October 18, 2019

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

Dear Ms. Kirsten Walli

RE: EDA Submission - DERs and Utility Remuneration: EB2018-0287 AND EB-2018-0288

Thank you for the opportunity to provide further comment and context into the above referenced initiatives. The local electricity distribution companies (LDCs) are a key stakeholder and needed participant in the Distributed Energy Resources (DER) market. Our role ensures an orderly and flexible integration of DERs into the electricity system supporting the current safe and reliable network that all customer have come to expect.

The Electricity Distributors Association (EDA) represent LDCs that own and operate distribution systems, the part of our electricity system that is closest to customers. Our members are on the front lines of the electricity sector and know that the most important conversations about energy happen around the kitchen table, not the boardroom table. Our customers understand the power of local hydro, and we value the relationship of trust that we have built with customers who rely on LDCs to deliver a safe, reliable, and affordable electric grid.

Our members are pleased to see the OEB engage in this important initiative and look forward to continuing to drive the safe and reliable integration of DERs into the electricity system. In addition to our original submission the responses below reflect the input of our members and the subject matter expertise of our policy Councils.

1.0 Objectives

a) Clear understanding/definition of what is included in DERs. Consistent with the IESO definition, the EDA proposes the following definition of DERs:

"DERs can include generation (e.g. small natural gas-fuelled generators) solar panels, combined heat and power plants, electricity storage, small natural gas-fuelled generators, electric vehicles and controllable loads, such as HVAC systems and electric water heaters. These resources are

Electricity Distributors Association
3700 Steeles Ave. W., Suite 1100, Vaughan, Ontario L4L 8K8 Tel/Fax 647.EDA.5300 1.877.262.8593 email@eda-on.ca www.eda-on.ca

typically smaller in scale than the traditional generation facilities that serve most of Ontario demand."[1]

Included in this definition should be technologies and/or solutions supporting energy efficiency, and future technologies and solutions that have yet to emerge. We believe that clarity of scope of DERs is paramount; this will enable the sector to move forward with appropriate rules, regulations, and foundational investments.

b) Clear understanding of 'Roles' for DER industry participants

Integration of DERs requires LDCs to partner with various entities. The following offers definitions of each potential participant including suppliers, integrators/aggregators, infrastructure owners, infrastructure operators, and planners.

i) Suppliers – includes DER technology, software, and other products sold to customers

ii) Integrators and Aggregators – companies that bring together various suppliers to one or more customers

iii) Infrastructure owners – those who own the backbone that connects and interconnects the DER systems

iv) Infrastructure operators – those who control the flow of energy between the DER systems and the grid

v) Planners – those who assemble plans for the flow of energy over the course of time (1 yr., 5yr, 20yr etc.). These planners start at the local level (i.e. LDC), then feed into a regional/municipal planning process, which ultimately connects to a larger provincial plan (i.e. IESO). As DERs require integration at a local and system level, it is essential for planning to be bottom-up starting at the load and moving upstream. Otherwise, a top-down approach will limit flexibility and potentially cause unexpected consequences. There is a need to coordinate planning in a transparent manner that prioritizes the local resources and enables a clear understanding of the upstream and downstream impact to the system.

vi) Standards and Safety Bodies – coordination among organizations that have, or will create, necessary standards and procedures to ensure the safe and reliable installation and operation of DER systems. Such bodies include Canadian Standards Association, Electrical Safety Authority, Institute of Electrical and Electronics Engineers, and the Electrical Power Research Institute.

c) Establish appropriate remuneration for regulated entities.

It is conceivable that each role will have a different remuneration mechanism based on the need-risk-reward model. For instance, foundational investments will need to be provided by

[1] http://www.ieso.ca/en/Learn/Ontario-Power-System/A-Smarter-Grid/Distributed-Energy-Resources

the LDCs to enable the long-term viability of DERs in the local area. 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 - capable of extracting the value captured through such technologies as advanced metering infrastructure, smart inverters, asset monitoring and control, two-way data flow, forecasting and scheduling and dispatch. This investment should be remunerated based on the risk profile taken by the LDC in providing the service. An incentive model may be best suited to such investments as the timing certainty of DERs connecting to the foundational investments may create a higher risk profile. Other roles, such as suppliers may be supported through more market-based incentives.

