



BY EMAIL AND WEB POSTING

August 2, 2023

**NOTICE OF AMENDMENTS TO CODES
TO FACILITATE OPTIMAL INVESTMENTS IN THE REGIONAL PLANNING
PROCESS**

**AMENDMENTS TO THE TRANSMISSION SYSTEM CODE AND
THE DISTRIBUTION SYSTEM CODE**

BOARD FILE NO.: EB-2020-0176

**To: All Licensed Electricity Distributors
All Licensed Electricity Transmitters
All Participants in Consultation Process EB-2020-0176
All Other Interested Parties**

The Ontario Energy Board (OEB) is giving notice under section 70.2 of the *Ontario Energy Board Act, 1998 (Act)* of final amendments to the Transmission System Code (TSC) and the Distribution System Code (DSC). These amendments, which will come into force on the date they are published on the OEB's website, are intended to ensure the most cost-effective investments are made to replace major transmission voltage assets when they reach end-of-life (EOL)¹ and need to be replaced, as part of the regional planning process.

A. Background

On March 24, 2023, the OEB issued a Notice of Proposal to amend the DSC and the TSC ([March Notice](#)) in which it proposed amendments (March Proposed Amendments) aimed at facilitating optimal investments in the regional planning process.

The OEB invited written comments on the March Proposed Amendments and received written comments from two stakeholders (those comments are posted on the OEB's [webpage for this initiative](#)).

¹ The OEB has adopted the Regional Planning Process Advisory Group's (RPPAG) definition of EOL as provided in its report: "The EOL of an asset involves assessing a number of factors, including the physical condition of the asset, and it is a determination of when an asset will need to be replaced by the asset owner (e.g., transmitter) based on those factors. The outlook is typically no longer than 10 years."

In the written comments related to the March Notice, a generator association was highly supportive of the proposed Code amendments and a transmitter also expressed broad support, while also providing specific comments on the proposed Code amendments.

Having considered the comments, the OEB is now finalizing the amendments to the DSC and the TSC, as set out in the March Proposed Amendments, with one non-material change to the amendments to both Codes and a further non-material change to the DSC amendment; both are discussed in Section B. The final TSC amendments are set out in in Appendices A (blackline relative to the existing TSC) and B (final text for TSC), and the final DSC amendments are set out in in Appendices C (blackline relative to the existing DSC) and D (final text for DSC) of this Notice.

B. Adoption of March Proposed TSC and DSC Amendments with Non-Material Revisions

In the March Notice, the OEB proposed a similar amendment to both section 3C.2.2(d) of the TSC and section 8.3.1(a) of the DSC.

The March Notice explained that section 3C.2.2(d) of the TSC currently requires the lead transmitter to provide a report to the Independent Electricity System Operator (IESO)² that reflects the results of the Needs Assessment for a region. It was proposed that the report to the IESO include a 10-year outlook related to the EOL of major transmission assets that the lead transmitter owns and, where applicable, the 10-year outlook of EOL information provided by distributors³ that own major transmission voltage assets (under the amendment to section 8.3.1(a) of the DSC which is discussed below). The OEB remains of the view that, for the purpose of that report to the IESO, major transmission assets include transformers, circuit breakers, overhead lines, and underground cables.

In relation to the DSC, the OEB proposed to amend section 8.3.1(a) to clarify that, where a transmission-connected distributor owns one or more of the major transmission voltage assets identified above, the information provided to the lead transmitter under that section must include a list of major transmission voltage assets that are expected to reach EOL based on a 10-year outlook.

A transmitter suggested adding thresholds to the proposed amendments in both Codes to recognize that some replacements, such as a short conductor or a few circuit breakers, would not have a material impact on regional planning. The transmitter proposed the specific thresholds set out below:

² The report is also provided to all licensed distributors and licensed transmitters within the region.

³ Information is also provided by other transmitters, where applicable.

- For circuit breakers, where replacement includes the lesser of six breakers or more than 50% of station breakers; and
- For overhead lines and underground cables, where Leave to Construct approval under section 92 of the OEB Act is required.

