



January 20, 2022

Registrar
Ontario Energy Board
P.O. Box 2319
2300 Yonge Street, 27th Floor
Toronto ON M4P 1E4

Submitted via email

RE: PROPOSED AMENDMENTS TO THE DISTRIBUTION SYSTEM CODE TO FACILITATE CONNECTION OF DISTRIBUTED ENERGY RESOURCES (EB-2019-0207) and REVIEW OF THE DISTRIBUTED ENERGY RESOURCES CONNECTION PROCEDURES

Dear Registrar:

Convergent Energy and Power (“Convergent”) appreciates the opportunity to respond to your request for submissions relating to the “Distributed Energy Resources (DER) Connections Review.” Convergent is the leading independent developer of energy storage solutions in North America. We manage over 250 MWs / 500 MWhs of projects worth approximately USD\$550 million that are operating or under construction. In Ontario, Convergent has commissioned over 50 MWs of energy storage projects, making us one of the largest operators of energy storage systems in Canada. Our pipeline of operating facilities includes the two largest behind-the-meter storage projects in North America – both 10 MW / 20 MWh – located at Shell and Arlanxco’s refineries in the Sarnia valley. We have also deployed energy storage systems in partnership with the IESO, Ford Motor Company, Pilkington Glass and Husky Injection Molding, and we have other facilities currently under construction in Canada and the United States. Convergent’s experience in developing large-scale storage in Ontario is unrivaled.

Convergent is supportive of the DER Connections Review process and the OEB’s commitment to modernize regulation to keep pace with the sector evolution. More specifically, we are in alignment with the OEB’s goal to improve connection timelines and provide transparency and consistency in the process for connecting a generation or storage DER. It is with this in mind that we have prepared the following comments responding to the OEB’s Notice of Proposal to Amend the Distribution System Code regarding connection of distributed energy resources (DERs) to local electricity distribution systems:

GENERAL COMMENTS

Standardizing and Improving the Transparency of Capacity Allocation During the Form A/PCR and CIA Process

As a matter of practice, Distributors and LDCs across Ontario have had different procedures for the handling Form A / PCR applications. Some distributors allocate capacity on a “first come, first served” basis – meaning



that, if capacity is available, it can be allocated by submitting a compliant CIA. Other distributors have adopted an opaque, unilateral strategy of “reserving capacity,” whereby they refuse to allocate customers / developers the full capacity requested during a Form A / CIA, instead opting to “reserve” a prescribed amount of the available capacity for unspecified future use.

Regardless of which approach to handling capacity allocation is deemed appropriate, it is critical that the OEB explicitly define and regulate this process. As it stands now, the handling of capacity allocation varies from distributor to distributor with no standards, oversight or regulation, essentially allowing distributors to dictate their own rules. This has led to a distinct lack of transparency, consistency and accountability in the capacity allocation processes across Ontario.

CODE-SPECIFIC COMMENTS

Appendices A and B: Notice of Proposed Amendments to the Distribution System Code

6.2.3 A distributor shall promptly make available a generation connection information package to any person who requests this package. The package must be made available electronically on the distributor’s website. It must also be available in hard copy at the distributor’s premises for customers who request it. The package shall contain the following information:

(f) the sample Protection Philosophy as provided in the *Distributed Energy Resources Connection Procedures*; and

(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 must be updated as necessary to capture system reconfiguration or expansions and shall be updated at least every 3 months

Comment: Convergent strongly supports having this enhanced package, with the addition of a sample protection philosophy and listing of restricted feeders being available in both hard copy and on the distributors’ websites. This consistent approach will eliminate confusion and reduce the amount of time needed to access this information.

As part of the Tranche 3 discussions, Convergent further recommends that this enhanced package include a list of all feeders by name and feeder designation with stated short-circuit capacity available, to be updated at least every 3 months. This document will enhance the transparency of the capacity allocation process, and reduce the number of Preliminary Consultation Reports distributors receive to check available capacity.



Another issue to flag is that the definition of restricted feeders in Appendix A (Section 1.2) does not fully align with the definition included in the DER Connection Procedures (Section 4.2). DER Connection Procedures specifically discusses feeders that have zero short-circuit capability while the Appendix A definition discusses zero capacity in general. Convergent supports the definition of restricted feeders as feeders with zero short-circuit capability since short-circuit limitations are hard technical restrictions due to safety and equipment protection reasons. General capacity restrictions, such as thermal capacity, are more flexible constraints and can be addressed through additional investments funded by the connecting resources (e.g., re-conductoring of limited feeder portion, re-arrangement of normal operating conditions to lower thermal overload, new switching capability under reliability events, etc.).

Preliminary Consultation Information Request and Report:

6.2.9.1 A distributor shall provide a Preliminary Consultation Report to a person without charge up to 3 times in a calendar year.

Comment: Convergent requests clarification on the justification for limiting the access to Preliminary Consultation Reports. The Preliminary Consultation Reports appear to be a slightly adjusted version of the Form A that is shared with customers free of charge today. Further, the Preliminary Consultation Report is the only document that allows customers to link their connection location with the proposed restricted feeder list. Without a Preliminary Consultation Report, a customer cannot determine if their connection point is on a restricted feeder, creating an unfair and unjustified barrier to customers seeking to manage their electricity needs. The information provided in the Preliminary Consultation Report appears to be common and easily accessible data that should not be a significant cost for distributors to compile.

