January 25, 2019

Ontario Energy Board
2300 Yonge Street
P.O. Box 2319
Toronto, ON M4P 1E4
Attn: BoardSec@OEB.ca

Re: **EB-2018-0287**

Dear Ms. Walli:

The Electricity Distributors Association (EDA) appreciates the opportunity to respond to "questions for stakeholder input" contained in the November 22, 2018 letter following the release of Report of the Advisory Committee on Innovation to the OEB. The EDA's response to the OEB's three questions reflect the input of our LDC members and the specialized skills of our Councils.

Ontario's LDCs are well-positioned to participate in the transformation of the industry as they are the face of the industry to the consumer. The EDA's vision is documented in our February 2017 "The Power to Connect: Advancing Customer-Driven Electricity Solutions for Ontario" paper and in the follow-on report titled "A Roadmap to a Brighter Ontario" that was released in February 2018. EDA's vision of the path forward is one where LDCs actively participate in a transformed electricity market that puts customers first and maximizes the utilization and value of electricity services.

The EDA supports the drive toward increased grid modernization that will support, contribute to and enhance grid resiliency and flexibility and that will in turn provide benefits to customers (e.g., appropriate levels of reliability, the cost-effective provision of new services). The EDA recognizes that the distribution system is transforming from the provision of a 'poles and wires'

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based service to data enabled dynamic systems (e.g., that support 2 way power flows) and other technologies that will provide increased value to customers.

Question 1: **What actions should be the highest priority for the OEB?**

The EDA recommends that the deployment of 'foundational' investments be prioritized, and that deployment should commence in the near-term. As described in the EDA's "Power to Connect: A Roadmap to a Brighter Ontario", the deployment of foundational investments - the technologies capable of extracting the value captured through such technologies as:

- Advanced Metering Infrastructure
- Smart inverters
- Two-way data Flow
- Real time networking visibility
- Asset monitoring and Control
- Scheduling and Dispatch
- Active and Reactive Power Input
- Export Control
- Voltage Control
- Forecasting
- Resources Valuation
- Optimal demand response

– will benefit the end use consumer.

Many LDCs have already commenced investing in foundational infrastructure, e.g., System/Supervisory Control and Data Acquisition Systems (SCADA), Geographic Information Systems (GIS) and in the associated data. Once these foundational investments are tested, commissioned and have been entered into service, the LDC can transition to leverage these foundations through "intelligent system operations platforms" capable of automatically integrating and dispatching Distributed Energy Resources (DERs) deployed throughout the service area and connected to the distribution system. These "intelligent" solutions will yield tangible benefits for customers as improved service, lower cost or both. For example, they are expected to be able to predict and pre-empt inappropriate conditions (e.g., excess loading, reactive power conditions, voltage swings) that would, under today's systems, risk an outage. They may also allow the LDC the ability to control energy flows and/or demand levels so that

customers can continue to be served through legacy distribution infrastructure; this scenario overcomes the perceived need to renew legacy infrastructure at larger sizes capable of serving the unmanaged demand and energy flows.

The other priority action will be to clarify today's regulatory environment, so that LDCs have the tools to identify and evaluate deploying technology that will leverage these foundational investments in ways that customers' desire and that the regulator will be able to readily approve. Without this clarification LDCs incur a risk that appears to constitute a barrier to entry.

The EDA have reflected on changes that could be made to Ontario's statutory framework. Any change to the statutory framework needs to be evaluated in the context of benefits to electricity customers and other policy goals.

LDCs face many challenges as they transition their businesses. In an effort to understand areas of urgency and importance, Appendix A outlines "Challenges and Solutions" from both a holistic and practical standpoint. Appendix B examines each theme in priority; "Updates to Rules and Provisions," and "Augmented Distribution Planning" as most important, "Pricing and Rate Design" is second and "Perception of LDC Capabilities" and "Uncoordinated Centralized Procurements" are third. Appendix C proposes a timeline for implementation.

Question 2: **What interdependencies should be considered for planning and sequencing the OEB's next steps regarding further policy deployment and consultations?**

The EDA observes that the policy environment and the corresponding regulatory framework should be consistent and reflected in the enabling legislation, licenses, codes and guidance. This coordination will provide clarity and certainty that will support LDCs in bringing these innovations to customers in a way that optimizes customer benefits.

There are several initiatives currently underway or anticipated to commence in the near future that should also be incorporated; they include but are not limited to:

- the IESO's Market Renewal Program
- the IESO's "Innovation Roadmap"
- future initiatives approved through the OEB's Innovation Sandbox
- non-technology based options (e.g., the findings of the OEB's Commercial and Industrial Rate Design review, the outcome of the OEB's review of the Regulated Price Plan or other innovative commodity pricing mechanisms, pricing for different qualities of service such as interruptible or curtailable service).

Unidentified interdependencies are to be avoided as they may result in higher costs and/or lower levels of service to customers.

By participating in the IESO controlled market, LDCs may be able to use its increased visibility of the devices connected to the distribution system to achieve cost reductions or service improvements.

Question 3: **Are there any gaps or complementary areas of inquiry that need to be considered?**

As discussed in the response to question 1, the OEB should address the consistency of its regulatory instruments. The EDA supports the OEB's establishment of the "Innovation Sandbox" and foresee that it will be of assistance in identifying gaps. In addition to the Innovation Sandbox, the OEB could provide Filing Guidelines that set out the evidentiary requirements for LDCs who seek to recover the costs of the innovative technologies described herein through rates.