The EDA recommends that the OEB leverage the current suite of remuneration mechanisms, where practical, such as rate design, asset classes, and other enabling tools. These are "proven" mechanisms that, when implemented, can potentially provide a level of certainty and predictability.

d) Establish protocols to assess DER infrastructure needs and create value mechanisms to offset traditional 'wires' business.

There is value attributable to DERs if well-planned and well-integrated into the electricity system. If planned appropriately, the benefit flows to the customer, the local grid, the regional system, and the provincial energy network. The value stream can be created once the necessary foundational investments are locally available to DER participants.

The beneficiaries of the DER resources should compensate those who need to make improvements to their systems. This is a complex matter as impacts can be local, regional and occasionally at the provincial level. Without the beneficiaries paying an appropriate share, the costs would need to be socialized amongst other ratepayers. There may also be a requirement to establish a "future value" formula recognizing that the payback on DERs may only be realized as a cost or capital avoidance measure.

2.0 Principles to guide the development of DER initiatives

a) Customers' incremental utility costs reflect incremental value increase, limiting short-term cost increases.

Electricity consumers need to have an affordable electricity system that is also reliable and safe. Finding an appropriate balance between costs recovered from DER participants and cost borne by all ratepayers should reflect the value received by each. The EDA also recommends that LDCs be permitted to make foundational investments in the necessary DER infrastructure that provides a reasonable return yet minimizes additional short-term costs to their customers. This may require amortizing costs over a longer-term in order to ensure a stable, reliable, flexible DER market today and into the future. There may also be a requirement to establish a "future value" formula recognizing that the payback on DERs may only be realized as a cost or capital avoidance measure.

Furthermore, efforts should be made to utilize existing infrastructure and avoid the stranding of assets where it makes economic sense to do so. Significant ratepayer funds have been invested in the existing infrastructure, and these assets can be optimized further with appropriate DER integration.

b) DER assets must be planned and managed to complement or improve local, regional, and provincial system reliability and safety.

Ontarians have enjoyed a safe and reliable electricity system and that principle should never be compromised. The LDCs work tirelessly to ensure the distribution system continues to meet the needs of its customers. There is a continued requirement for grid visibility enabling LDCs to see the upstream and downstream impacts of connecting customer and suppliers DER systems.

As partners, DER developers (suppliers, aggregators, integrators, and customers) will be required to disclose their plans as they add their technology onto the existing distribution system. This will require confidentiality and anonymity procedures to be developed for commercially sensitive applications.

Further, the EDA encourages the OEB to work with, and leverage standards of, safety bodies' rules and practices to ensure safety and reliability.

c) Innovation by all industry participants should be encouraged.

A well-planned system will provide transparency on locations/regions where DERs provide the highest value to the system. This is where innovation and growth should be focused. While DER systems and solutions can be beneficial to consumers, not all DERs will provide value at all system connection points.

d) Flexibility for future DER technology integration

To create flexible opportunity for customers and suppliers to integrate DERs, the LDCs will require foundational investments in the local distribution system. As previously noted, this may need to be amortized over the longer term in order to enable DER integration.

3.0 Problems or Issues to be addressed by the initiatives

a) Local system planning needs visibility into new DER assets locally and upstream.

Currently there is little visibility across regions on current and future DERs. The electricity system is interconnected and depends on the interaction of local and regional systems. Having an understanding of the upstream impacts will assist LDCs to effectively integrate local DERs. Local planning processes need to encourage DER developers (suppliers, aggregators, integrators, and customers) to disclose their intentions to add or modify DER systems.

b) Regulatory uncertainty when valuing non-wires resource options

Enabling infrastructure needs to be developed and valued for its long-term benefits. Foundational investments may need to be amortized over a longer term in order to enable valuable DER today and into the future.

c) Rate design needs to include LDCs' important role in DER

Clarity is required to be established for 'common use' and 'single use' of DER applications impact on rate designs. Creating certainty will enable LDCs to innovate in terms of integrating DERs.

d) Agencies and distribution companies need to have coordinated and transparent planning.

Multiple bodies are planning systems with limited transparency between agencies (e.g. individual LDCs, IESO, and bulk transmitter). A clear, anonymized system needs to be created to allow for effective, unbiased flow of information between bodies. This includes the commercially sensitive information received by the LDC from its customers and DER suppliers.

The EDA looks forward to continuing to engage with the OEB and supporting the consultation on both supporting LDC submission to the EB-2018-0287 and EB-2018-0288 files. 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

Original signed by

Ted Wigdor
Vice President, Policy, Government & Corporate Affairs