September 16, 2021

Ms. Christine E. Long
Registrar
Ontario Energy Board
2300 Yonge St., Suite 2700
Toronto, ON, M4P 1E4

Dear Ms. Long:

Re: Notice of Proposal to Amend a Code: Proposed Amendments to the Distribution System Code (DSC) to Facilitate Connection of Distributed Energy Resources (DERs) (EB-2021-0117)

On August 6, 2021, the OEB issued a Notice of Proposal to Amend the DSC regarding the connection of DERs to local electricity distribution systems. The OEB noted that the proposed amendments were developed based on input from the OEB's DER Connection Review Working Group (Working Group) and are intended to improve timelines and provide clarity and consistency in the connection process for DERs.

The Coalition of Large Distributors (CLD) is pleased to offer comments on this important file. The CLD consists of Alectra Utilities Corporation, Elexicon Energy Inc., Hydro One Networks Inc., Hydro Ottawa Limited, and Toronto Hydro-Electric System Limited. Together, CLD members represent over 3.6 million, or approximately 70% of Ontario's electricity consumers. CLD members actively work with customers to enable DER connections, while managing the impacts on the electricity system. A material amount of the DERs currently connected in Ontario are connected to the grids of CLD members.

CLD members commend the OEB for its continued work with the Working Group to identify and address barriers to DER connections and standardize and improve the connection process. The proposed DSC amendments are a result of a productive and collaborative effort with utilities, developers and other stakeholders through the Working Group, and build naturally from the industry-led work of the Ontario Energy Association (OEA) task force, which included CLD members, that preceded the OEB's consultation.

Ontario's connection process continues to represent industry best practices, especially among large distributors in Ontario. As confirmed by the work of the OEA task force, connection rules in Ontario are favourable when compared to many other jurisdictions (e.g., California Rule 21)[1]. As a result, the proposed DSC amendments are not an overhaul, rather they will ensure that Ontario keeps pace with the evolution of DER technologies, and will benefit customers, developers, and utilities.

[1] OEA September 16, 2019 Submission *DER Connection Review: EB-2019-0207*

A. SUMMARY OF KEY MESSAGES & RECOMMENDATIONS

The CLD recognizes the important role electricity distributors play in supporting the successful implementation of DERs. As noted above, CLD members are pleased with the OEB's work on this file and the effective use of the Working Group to identify opportunities to improve and clarify the DER connection process for utilities, developers and customers.

CLD members are supportive of the proposed amendments to the DSC and the creation of the Distributed Energy Resources Connection Process (DERCP) document. The proposed amendments reflect the outcomes of the Working Group, and CLD members agree that these changes will result in improvements for both customers and utilities. The main improvements resulting from the proposed amendments are cleaner and clearer DSC obligations (for both customers and utilities), and the standardization of processes and forms across the province. While many utilities will be required to make changes to their business processes, CLD members believe that these changes will be neither extensive nor prohibitive.

CLD members also support the new connection paradigm that classifies connections as either exporting or non-exporting, as it will help differentiate between legacy Feed-in-Tariff projects and load displacement projects. Further, the new paradigm considers energy storage facilities, which will provide much needed guidance and clarity for customers and utilities as storage facilities continue to proliferate in the province.

CLD members have developed a number of proposals and comments that are intended to help improve the effectiveness of the proposed DSC amendments and mitigate any potential misunderstanding of the intended outcomes of the amendments. These comments are outlined in the next section of the document, Section B, and are organized under the following headings:

- Definitions
- Restricted Feeders List
- Standardization of Forms, Processes and Timelines
- DERCP Amendment Process
- Cost Responsibility
- Other

B. COMMENTS

Definitions:

CLD members are generally supportive of the proposed changes and additions to the definitions list. The existing definitions in the DSC do not consider or are not clear on the applicability of the DSC for storage facilities, emergency backup generation facilities, and load displacement facilities. The new/revised definitions address these concerns.

Outlined below are the CLD's proposed changes to the definitions that are intended to further improve clarity, organized by definition.

Storage Facility:

The OEB's proposed definition of a Storage Facility is "a facility that is connected to a Transmission or Distribution System" and is capable of storing energy withdrawn from the system and "then re-injecting only such energy back into the Transmission or Distribution System." Based on this definition, a storage facility connected behind the customer meter would not be included in this term, as a behind the meter storage facility is not connected to the grid and it may not inject energy back into the grid. Therefore, the current proposed definition creates a regulatory gap in terms of how to treat behind the meter storage facilities.