In addition, the DSC amendments provide no definition of person and therefore it is not clear if it is a corporate entity, individual, or developer. Distributor service territories come in various sizes, the standard limit of three for all distributors is not fair to customers within large service territories.

Convergent recommends that the limit of three be removed and the Preliminary Consultation Report be provided free of charge once a year to each individual customer upon request. This ensures fair and equal access to distribution system information for all customers.

6.2.16 In the case of an application for the connection of a mid-sized or large embedded generation facility, once the impact assessment is provided to the applicant, the distributor and the applicant have entered into an agreement on the scope of the project and the applicant has paid the distributor for the cost of preparing a detailed cost estimate of the proposed connection, the distributor shall provide the applicant with a detailed cost estimate and an offer to connect by the later of 90 days after the receipt



of payment from the applicant and 30 days after the receipt of ~~comments~~ study results from a transmitter or distributor ~~that has been advised~~ requested under section 6.2.14A.

Comment: Convergent believes the order noted in section 6.2.16 may be incorrect. The current process is:

- a completed CIA is issued which includes a cost estimate to connect
- if an applicant wishes to have a more detailed estimate completed, notice is provided to the distributor along with a payment, and detailed estimate is provided within the timeframe noted
- if the applicant wishes to proceed, they enter into a capital cost agreement or capital cost recovery agreement in the case with Hydro One.

6.2.18 applies only to an exporting generation facility if the applicant does not have an executed ~~OPA~~ IESO contract which includes a requirement for security deposits or similar payments, a requirement that the applicant pay a capacity allocation deposit equal to \$20,000 per MW of capacity of the embedded generation facility at the time the connection cost agreement is executed;

(b) applies only to an exporting generation facility if the applicant does not have an executed ~~OPA~~-IESO contract which includes a requirement for additional security deposits or similar payments, a requirement that if fifteen (15) calendar months following the execution of the connection cost agreement the embedded generation facility is not connected to the distributor's distribution system, the applicant must pay an additional capacity allocation deposit equal to \$20,000 per MW of capacity of the embedded generation facility on the first day of the sixteenth(16th) calendar month following the execution of the connection cost agreement;

Comment: Convergent recommends removal of this section, or – at a minimum – it should be discussed in depth by the Working Group in tranche 3 of the DER Connection consultation. It is unclear how the specified capacity reserve charge of \$20,000/MW was determined, so we recommend this provision be removed. Additional clarity is also necessary regarding the 15-month payment requirement following the execution of the connection cost agreement, especially in light of the fact that hydro-powered projects have up to 5 years for payment.

Timelines for developing resources vary and the requirement to collect a second deposit does not provide fair and equal treatment for all resources. Instead, Convergent recommends that the second deposit be collected once exporting generation facilities reach a specific milestone within the connection cost agreement.



Review of the Distributed Energy Resources Connection Procedures

Convergent supports the creation of the Distributed Resources Connection Procedures document. This will help ensure consistency and transparency regarding the application of the DSC. As key principles we strongly suggest that the OEB take an active role in approving deviations from the DERCP and engage in a thoughtful discussion regarding application costs. In the spirit of continued collaboration, we respectfully submit the following comments for your consideration:

Preliminary Consultation Information Request:

1. Section 2 Project Intent:
 - a. "Inject energy into the grid under the program" suggest we remove the three words "under the program."
 - b. "Emergency Backup only when the grid is not available" - most distributors have a separate application form for Emergency Backup generators.
 - c. "Form A Complete" should reference PCIR is complete, as we are no longer using Form A/B/C

Preliminary Consultation Information Request:

1. The PCIR example provided is missing 2 key pieces of information:
 - a. proposed installed capacity
 - b. DER type

Convergent suggests providing an updated sample PCIR.

Preliminary Consultation Report:

1. The PCR request indicates the distributor will assign an ID#. The ID# should appear in the report, next to date.
2. It would be very helpful if the distributor could include the CIA cost(s) as part of the report.

Preliminary Consultation Report:

1. The PCR example shows no capacity due to restriction at transmission level, no transmission details provide and indicates LDC CIA required. Convergent recommends the example be for a project where capacity is available and provide all necessary distributor and transmitter details.

5. Connection Impact Assessment

5.1 Description: Cost estimates is a key issue to be discussed in Tranche 3 of this consultation. This draft of 5.1.2 has removed the boundaries provided to ensure Connection Cost Agreement accuracy. This introduces significant financial risk for developers of DERs.

Convergent suggests a Connection Cost Agreement accuracy range of +/- 25%. This is in line with industry standards and provides the financial certainty required for continued development of DERs.

Regarding 5.1.4, we recommend that any proposals regarding costs should be addressed in Working Group discussions.



Single Line Diagram (SLD) in Sample CIA

The SLD in the sample CIA provides far too much detail for a CIA application. Developers support the need for the right level of detail in the SLD for the distributor to be complete the connection impact assessment. The example provided has several items that would not be available at the time of submission, including whether or not transfer trip is required. This item should be referred back to the Technical Working Group, there must be enough examples around without using the one provided.

Convergent appreciates the opportunity to provide these comments and report to you. We look forward to continuing this discussion with you, your team and participating in the DER Connections Advisory Group.

Sincerely,

Tremor Temchin

Senior Vice President, Head of Canada