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Independent Electricity System Operator
1600-120 Adelaide Street West
Toronto, ON M5H 1T1
t 416.967.7474
www.ieso.ca

September 16, 2019

Via Email

Ms. Kirsten Walli
Board Secretary
Ontario Energy Board
27th Floor 2300 Yonge Street
Toronto, ON M4P 1E4

Dear Ms. Walli:

Re: Distributed Energy Resources Connections Review Initiative
Ontario Energy Board File Number: EB-2019-0207

On August 13, 2019, the Ontario Energy Board (OEB) issued a letter to commence an initiative to review its requirements in regard to the connection of distributed energy resources (DERs) by licensed electricity distributors (DER Connections Review). The OEB invited comments and feedback on issues and questions identified in its letter.

The Independent Electricity System Operator (IESO) is hereby providing its comments on related key topics and recommends that these items be captured in the current OEB DER initiatives[1].

Connection and Performance Requirements

The IESO is currently working on its own initiative to clarify its connection and performance requirements for energy storage and DERs, including making changes or updates to *Chapter 4 Grid Connection Requirements* Appendix 4.2 and 4.3 of the Market Rules for the Ontario Electricity Market (Market Rules).

In the IESO's 2019 Operability Assessment, the IESO identified a need for DERs to ride through system events to prevent large-scale generation loss caused by a single event – similar to what other jurisdictions have experienced. The IESO is already applying these ride-through requirements (consistent with IEEE-1547-2018 and new Canadian Standards Association (CSA) standards) to all resources subject to a System Impact Assessment under its authority under Chapter 4 of the Market Rules, and it is looking to provide further clarity for market participants by amending Appendix 4.2 and 4.3 of the Market Rules.

To further mitigate the risk of large-scale generation loss caused by a single event, the IESO has discussed with OEB staff the need to update the Distribution System Code (DSC) to reflect the

[1] DER Connections Review (EB-2019-0207), and Utility Remuneration and Responding to DERs (EB-2018-0288).

changes to the CSA standards and IEEE-1547-2018 as it relates to DERs. In addition, the IESO has discussed with OEB staff the possibility of updating the protection setting of existing DERs that exceed a certain size.

The IESO urges the OEB to accelerate the timeline for updating the DSC and to begin the conversation with local distribution companies to initiate protection setting changes to existing DERs. These two initiatives will assist with preventing a widespread system event caused by DERs. The IESO intends to continue coordinating its initiative work with OEB staff and industry stakeholders.

The IESO also notes in relation to DER connection requirements that measured meteorological data is required, as per the Market Rules, from DERs 5 MW or greater to create accurate forecasts. Accurate predictions of supply are necessary to balance demand and efficiently dispatch all resources. There remain DERs that do not provide this data to the IESO, and this initiative should consider meteorological data reporting more generally as a connection requirement that supports system reliability and wholesale market efficiency.

Promoting a Data-Centric Approach

The IESO proposes that a data-centric approach be considered by the OEB when determining connection requirements for DERs as well as in any other considerations around effective overall DER development and integration. These data-centric considerations should include:

1. the type of data that should be collected in order to enable a fully integrated, 360-view of the DERs in the context of system operations at various levels (i.e., provincial, regional, etc.)
    - a higher level, “system“ thinking is required to enable collecting and connecting system data (generation, transmission and distribution) in the future at a more granular level, to cover all key areas of the energy equation (consumption, generation and storage);
2. the tools and platforms that would be required to analyze this advanced data, by various industry stakeholders on the value chain; and
3. an evolved regulatory and legislative framework that enables various parties (public or private) access to this data, in a manner that ensures privacy, security and ethical use.

Stakeholder Coordination

The IESO has heard from stakeholders that there is a need for transparent coordination between IESO and OEB initiatives. The IESO foresees some overlap between the OEB's DER Connections Review and Utility Remuneration and Responding to DERs initiatives; hence, the IESO will continue to pursue coordination efforts through engagement forums such as OEB proceedings or consultations, the IESO's Energy Storage Working Group and its own research efforts i.e., Innovation and Sector Development whitepaper series.

The IESO appreciates this opportunity to provide its comments on the DER Connections Review. If the OEB has any questions, please contact me at 905-855-6340 or by email at devon.huber@ieso.ca.

Yours truly,

Devon Huber
Senior Manager, Regulatory Affairs

cc: Catherine Ethier, OEB
All participants to EB-2019-0207