In closing, as discussed in the EDA's "Power to Connect: A Roadmap to a Brighter Ontario", the near-term requirement for regulatory certainty and the coordination of initiatives requires immediate investments in "foundational" infrastructure that will enable greater grid visibility and enhanced access to data. Both will enhance the LDC's ability to plan, optimize, coordinate and serve customers – and provide significant benefits.

The EDA looks forward to participating in the OEB's ongoing work on this issue. Please refer any questions or comments in the abovenamed matter to Lynn Williams, Senior Policy Advisor at lwilliams@eda-on.ca or (905) 265-5334.

Sincerely,

Teresa Sarkesian
President & CEO

APPENDIX A: "Recommended Solutions and Actions", Power to Connect, A Roadmap to a Brighter Ontario, February 2018

CHALLENGES	SOLUTIONS	
1. LEVELLING THE PLAYING FIELD FOR DERs	Amendments to Section 26 (1.1) of *Electricity Act*	Near Term
	Amendments to DSC	Near Term
2. IMPROVED DEFINITION OF DERs AND POTENTIAL SERVICES	Amendments to Section 57 of *Ontario Energy Board Act*	Near Term
	Amendments to the DSC	Near Term
3. IMPROVING DSPs THROUGH INVESTMENTS IN GRID VISIBILITY	Establishment of Advisory Committee	Near Term
	Revisions to RRFE scorecard	Medium Term
4. REMOVE RESTRICTIONS ON LDC OWNERSHIP OF RESOURCES	Amendments to Section 71 (3) of *Ontario Energy Board Act*	Near Term
5. GUIDELINES FOR RATE-BASING OF DERs AND DER-ENABLING ASSETS CONSISTENT WITH DSPs	Establishment of Advisory Committee	Medium Term
6. COORDINATING AND DECENTRALIZING PROCUREMENT OF RESOURCES AND DERs		
A) REVISIONS TO CENTRALIZED PROCUREMENTS ("LDC SUPPORT")	IESO Stakeholder Engagement	Near Term
B) DEVELOPMENT OF LDC-LED PROCUREMENT MECHANISMS	Establishment of Advisory Committee	Medium Term
7. ALLOWING LDCs TO CONTROL AND OPERATE DER ASSETS	Amendments to Section 71 (3) of *Ontario Energy Board Act*	Near Term
8. SHARED SERVICES OF LDCs WITH RESPECT TO CONTROL AND OPERATIONS	Establishment of Advisory Committee	Medium Term
9. EVENTUAL DEVELOPMENT OF LMP+D	New Market Renewal Stream (LMP+D)	Medium Term
	Amendments to Net Metering Regulation	Long Term

APPENDIX B: "Theme, Challenge/Barrier and Description," Power to Connect, A Roadmap to a Brighter Ontario, February 2018

Theme	Challenge or barrier	Description	Statutory references
1. Updates to Rules and Provisions	Rules for access to distribution system	Grid access currently grants renewables priority, with other DERs not provided the same guidance for access to the grid	*Electricity Act*, *Green Energy* and *Green Economy Act*
	Define additional DER services	Only load and generation clearly defined, and uncertainty with respect to valuing various services from DER resources	*Electricity Act*, *Ontario Energy Board Act*
	Limits with respect to distribution services	LDCs limited to providing distribution services, which does not include operations of DERs	*Ontario Energy Board Act*
2. Augmented Distribution Planning	DERs increasing complexity of DSPs	Evaluation of potential "non-wires" resource options	RRFE
	Uncertainty with respect to rate-basing DERs	No framework defined for the approval of LDC investment in DERs	RRFE
	Updates to the RRFE Scorecard	RRFE scorecard focuses on traditional LDC services	RRFE
	Uncertainty with respect to smart grid deployment	Need for guidance to facilitate investments in smart grid	RRFE
3. Uncoordinated Centralized Procurements	Limited consideration of local impacts	IESO centralized procurement does not consider LDC planning	*Electricity Act*
	No specific obligation to serve load	No requirement to plan for electricity supply within service territory	*Electricity Act, Ontario Energy Board Act*
4. Perception of LDC Capabilities	Varying structures of LDCs	Statutory framework must accommodate a variety of LDC business models and approaches	*Electricity Act, Ontario Energy Board Act*
	Coordination with and among LDCs	LDCs must coordinate planning and operations with IESO, OEB and transmitter	IRRPs, DSC, TSC
5. Pricing and Rate Design	Inefficient and non-transparent prices	Wholesale electricity prices do not value attributes of DERs	*Electricity Act*, IESO Market Rules
	Ineffective rate design	Rates are not based on efficient wholesale prices	*Ontario Energy Board Act*

APPENDIX C: "Proposed Timeline," Power to Connect, A Roadmap to a Brighter Ontario, February 2018

ACTION
Amendments to *Electricity Act* and OEBA (refer to Appendix A)
Amendments to the DSC (refer to Appendix A)
OEB criteria for grid-visibility investment
Review of potential government funding mechanisms for grid-visibility investments
OEB criteria for rate-basing DERs and DER-enabling assets
OEB criteria for shared services (e.g., control and operation)