants/aggregators see with settling individual contributors for performance when the aggregate response to the IESO dispatch involves inefficient or directionally divergent scheduling of underlying contributors?<br><br>**Why is the IESO asking:**<br><br>Building on the previous question, the IESO proposes to settle with the DER aggregate owner and expects that the aggregate owner will settle with individual DER contributors for their portion of the service. The IESO does not intend to control and will not have visibility into individual DER contributor's response but will only consider the aggregate's response when settling with the DERA. | The LDC would require the meter data for any LDC market/program contributors to assess performance with any LDC schedules. |

## Wholesale Metering – Front of Meter DER/A

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| Do you foresee any concerns or challenges with adopting the proposed metering implementation approach for FTM DERs directly connected to the distribution system (reference Slide 38)?<br><br>Are there any barriers that DER operators, aggregators, or any other DER stakeholders will face if required to utilize wholesale metering installations for each of the DER contributors that contribute to a front-of-the-meter aggregation?<br><br>If so, please describe the barrier in as much detail as possible, including:<br>• Why it is a concern or challenge.<br>• Any business, operational, technical, or financial impacts.<br>• The specific needs or requirements that would help address the concern.<br>• Potential solutions or alternative approaches that could mitigate the issue.<br>• How your proposed solution would benefit DER operators, aggregators, customers, and the broader DER stakeholders and existing market participants.<br><br>Your feedback will help us better understand implementation considerations and identify practical approaches that support reliable market participation while minimizing unnecessary burden on stakeholders.<br><br>Besides the IESO, will other entities need access to the meter readings to support their activities? If so, explain a preferred measurement source (i.e., direct meter read), intended usage, read frequency, etc.<br><br>**Why is the IESO asking:**<br><br>For FTM DERs that plan to participate in the wholesale market, either on their own or as part of a DER aggregation, the proposed approach builds on existing wholesale metering requirements and *market rules* already used for | No comment. |

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| *embedded generators*. This provides a familiar and practical path forward for implementation. By leveraging established processes, DER owners and aggregators can more easily manage metering registration, metering data collection, and ongoing compliance throughout the life of their assets. In addition, Market Rules Chapter 6, Section 4.6 provides flexibility for *embedded generators* with a capacity below 2 MVA. For example, these *facilities* may be able to use a standalone meter – either main *meter* or alternate *meter* - and may be subject to reduced testing and emergency preparedness requirements. These provisions can help lower both upfront and ongoing metering costs while continuing to meet market requirements.<br><br>We welcome feedback on whether this approach is practical for your organization, any challenges you foresee, and opportunities to further reduce barriers while maintaining metering accuracy, reliability, and compliance.<br><br>Please share any suggestions for improving metering data access, clarifying stakeholder roles and responsibilities, streamlining processes, or introducing additional data, controls, or alternative metering approaches. We are also interested in ideas that would support the successful implementation of FTM DERs today while enabling the continued growth and scalability of DER integration in the future. | |

## General Comments/Feedback

Two Settlement stacked example for one hour:

- The DER offers 5MWh for $30/MWh, and 10MWh for $50/MWh in DAM. The IESO schedules 5MW at a $35/MWh LMP → DAM settlement is $175 for the hour.
- The LDC communicates an 8MWh schedule by 6pm day-ahead to the aggregator to alleviate a local feeder issue in that hour.
- The aggregator updates the IESO dispatch data to 8MWh for -$2000/MWh and 10MWh for $50/MWh in RTM.

- The IESO experiences heavy congestion at the TDI and the RT price drops to -$2000/MWh from congestion costs and the DERA is scheduled to 8MWh for an interval since it cannot be constrained off → RTM balancing settlement is ((8MWh-5MWh) x -$2000/MWh)/12 = -$500 (for 1 interval)
- The LDC market/programs are unlikely to compete with +/-MMCP prices so the aggregator may opt-out of their LDC activation, creating local reliability risk due to IESO market signals.
- Since the TDI modelling will be static but actual operation may allow for distribution system configuration changes, if notified by IESO operators the distributor may have been able to move the flow to another TDI to allow for DER deliverability and alleviate the congestion on the IESO grid at the TDI.

While EPE appreciates that this was an extreme example and that all market resources and MW should be treated equally, the IESO should avoid creating market incentives that are counter productive to the DER assisting with distributor local needs. Especially given the proposed requirement to offer -$2000 for LDC activations which will not represent true cost. EPE recommends that the IESO two-settlement exposure applies to the IESO dispatched MWh only, and that any LDC schedules are settled at DAM OZP + LFDA like all other LDC settled MWh (or a comparable LDC price exposure driven model). This will allow the LDC to independently manage any DER payments and incentives for services provided.