CLD members recommend that the definition of a Storage Facility should be revised such that it is agnostic to the connection point of the facility. This would align with the proposed definition of a "DER", which is intended to include DERs connected in-front of and behind the meter.

Distributed Energy Resources (DERs):

The OEB has provided a new, broader definition of 'DER' in the DSC amendments. CLD members recommend that the OEB make full use of this new defined term by replacing instances of 'generation facility' with 'DER' throughout the DSC and DERCP, where appropriate. This change will more clearly define the applicability of the DSC and DERCP to a broader range of technology types captured under the DER definition. For example:

- In Section 6.2 of the DSC, refers to 'generation facility' rather than 'DER', which could create ambiguity as to whether the requirements in Section 6.2 are intended to apply to all DERs.

- On page 7 of the DERCP, the term 'generation facility' is further defined in order to apply to "the discharge mode of a storage facility". Instead, CLD members recommend that the term 'DER' is used in this instance, as the definition of DER includes energy storage facilities.

- In Section 1.2 of the DSC, the definition of "Restricted Feeder" refers to "any feeder owned by the distributor that has zero capacity for connection of generation facilities…" CLD members recommend using the term DER instead to ensure that the restricted feeder list is comprehensive and useful to potential DER proponents.

- In Section 6.2.31 of the DSC, the amendments include a new requirement to indicate that the provisions in Chapter 3 of the DSC are applicable to all 'generation' and 'storage facilities' but does not clarify the applicability of Chapter 3 to other types of DERs (e.g. behind the meter load displacement). CLD members recommend that this be simplified by instead stating that the provisions in Chapter 3 apply to all 'DERs' to clarify that the rules are applicable to all DERs, including behind the meter facilities. Alternatively, the Board could explicitly state that the provisions of Chapter 3 apply to all “embedded generation facilities”[2] and “storage facilities” to ensure that all DERs, in front and behind the meter, are captured.

In addition, CLD members recommend that the term DER should have a stand-alone definition in Section 1.2 of the DSC instead of being embedded in the definition for the DERCP. This would simplify the DERCP definition and ensure clarity on the term DER throughout the DSC and DERCP.

Emergency Backup Generation:
CLD members recommend that the Board add a provision to the DSC (as part of Section 6.2.1) stating that the connection process and requirements for an emergency backup generator shall be established by the distributor and specified in the distributor’s Conditions of Service. This would provide distributors with the flexibility needed to effectively manage their systems.

Restricted Feeder List:

CLD members are supportive of the OEB’s proposal to publicly provide a restricted feeder list so that proponents can identify if projects being explored are on feeders that cannot accommodate more DER connections.

The OEB has proposed that the list be updated at least every 3 months and, while CLD members can accommodate this frequency, there is a preference for the list to be updated at least every 6 months to reduce administrative burden while still ensuring the utility of the list to proponents.

CLD members also note that it may take some time for distributors that do not currently maintain such a list to establish a new tool to meet this requirement. CLD members recommend that the OEB work with distributors through the DER Connections Process Working Group to understand the potential range of implementation timelines in order to determine if the OEB should provide flexibility for implementation after the amendments come into force.

The OEB’s proposed definition of a restricted feeder is “any feeder owned by the distributor that has zero capacity for connection of generation facilities even if the constraint is caused by an upstream asset that it does not own.” CLD members note that there are a wide variety of reasons that a feeder could be restricted and unable to accommodate additional DER connections and thus are supportive of this broad definition. However, in Section 6.2.3(g) the proposed amendments indicate that the restricted feeder list should include those feeders that have reached their short circuit capacity. Given there are a variety of factors that could cause a feeder to become restricted (e.g. thermal limits) the CLD recommends that the OEB permit (but not require) utilities to provide a list based on multiple restrictions beyond just short circuit capacity, if

[2] The DSC definition for “embedded generation facility” (and the extended meaning through Section 1.9 of DSC) covers generation facilities connected behind the customer meter, regardless of whether they are exporting or non-exporting.

such information is readily available. Accordingly, the CLD suggests the following addition (in italics and underline) to section 6.2.3(g); "A list of 'restricted feeders' by name and feeder designation that the distributor operates that are known not to have any short circuit capacity to accommodate a distributed energy resource connection. The list *<u>may incorporate other restrictions known to the distributor</u>*<u>, and</u> must be updated as necessary to capture system reconfiguration or expansions…"

In addition, CLD members note that distributors generally do not allow a feeder's capacity to reach zero at any point due to safety and reliability concerns. As a result, CLD members request the OEB consider revising the definition to reflect this. For example, "any feeder owned by the distributor that has <u>no additional</u> ~~zero~~ capacity for connection of generation facilities…"

Standardization of Forms, Processes and Timelines:

CLD members are supportive of the efforts to standardize forms, process and timelines, as well as allowing LDCs the option of using custom forms that satisfy the standardized criteria. The proposed Preliminary Consultation template forms will assist LDCs in reviewing proposed generation applications and in responding to customers. Similarly, a standardized form for the Connection Impact Assessment (CIA) process should assist LDCs and customers.

