



Ontario
Energy
Board | Commission
de l'énergie
de l'Ontario

BY EMAIL

November 27, 2025

**To: All Licensed Electricity Transmitters
All Other Interested Stakeholders**

**Re: Changes to Improve the Transmission Framework for
Reliability and Power Quality
Ontario Energy Board File Number: EB-2021-0307**

What You Need to Know

- **The Ontario Energy Board (OEB) is enhancing the reliability and power quality regulatory framework for transmitters.**
- **Supporting economic development through more reliable transmission services for industrial customers, these changes aim to improve power quality and greater transparency regarding regional reliability.**
- **The OEB will initiate a process to propose amendments to the Transmission System Code (TSC) related to power quality. To provide transparency on reliability performance, the OEB is implementing new Reporting and Record Keeping Requirements (RRR) for transmitters who are also expected to submit revised customer delivery point performance standards.**

On September 28, 2023, the Ontario Energy Board (OEB) launched a review to improve the regulatory framework for electricity transmission reliability and power quality as part of its ongoing Reliability and Power Quality Review (RPQR) initiative.

To support this work, the OEB established the RPQR Transmission Subgroup (Subgroup) to provide advice regarding the reliability issues that were identified through

a survey of customers and a review of customer-specific reliability standards, called customer delivery point performance standards. The OEB also sought the Subgroup's advice on the need for any new reporting and record keeping requirements (RRRs) and potential amendments to the Transmission System Code (TSC). The Subgroup met several times and provided advice to OEB staff and meeting materials related to the Subgroup's discussions are available on the OEB's [RPQR Engage with Us web page](#).

The OEB has considered the advice from the Subgroup and is undertaking the following actions to improve the reliability and power quality regulatory framework for transmitters. Specifically, the OEB intends to implement the following enhancements to the framework:

- Address power quality through amendments to the TSC, by updating specific power quality standards in Appendix 2 (including some of the terminology) and adding a new power quality standard.
- Add new RRRs related to reliability (i.e., interruptions) and power quality which include two separate filings – public reporting (on a regional basis) and confidential reporting (on a customer-specific basis).

The OEB agrees with the Subgroup's recommendation to incorporate power quality in certain general obligations the TSC that currently address reliability. These recommendations would involve specific amendments to the TSC, as well as suggested changes to Appendix 2 of the TSC. The OEB will issue proposed TSC amendments for broader stakeholder comment.

The OEB has considered the concerns of some Subgroup members about the sharing of certain information that will be collected through the new RRRs and supports an approach that includes both public and confidential filings given the latter involves customer-specific information. The OEB reviewed the proposed data for each of the filings and is issuing revised RRRs for transmitters as detailed in Appendix A of this letter.

Transmitter Standards Document

Each transmitter that has load customers connected to its transmission system is required to have an OEB approved document that sets out its customer delivery point performance standards (Transmitter Standards Document). The OEB has considered the recommendation of the Subgroup on expanding the scope of the Transmitter Standards Document to include a new section that focuses on power quality. This addition aligns with a key OEB goal for the RPQR, to better reflect power quality in the OEB's regulatory framework that applies to electricity transmitters.

The OEB also agrees with the Subgroup's recommendation to introduce regional reliability benchmarks, allowing industrial customers to compare their reliability against

regional averages. For this purpose, the Subgroup suggested using the five broad regions used on the Independent Electricity System Operator's Regional Planning Dashboard¹, since their boundaries aligned with the smaller 21 planning regions, when grouped. The OEB is adopting the five broader regions for the purpose of the new RRRs and regional reliability benchmarks reporting which aligns assessing regional reliability with regional planning and transmitter investment planning.

Appendix B of this letter sets out the remaining changes to the Transmitter Standards Document, which focus on specific elements of that document (e.g., changes in the approach to Group standards, which reflect the average reliability performance of customers in each of the four bands).

The OEB expects transmitters to revise their Transmitter Standards Document to reflect the changes discussed above and those set out in Appendix B of this letter. The revised version will then need to be submitted to the OEB for approval.

In addition to changes to the Transmitter Standards Document, the Subgroup also recommended the need for transmitters to better educate industrial customers about the standards, as a matter of customer awareness. The OEB therefore expects transmitters to improve on that front through annual engagement initiatives (e.g., workshops) that are open to all transmission customers, including electricity distributors.

