Elson Advocacy

September 15, 2021

Ms. Christine Long
Registrar
Ontario Energy Board
2300 Yonge Street, 27th Floor
Toronto, Ontario M4P 1E4

Dear Ms. Long:

Re: Proposed Amendments to the Distribution System Code to Facilitate Connection of Distributed Energy Resources
EB-2021-0117

I am writing on behalf of Environmental Defence to provide submissions on the proposed amendments to the Distribution System Code ("DSC") aimed at facilitating the connection of Distributed Energy Resources ("DERs"). Environmental Defence strongly supports the Ontario Energy Board's ("OEB") efforts to facilitate the connection of DERs as they have a great potential to lower overall electricity costs, including generation, transmission, and distribution costs. With respect to the proposed amendments, Environmental Defence requests that the OEB:

1. Create a streamlined connection process or narrowed exemption for load displacement generation/storage before the current exemption in s. 6.2.1 is removed;

2. Remove the assumption of zero avoided costs for capital cost contribution calculations for DERs set out in s. 3.2.5 of the DSC;

3. Remove references to +-50% cost estimates in the DERCP, subject to the ongoing work by the DER Connections Working Group on improving cost estimates;

4. Create an explicit consultation procedure for significant amendments to the Distributed Energy Resources Connections Procedures ("DERCP");

In addition, we strongly support continued efforts by the OEB to facilitate DER connections. The proposed amendments are a good first step and will enable additional steps by moving the connection procedures into a separate document outside of the DSC. However, we believe much more work is needed and we respectfully request that this work continue both at the DER Connections Working Group and after that working group has achieved what it can achieve with its specific structure and decision-making model.

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Load Displacement Generation

A proposal has been made to remove the existing load displacement generation exemption found in s. 6.2.1 of the DSC. Environmental Defence requests that this exemption be maintained until a streamlined connection process and/or narrowed exemption for load displacement generation is created. If this is not done, the amendments could run counter to the goals of this process and add an unnecessary barrier to certain DER connections. This is critically important both for distributors and customers because load displacement generation could grow exponentially with bi-directional electric vehicle charging.

For distributors, removing this exemption could result in an onerous mandatory requirement to respond to millions of load displacement connection requests. That is because the proposed amendment to s. 6.2.1 would *require* distributors to follow the DERCP even for behind-the-meter and non-exporting storage devices, including bi-directional electric vehicle chargers.[1] Electric vehicles are increasingly being marketed as bi-directional storage devices, such as the new Ford F150 Lightning.[2] Under the proposed changes, each one would require a micro-generation connection assessment and agreement because they would be considered to be a "generation facility" and would no longer be eligible for the load displacement exemption.[3] As this technology expands, this could result in millions of connection requests seeing as there are 9 million cars in Ontario.[4] Requiring all load displacement generation to follow the standard connection process could result in a massive amount of work for distributors.

For customers, removing the exemption would create an unnecessary barrier to installing bi-directional electric vehicle chargers. These chargers can displace a building's load at the time of system peak using a pre-existing car battery. Once Ontario's 9 million cars are electrified, the potential capacity to use this to cost-effectively reduce customer costs and total system costs is huge. Adding a new additional mandatory requirement for these kinds of connections is inconsistent with the goal of facilitating DER connections.

Furthermore, bi-directional electric vehicle charges are only one example. There are a number of other load displacement use cases that would be impacted by an inflexible requirement that the standard connection process be followed every time.

We understand that load displacement generation can have distribution system impacts. However, that does not mean the DSC should make the connection process mandatory for each and every load displacement generation facility. As it stands now, distributors can decide whether a load displacement facility needs to follow the standard connection process. There is no pressing need to change this at this time. Therefore, we ask that s. 6.2.1 be maintained as-is for now and that work be expedited to develop a streamlined process and/or narrowed exemption for small-scale load displacement generation.

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[1] As noted on page 7 the draft DERCP: "Throughout the DERCP the term 'generating facility' applies to the discharge mode of a storage facility."
[2] See https://www.ford.ca/trucks/f150/f150-lightning/2022/.
[3] See footnote 1 above.
[4] Statistics Canada (link).

Cost Responsibility

A new section is being proposed for the DSC that would clarify that the cost responsibility rules set out in chapter 3 of the DSC apply to DERs. We ask that a small but important amendment be made to s. 3.2.5 in conjunction with this proposed change. Section 3.2.5 states that revenue and avoided costs are assumed to be zero when capital cost contributions are calculated for generator connection requests. This made a great deal of sense in the past. But it no longer makes sense today because it disregards the fact that DERs can act as non-wire alternatives and result in significant avoided costs (in some cases). It also disregards the fact that a storage device will create revenue when it is in charging mode. We therefore ask that s. 3.2.5 be amended so it no longer precludes the inclusion of appropriately calculated revenue and avoided costs for capital contributions for DERs.

Cost Estimates

The draft DERCP refers to distributor connection cost estimates typically having a certainty of +/- 50%. We ask that these references be removed for the following reasons:

1. Uncertain cost estimates in the range of +/- 50% have been specifically raised as a concern from customers and are an issue on the agenda to be considered by the DER Connections Working Group;

2. Some distributors are able to provide initial estimates with significantly more certainty than +/- 50%;

3. Reference to +/- 50% cost estimates could potentially be taken by some as condoning that level of uncertainty and discouraging efforts to do better;

4. This is new. There was no such reference in Appendix F to the DSC.

5. The reference to +/- 50% is not needed. The relevant section of the DERCP could simply state that the distributor will provide an initial cost estimate and that customers can pay for a firmer estimate if they wish.

This is an active topic under discussion at the DER Connections Working Group. We ask that the reference to +/- 50% be excluded until that discussion is complete.

DERCP Amendment Process

Environmental Defence supports the proposal to move the connections procedures out of the DSC and into a separate procedure (i.e. the DERCP). However, we ask that a consultation process be included in the DERCP that involves notification to interested parties and an opportunity to comment. This does not need to be as involved as the DSC amendment consultation process. However, some form of consultation would assist the OEB by ensuring that it has heard the perspective of various stakeholders.

Next Steps

The proposals put forward in this tranche are a positive step forward. However, more work is needed to explore additional steps, including steps taken in other jurisdictions to improve the DER connection process. The list of those potential additional steps is long and includes, for example, automated capacity assessment tools, fast-track processes, enhanced dispute resolution, improved cost consistency, shortened timelines, and so on.[5] We hope that the positive work to assess these other steps continues.

In addition, we hope the work continues after the DER Connections Working Group has completed its mandate. That working group has many benefits. However, it operates on a decision-making model whereby changes to the status quo require buy-in from all stakeholders. This creates a bias in favour of the status quo and against change. A subsequent process with a different decision-making model could achieve additional progress on additional items.

We thank the OEB for the opportunity to make these comments.

Yours truly,

Kent Elson

cc: Participants in the above proceeding

[5] For other examples see NREL, *An Overview of Distributed Energy Resource (DER) Interconnection: Current Practices and Emerging Solutions* (link); RAP, *Interconnection of Distributed Generation to Utility Systems* (link).