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October 18, 2019

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 (EB-2018-0288): Comments Following September Stakeholder Session

Dear Ms. Walli,

On September 17-19, 2019, the Ontario Energy Board (the "Board") held a stakeholder session to receive input on the objectives, issues and guiding principles for the above-noted policy initiatives/consultations. Subsequently, in its letter of September 26, 2019, the Board made provision for written comments from stakeholders.

Entegrus Powerlines Inc. ("Entegrus") participated in the stakeholder session and appreciates the opportunity to provide general views, as well as more specific comments on: objectives, guiding principles and challenges.

General

Distributed energy resources ("DERs") are already here and are a critical input to utility system planning. DER capacity in the Entegrus service territory continues to grow is currently equivalent to 18% of peak load. Examples of DERs connected to the Entegrus distribution system include: solar (residential and industrial), CHP, biogas, gas generation and batteries.

It is important to recognize that DERs are evolving technologies still in an early life stage. This has cost and implementation implications that need to be acknowledged and planned for.

Objectives

It was apparent at the consultation that there are differing stakeholder views on the definition of DERs. Some participants were proponents of including conservation in the definition, while others wondered if an islanded customer who "failed over" to the system (but did not inject into the system) should be included. Accordingly, Entegrus recommends that the initiative should establish a clear definition of DERs. Another recommended foundational measure is to establish clear roles for industry players, such as suppliers, transmitters and distributors.

A key objective should be to create more regulatory certainty around the treatment of utility DER investments. Entegrus sees strong benefit in the scalability of DERs and the ability to right-size incremental capacity investments. Hypothetically, there should be as much, or more, regulatory certainty around a technically sound $5M DER investment that mitigates the need for a traditional $30M station investment, than for the station investment itself.

Guiding Principles

First, broader DER implementation in Ontario requires appropriate consideration to system integrity. The continued growth of two-way flow on the system necessitates that safety and reliability be the foremost guiding principle in this initiative.

Secondly, any model to encourage DER investment should avoid the route of rate design "do-over", which would create regulatory uncertainty and concern from industry financial stakeholders. Rather, DER investment should be encouraged in an incremental manner using incentives, in order to avoid unforeseen consequences. This may be best accomplished through the encouragement of utility DER pilot programs in partnership with DER suppliers, like the current California DER practice. Any associated adjustments to rate design should be carefully reviewed in conjunction with the existing Commercial & Industrial Rate Design Consultation (EB-2015-0043).

Challenges

Entegrus is supportive of innovative DER projects and is particularly interested in their ability to offer scalable distribution benefits which avoid or defer larger system investments.

However, the DER "red zones" in the province need to be acknowledged. "Red zones" were a recurring and published constraint during the FIT initiative and remain so today. These situations occur where DERs cannot be connected to the system due to existing transmission capacity or fault level conditions. In Southwestern Ontario, Entegrus is aware of the likelihood that multiple stations upstream of its service territory that are constrained from additional large DER connections because the existing connected generation is already at, or near, the allowable DER threshold (e.g. 60%) in terms of the transmitter's station load capacity. As an embedded distributor, Entegrus appreciates that such a threshold mitigates fault conditions and ensures safety and reliability. However, embedded distributors do not necessarily have full visibility or clarity into remaining DER capacity at a station and need greater clarity on such when engaging with customers contemplating DER investments. Entegrus submits that to better inform this initiative, the OEB should request a map of such "red zones" from the IESO. System constraints cannot be ignored in the siting conditions of DERs.

The conundrum is that unlocking DER capacity in "red zone" areas may require traditional, 40-year transmission investments of significantly higher cost than the contemplated scalable DER investment itself. In such case, who pays for the necessary expensive traditional investment? Prohibitive costs will result in customers in certain regions of the province potentially not being able to access DER opportunities and

advantages. This may be the right decision to ensure the efficiency of the Ontario electricity system, but it is important to recognize that some customers will have more opportunity than others to participate in DERs.

Lastly, it must also be acknowledged that transmission infrastructure failures, as well as normal scheduled operational maintenance, can force DERs off-line. This can be the case when re-routing to an alternate source of supply is not possible due to the aforementioned "red zone" constraints. This can also occur when potential alternative supply source routes lack the specifically tailored protection and control mechanisms of the primary route. And as DERs become even more prevalent in the system, the availability of suitable alternative routes of supply becomes increasingly intricate and fewer options exist. This will lead to DERs being off-line for longer periods of time in the event of supplier source equipment failure or maintenance.

Entegrus reiterates its support of innovative DER projects and encourages a measured, incremental approach to broader DER implementation in Ontario.

All of which is respectfully submitted,

[Original signed by]

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