Next Steps

The following sets out the next steps to complete the transmission-related aspect of the RPQR consultation.

1. In April 2027, applicable transmitters will need to submit 2026 information related to the new reliability and power quality RRRs, as detailed in Appendix A of this letter.
2. The OEB will initiate a process to propose amendments to the TSC in the coming months.
3. The OEB expects applicable transmitters to submit a revised Transmitter Standards Document that is consistent with the changes discussed above (i.e., new section on power quality) and those set out in Appendix B of this letter for approval by **March 1, 2026**.

¹ The five broad regions in Ontario are: GTA & Central, East, Northeast, Northwest, Southwest.

The OEB wants to take this opportunity to thank members of the Subgroup for their efforts in providing their recommendations and their commitment to improving the transmission framework for reliability and power quality in Ontario.

Please direct any questions related to this letter to IndustryRelationsEnquires@oeb.ca.

Yours truly,

Brian Hewson
Vice President, Consumer Protection & Industry Performance

Appendix A

New Customer Reliability & Power Quality RRR Requirements for Transmitters

1.7 Confidentiality of information

The Board intends to treat information filed under the specific sections of these Electricity Reporting and Record Keeping Requirements listed below in confidence. All other information filed will be publicly available.

Distributor: 2.1.2 (b); 2.1.2 (c) and 2.1.2(d) to the extent that the information pertains to retailer customers; 2.1.22; 2.3.1; 2.3.3; 2.3.5 (c); 2.3.5 (d); 2.3.6; 2.3.7; and 2.3.8

Transmitter: 3.1.7, 3.1.10; 3.3.2; 3.3.4 (c and d); 3.3.5; and 3.3.6

....

3 TRANSMITTERS

3.1.8 Reporting on Transmission Customer Reliability

A transmitter is required to monitor the reliability information in relation to its load customers and shall provide, annually by April 30, the information set out in sections 3.1.8.1 and 3.1.8.2. The definitions set out below apply to sections 3.1.8 to 3.1.10.

Definitions:

- 1) An “Interruption” means the loss of electrical power, being a complete loss of voltage to a customer delivery point, including planned interruptions scheduled by the transmitter but excluding outages caused by customer equipment and extraordinary events (e.g., 2013 GTA flooding, 2018 Ottawa Area tornados, etc.).

Sustained Interruption: means an interruption with a duration of one minute or more.

Momentary Interruption: means an interruption with a duration of less than one minute.

Delivery Point: means a point of connection between a transmitter's transmission facilities and a customer's facilities.

- 2) In determining the number of Interruptions, both Momentary Interruptions and Sustained Interruptions shall be included.
- 3) In calculating the duration of an Interruption, the end of the Interruption shall be considered to have occurred when service has been restored to the customer Delivery Point.
- 4) An “Outlier” means the frequency and/or duration of Interruptions at a Delivery Point that does not meet the minimum standards set out in the transmitter’s Customer Delivery Point Performance Standards document that is required under section 4.5.1 of the Transmission System Code.

Individual Outlier: A customer’s Delivery Point performance, as measured by the duration and frequency of Interruptions, that does not meet the minimum standard (based on the customer’s own historical baseline) in two consecutive years. A customer’s historical baseline is to be calculated by the transmitter based on a 10-year average of Interruptions from the date that the Delivery Point went into service. Where 10 years of data is not yet available, the applicable Group minimum standard shall apply for the first four (4) years after the Delivery Point is placed in-service, and a temporary Individual standard shall then be created after the Delivery Point has been in-service for five (5) calendar years based on the customer’s own data.

Group Outlier: A customer’s Delivery Point performance, as measured by the duration and frequency of Interruptions, that does not meet the minimum standard in the applicable band (as set out below) in two consecutive years. The minimum standard reflects the average number of Interruptions of all customer Delivery Points within the same band. For multi-circuit supply, there is one applicable band. For single circuit supply, there are four applicable bands based on Line Length: < 40 km, 40 km < 90 km, 90 km < 150 km, > 150 km.

