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March 20, 2020

Ms. Kirsten Walli
Ontario Energy Board
PO Box 2319
27th Floor, 2300 Yonge Street
Toronto, Ontario M4P 1E4

Re: Utility Remuneration (EB-2018-0287) & Responding to Distributed Energy Resources ("DERs") (EB-2018-0288): Comments Following September Stakeholder Session

Dear Ms. Walli,

On February 20, 2020, the Ontario Energy Board (the "Board") held a stakeholder session to receive input on a Board Staff presentation refining the feedback and views arising from the fall 2019 consultation and submissions. In announcing the February stakeholder session in its letter of January 21, 2020, the Board made provision for written comments from stakeholders.

Entegrus Powerlines Inc. ("Entegrus") participated in the fall 2019 consultation and submissions, as well as the February 20th Board stakeholder session. Entegrus appreciates the opportunity to provide additional commentary.

Different Types of DERs

In the most recent consultation discussion, Board Staff presented a clarifying working definition of DERs as follows:

> *"A DER is any resource capable of providing energy services located at the distribution system level (in front or behind the meter)*
>
> - *Distribution level generation and storage are DERs*
> - *A controllable load can be a DER when it offers a service by committing in advance to adjust consumption in response to system needs at a specific time or location*
> - *Energy efficiency does not have the same characteristics (e.g. system impacts) as DERs but may be relevant to specific issues and should be considered"*

What became clear to Entegrus from stakeholder dialogue is that any regulation changes around DERs will need to distinguish between two types of DERs:

- Type 1: DERs implemented directly by customers (i.e. behind the meter)
- Type 2: DERs implemented on a broader distribution system basis by utilities (i.e. in front of the meter)

In the context of DER regulation, there was significant discussion around the concepts of penalties and incentives (or "carrots" and "sticks")[1]. If DER regulation is to contain both "carrots" and "sticks", the differences between Type 1 and Type 2 DERs (as described above) will need to be acknowledged.

DER capacity in the Entegrus service territory (solar, CHP, biogas, gas generation, battery storage) continues to grow and is approaching 20% of peak load. The majority of these DERs fall under Type 1 above (DERs implemented "behind the meter" by customers).

It should be recognized that Type 1 DER investments require significant coordination between the customer and the utility. Additional DERs on the same transmission station incrementally increases the fault risk. Only so many layers of fault protection can be successfully added. Entegrus can provide additional examples of the above-noted challenges to assist the Board in future submission as needed. Entegrus recommends that the Board seek such situational examples from Entegrus and other utilities before proceeding to issue regulation.

The Regulatory Framework and Utility Renumeration

Entegrus appreciated that the Board Staff presentation provided a preliminary scope in terms of the meaning of the terminology "utility remuneration", as follows:

> *"The Utility Remuneration initiative should explore:*
>
> - *Determination of revenue requirement (assessment of efficient expenditure levels and reasonable return)*
> - *Activities that attract a return for utilities*
> - *Use of specific performance incentives (rewards and penalties tied to achievement of specific objectives)*
> - *Managing and sharing risk (e.g. earning sharing, variance accounts etc.)*
> - *Treatment of non-utility activities within the regulated utility (e.g. legislative restrictions/exemptions on business activities)*
> - *Tools the regulator can develop/employ to support the above"*

In terms of the current regulatory framework, Board Staff further noted at the stakeholder session:

> *"That is not saying everything we're doing well is working perfectly, but that what we're doing now, regardless of how well it is working, may not continue to work as well in the future as things change and as more DERs are adopted and customer behaviour changes."*[2]

Entegrus submits that an incremental approach to change best addresses the above-described scenario.

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[1] OEB EB-2018-0287/0288 Stakeholder Meeting Transcript, Garner (VECC), Robson (Board Staff) & Anderson (Board Staff), page 113, line 23 thru page 115, line 25

[2] OEB EB-2018-0287/0288 Stakeholder Meeting Transcript, Anderson (Board Staff), page 118, lines 10-14

A stakeholder participant noted that stakeholder proposals in this area ranged from “incremental change” to “reshape the world”[3]. Entegrus reiterates that any model to encourage DER investment should avoid “reshaping the world”, which would create regulatory uncertainty and concern from industry financial stakeholders, including banks and rating agencies. The current regulatory model evolved over many years from foundational regulatory principles. DER investment should be encouraged in an incremental manner using incentives, in order to avoid knock-on effects. This is best accomplished through incenting utility DER pilot programs in partnership with DER suppliers, similar to the California DER practice.

Balancing DER Benefits with the Physics of Power

In attending the consultations and reviewing the associated materials and submissions, Entegrus continues to hear aggressive advocacy for the DERs from certain stakeholder groups. Entegrus also heard consumer advocates speak to the need for a balance between DER implementation and reliability.[4]

Entegrus sees strong advantages in the scalability of prudent DER investments, particularly where the opportunity exists to right-size incremental capacity investments versus more traditional “poles and wires” investments. However, some aggressive DER proponents seem to seek a more rapid provincial-wide deployment of DERs. These proponents criticize utilities as prohibitive to innovative DER investment, citing a traditional utility capital spending focus or a lack of system planning information sharing. These parties also seem anxious to delineate who can compete, and who cannot compete, in terms of Ontario DER product sales and implementation. The tone of the commentary suggests that if utilities would just get out of the way, suppliers could proliferate the province with DER technology and solve many societal challenges.

What aggressive DER proponents do not focus on is on the physics of electrical power. Specifically, there is little acknowledgement of system constraints that prohibit immediate DER implementation in certain areas of the province. However, the continued growth of two-way flow on the system necessitates that safety and reliability be the foremost guiding principle in this initiative.

Entegrus reiterates that regional siting constraints cannot be ignored in establishing DER regulation. There are clearly “red zones” in the province where DERs cannot be connected because of capacity constraints; this often relates to a high degree of pre-existing connected generation at a transmission station. The conundrum is that unlocking DER capacity in “red zone” areas may first require traditional, 40-year transmission investments of significantly higher cost than the contemplated scalable DER investment itself. Further, as DERs become even more prevalent in the system and additional constraints appear, the availability of suitable alternative routes of supply becomes increasingly intricate and fewer options exist.

So despite best intentions, the physics of electrical power and good utility practice may constrain certain desired DER projects from happening. Once again, if there are to be both “carrots” and “sticks” in the regulation that arises from this consultation, the “red zone” dynamic needs to be acknowledged. Utilities clearly will not receive “carrots” when a “red zone” prohibits a DER projects, but the utility also should not

[3] OEB EB-2018-0287/0288 Stakeholder Meeting Transcript, Mondrow (IGUA), page 136, lines 7-15
[4] OEB EB-2018-0287/0288 Stakeholder Meeting Transcript, Ladanyi (Energy Probe), page 73, line 28 thru page 74, lines 1-14

be hit by a “stick” when this occurs. Entegrus reiterates that to better inform this initiative, the OEB should request and publish a map of such “red zones” from the IESO.

All of which is respectfully submitted,

[Original signed by]

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