Section 4.3.1 of the DERCP outlines a process for a distributor to modify the standardized Preliminary Consultation Information Request form, specifically that a distributor would advise the OEB of the 'proposed changes'. In order to ensure regulatory efficiency, CLD members recommend that the word "proposed" be removed so that the OEB would be informed of changes but would not need to provide formal approval of any changes. If the OEB believed that a custom form was not compliant with DERCP or DSC the OEB would, in its normal capacity, advise the distributor of the need for changes.

CLD members further note that the option of offering a custom form should be extended to all forms, not only the Preliminary Consultation Information request form. The CLD suggests that modified section 4.3.1 should be applied to all forms noted in the DERCP.

CLD members are supportive of the concept of adding a CIA Screening Process step to provide an early check on the completeness of CIA applications. Past experience has shown it is not uncommon for LDCs to spend time during the CIA timeframe correcting or clarifying information collected from applicants, which can impact a LDC's ability to deliver the CIA within the prescribed timelines. Establishing a CIA Screening Process ensures that when the CIA process begins, distributors are reviewing a complete application. The Screening Process also rewards applicants who provide complete applications as it can allow these applicants to move ahead of an applicant who submits a poor quality application.

CIA Timelines

CLD members are supportive of including timelines for the processing of CIA assessments as this issue had been raised by distributors in the Working Group. Further, the proposed amendments that clarify the studies can be done in parallel is expected to enable shorter total timelines.

The proposed DSC amendments indicate that a connecting distributor is permitted up to 15 days to prepare and submit a CIA application to a host distributor and transmitter. The result of this proposed amendment is that a host distributor would only have 45 or 75 days to complete the CIA to comply with the 60 or 90 day prescribed timelines, respectively.

CLD members note that where a host distributor CIA is required, the host distributor should be allotted the full 60 or 90 days after receiving the submission from the connecting distributor in order to provide sufficient time to complete the assessment. In addition, 5 days should be provided for collaboration with host distributors and transmitters to ensure that all necessary information is shared and any questions between the involved utilities are resolved.

Therefore, CLD members recommend that the timeline for the CIA assessment be 80 or 110 days, where a host-distributor needs to perform a CIA. Without this change, CLD members are concerned that unreasonable risk will be introduced for distributors and transmitters that will not be able to comply with the timelines in the DSC.

Detailed Cost Estimate

The proposed amendments allow for a proponent to request, at their own cost, a more detailed cost estimate that reduces the uncertainty from +/-50% to +/-25% prior to determining if they will proceed with a Connection Cost Agreement (CCA). CLD members note that there are many factors that would determine the ability to improve the certainty of a cost estimate, including the time allotted to develop the project design.

The DSC amendments indicate that, for a typical small DER connection project, a CIA must be provided within 60 days and the CCA must be entered into within 6 months of the application date. In a best case scenario, if a proponent requests a detailed cost estimate immediately following the receipt of the CIA, the distributor would have at most 90 days to deliver the detailed cost estimate, including the time required to coordinate estimate details with a host distributor and transmitter. This is due to the fact that at least 30 days is needed to allow for the distributor to prepare the CCA / scope of work and for the proponent to secure project financing prior to executing the CCA. In most cases, it is unlikely the proponent will request the detailed cost estimate the same day they receive the CIA, further reducing the time allowed for the distributor to conduct the assessment.

Based on the experience of CLD members and the volume of applications that distributors process, 90 days may not provide sufficient time to guarantee the ability to develop a detailed cost estimate to the degree of certainty required (i.e. +/-25%), depending on the connection and especially if coordination with a host distributor and/or transmitter is required.

CLD members strongly recommend further discussion at the Working Group, or sub-Working Group level in order to determine how much time a distributor would be expected to spend on preparing a more detailed estimate and what improvement in accuracy could be developed. CLD members also believe that the option to receive a more detailed estimate should have some criteria (e.g. the initial cost estimate is above a certain threshold) regardless of the type of project connection.