3.1.8.1 Single Circuit Supply

The following information shall be reported for single circuit supply configurations:

- a) Total number of Delivery Points connected to the transmitter's transmission system;
- b) Number of Individual Outliers in terms of:
 - i. Frequency;
 - ii. Duration; and
 - iii. Both frequency and duration;
- c) Number of Group Outliers in terms of:
 - i. Frequency;
 - ii. Duration; and
 - iii. Both frequency and duration;
- d) Number of both Individual Outliers and Group Outliers in terms of:
 - i. Frequency;
 - ii. Duration; and
 - iii. Both frequency and duration; and
- e) Percent of Outliers of total Delivery Point population.

3.1.8.2 Multi-Circuit Supply

The following information shall be reported for multi-circuit supply configurations:

- a) Total number of Delivery Points connected to the transmitter's transmission system;
- b) Number of Individual Outliers in terms of:
 - i. Frequency;
 - ii. Duration; and
 - iii. Both frequency and duration;
- c) Number of Group Outliers in terms of:
 - i. Frequency;
 - ii. Duration; and
 - iii. Both frequency and duration;
- d) Number of both Individual Outliers and Group Outliers in terms of:
 - i. Frequency;
 - ii. Duration; and
 - iii. Both frequency and duration; and

e) Percent of Outliers of Total Delivery Point Population.

3.1.9 A transmitter shall provide, annually by April 30, the number of Outliers as required by sections 3.1.8.1 and 3.1.8.2 broken down by Broader Reliability Region (GTA & Central Ontario, East Ontario, Southwest Ontario, Northeast Ontario and Northwest Ontario as reflected on the [IESO's website](#)).

3.1.10 A transmitter shall provide, annually by April 30, the number of Outliers on a specific customer Delivery Point basis and include the following information for each Outlier:

- a) Which Broader Reliability Region (e.g., GTA & Central Ontario, East Ontario, Southwest Ontario, Northeast Ontario, and Northwest Ontario) the Delivery Point is located in;
- b) Which Regional Planning Region (e.g., Greater Ottawa, Windsor-Essex etc. as reflected on the [IESO's website](#)) the Delivery Point is located in;
- c) The Delivery Point name;
- d) The supply circuit(s) designation;
- e) Whether the Delivery Point is single-circuit supply or multi-circuit supply;
- f) The Outlier type (Individual Outlier and/or Group Outlier) – Frequency;
- g) The Outlier type (Individual Outlier and/or Group Outlier) – Duration; and
- h) The type of entity supplied (distributor or industrial).

3.1.11 A transmitter shall provide, annually by April 30, the total number of customer power quality complaints received by the transmitter for each of the Broader Reliability Regions listed in section 3.9.1. All customer power quality complaints shall be reported regardless of how they are received by the transmitter from the customer (e.g., submitted in writing or communicated to the customer's dedicated account representative, etc.).

Appendix B

Approved Changes to the Transmitter Standards Document

Element of Document	Description
Group Standards	<p>Replace 'size of load' with 'type of supply configuration' but maintain 4 band approach.</p> <p>Separately assess for outliers based on Single & Multi-circuit delivery points.</p> <ul style="list-style-type: none"> • 4 bands for Single circuit delivery points (based on Line Length: < 40 km, 40 km < 90 km, 90 km < 150 km, > 150 km). • 1 band for Multi-circuit delivery points.
	<p>Change how customers with below standard delivery point performance (i.e., outliers) are determined, to align with the approach used for Individual standards – 2 consecutive years (replacing 3-year rolling average).</p>
Individual Standards	<p>Maintain the existing approach for comparing a customer's delivery point performance (interruptions) against their own historical 10-year average.</p> <p>New trigger for review – Customer does not need to wait 2 consecutive years to initiate a transmitter review.</p>
Add explanation on how new customers connecting to transmitter's system are addressed	<p><u>New Delivery Points:</u></p> <p>Group minimum standard: Under the new approach (configuration), the standard applies immediately based on the corresponding band that applies to the new delivery point (previously, 3 years of performance data was first required to determine the 3-year rolling average under the size of load approach).</p> <p>Individual minimum standard: For the first 4 years after being placed in-service, the Group minimum standard applies. Temporary standard is then created after the delivery point has been in-service for 5 calendar years based on the customer's own data. The standard is then finalized after 10 calendar years.</p>

Element of Document	Description
	<u>Existing Delivery Points:</u> Existing Group and Individual minimum standards related to existing delivery points apply to the new customer immediately after being placed in-service.
Other	Exclude from outlier determination the interruptions related to customer equipment issues.