Finally, CLD members recommend that the DSC be consistent in how it refers to timelines and processes for DER connections to ensure clarity. Currently, there are instances where the DSC amendments refer to the DERCP (e.g. section 6.2.12, section 6.2.23) as well as instances where the timelines and processes are outlined in the DSC (e.g. section 6.2.13).

DERCP Amendment Process:

CLD members agree with and are supportive of the OEB creating a DERCP process document to outline and standardize the DER connection process, as this type of document can more nimbly be amended to address technology and sector changes. This would also enable the OEB to provide more flexibility to distributors and proponents as DERs play a greater role in the distribution system.

CLD members are seeking clarity on the governance and amendment process for DERCP and strongly advocate for an amendment process that allows for stakeholder comment and analysis to ensure that the OEB is fully aware of the impact to stakeholders for any proposed amendments. The process could be similar to that being undertaken by OEB staff to update the 2015 Conservation and Demand Management (CDM) Guidelines (EB-2021-0106) where OEB staff issued proposals for written comment.

Cost Responsibility

As part of the proposal to clarify cost responsibility, OEB staff have proposed that where a DER customer has an associated load and can withdraw electricity from the distributor's system, a distributor must determine any up-front capital contribution by calculating the present value of the distributor's costs over a prescribed period, net of the present value of future revenue the distributor expects to receive from the DER customer through their payment of distribution rates. Further, OEB staff suggest that this approach of subtracting expected distribution revenues from a DER customer's capital contribution avoids the potential to over-recover costs where a new DER customer will pay distribution rates in the normal course.

CLD members are seeking clarity on the applicability of this approach in circumstances where an existing load customer is seeking to connect a DER. For example, if a DER is connecting to an existing load, the revenue from the load should not be considered in the DER capital contribution, because it was already considered in the capital contribution for the load connection.

In addition, CLD members seek clarity in how the cost responsibility rules in Chapter 3 would apply to other types of DERs that are not covered under the "generation facility" definition. For instance:

- Are storage facilities supposed to be treated as a load or a generator?
- If the intention is for storage facilities to be treated as generators, which cost responsibility rules that are applicable to generation facilities should apply to storage?
- How should the installation of a behind the meter connected generation or storage facility be treated if it reduces the load consumed at a new or existing facility connection?
- Would any of the rules applicable to renewable generation facilities apply to storage facilities?

CLD members also suggest that it is not sufficient for the OEB to simply apply the cost responsibility rules to generation or storage facilities without specifying exactly how the rules should be applied. To our knowledge, these questions have not been discussed by the Working Group or sub-groups in any detail and believe that this requires further exploration and consideration.

Finally, CLD members seek clarity on how to recover the costs for preliminary consultation in excess of the allowed three times in a calendar year and suggest that this issue be explored in future working group meetings.

Other Items

Appendix E Form
CLD members note that the specified form in Appendix E that is referred to in the proposed amendments to Section 6.2.5, has not been updated since this form was established. CLD members recommend that the OEB should conduct a review of the form to determine if the information contained in the form and the technical details specified in the form remain relevant and applicable for DER connections.

Standby Charges
CLD members recognize that the OEB has previously indicated that it would address the need for standby charges through their Commercial and Industrial Rate Design initiative, however, limited progress has been seen in this initiative over the last few years. CLD members continue to advocate that the OEB consider creating standby charges in the context of a more active policy initiative (e.g., Framework for Energy Innovation). The need for standby charges continues to grow as more DERs are connected to distribution systems.

Treatment of Electrified Railways and Light Rail Transit
CLD members seek clarity on how the DSC is intended to treat electrified railways and Electrical Light Rail Transit (LRT) that can both withdraw (as a load) and inject (as a DER)

power back into the grid at multiple locations along the railway tracks, potentially in different service territories, during regenerative braking. Unlike a conventional DER that is physically connected to one location of the grid to inject power, LRTs are continuously moving and can inject power at more than one location.

While these facilities would be considered a DER under the proposed definition, clarity is required on how these types of resources should be treated and to what extent capacity must be reserved.

C. CONCLUSION

CLD members recognize OEB staff for their work with the Working Group to develop the proposed DSC amendments. CLD members appreciate the opportunity to provide feedback on the proposed DSC Amendments and look forward to future opportunities for engagement on these issues.

Sincerely,

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