The OEB notes that the thresholds suggested above are consistent with those adopted by the RPPAG. Those thresholds are reflected in a template that is discussed in the RPPAG's Report to the OEB.⁴

As indicated in the March Notice, the intent of these amendments is to focus on the replacement of "major" assets that would provide the "highest-value opportunities" for considering non-like-for-like replacements (e.g., non-wires alternatives, or NWAs). The OEB is of the view that including materiality thresholds is consistent with achieving that objective. Doing so will avoid requiring the reporting of information related to immaterial asset replacements (e.g., one circuit breaker) that would not provide such high-value opportunities and therefore would not improve the regional planning process.⁵

The OEB is of the view that the thresholds suggested by the RPPAG are reasonable, and EOL information should be provided for all transformers (i.e., no threshold). That said, the OEB is also of the view that a relatively minor adjustment is necessary in relation to the proposed threshold for overhead lines and underground cables to achieve the intent of the Code amendments. The OEB notes like-for-like replacements can involve significant investments (including lines over 2 km) and therefore similarly represent high value opportunities for considering non-like-for-like replacements such as NWAs. However, essentially all like-for-like replacements are exempt from the requirement to file an LTC application. LTC approval is only required in some relatively rare cases that involve like-for-like replacements; that is, where the acquisition of additional land is necessary.⁶ The OEB notes that whether additional land is required or not has no relationship to the materiality of an investment (and therefore whether EOL information should be provided).

In the OEB's view, it is the related technical asset criteria – exceeding 2 km, over 50 kV – that is more relevant than the process of filing an application within this context. The OEB also believes it is the technical asset criteria that drove the RPPAG's suggested threshold since that is what relates to materiality of the assets. Materiality was also the focus of Hydro One's suggested thresholds in its comments on the March Proposed

⁴ [RPPAG Report to the OEB](#), p.20.

⁵ This change to including materiality thresholds is also consistent with the most recent [Letter of Direction](#) from the Minister of Energy which discussed focusing regulatory requirements where they can be justified and facilitating cost effective NWAs "given their significant potential to replace or defer the need for more costly traditional infrastructure". The OEB believes these final amendments strike the right balance between those two objectives.

⁶ [OEB Filing Requirements for Leave to Construct Applications, Chapter 4](#), p.5.

Amendments. The OEB also believes focusing on whether the line exceeds 2 km and is over 50 kV should simplify implementation and result in lower administrative burden for electric utilities (relative to determining whether an LTC application would be required). For those reasons, the OEB will make that minor adjustment to the proposed threshold related to lines to focus on the technical asset criteria related to requiring LTC approval in the Code amendments to ensure the IESO receives EOL information in relation to all material investments – including like-for-like replacements – for Integrated Regional Resource Planning (IRRP) purposes.

The OEB is therefore making a non-material revision to the March Proposed Amendments to TSC section 3C.2.2(d) and DSC section 8.3.1(a) to incorporate the materiality thresholds discussed above. That said, there may be situations where EOL information associated with asset replacements that do not meet those thresholds would be beneficial. The OEB requests that the IESO, as the lead entity in the regional planning process that is responsible for identifying where NWAs are a viable option to meet a need, and as an entity that is not an owner of transmission assets, monitor for a relatively common scenario(s) where the thresholds discussed above are not being met but the scenario(s) is/are determined to represent a good opportunity for NWA solution, for the purpose of informing potential future refinements to these thresholds.

The transmitter also recommended fully aligning the terminology in the DSC and TSC amendments in relation to the type of transmission assets that should be reported by distributors. The OEB agrees with that suggested change as it will ensure consistency in reporting and is therefore making a non-material revision to DSC section 8.3.1(a) to clarify that “major transmission voltage assets” are being defined for the purpose of only that section of the DSC. However, the OEB is not in agreement with the suggested use of the term “transmission assets” in DSC section 8.3.1(a). The March Notice explained why it was important to use the slightly different term “transmission voltage assets” in the DSC amendment (i.e., distributors that own assets, such as transformer stations, have often been granted determinations by the OEB that the assets are deemed to be “distribution” assets).

The OEB is therefore making a non-material revision to the March Proposed Amendments to TSC section 3C.2.2(d) and DSC section 8.3.1(a) to incorporate the materiality thresholds discussed above, and a non-material revision to DSC section 8.3.1(a) to clarify that “major transmission voltage assets” are being defined for the purpose of only that section of the DSC.

Housekeeping Issues

As noted in the March Notice, the OEB is also taking this opportunity to amend the TSC to change all references to the Ontario Power Authority (and the OPA) to the

Independent Electricity System Operator (and the IESO), as appropriate, to reflect the amalgamation of the IESO and the OPA.

C. Anticipated Costs and Benefits

The anticipated costs and benefits associated with the March Proposed Amendments were set out in the March Notice, and interested parties should refer to the March Notice for a detailed discussion in that regard.⁷ The OEB believes that the Final Amendments set out in this Notice will result in the same benefits as the March Proposed Amendments. The OEB noted in the March Notice that it expected the costs of implementing the proposed changes to be minimal. The OEB expects that the change set out in this Notice – introduction of materiality thresholds – will reduce the previously anticipated costs for transmission asset owners and avoid imposing an unnecessary burden on the affected electric utilities.

As indicated in the March Notice, most distributors (including all embedded distributors) do not own any major transmission voltage assets and will therefore not be affected at all by these changes to the DSC.

D. Coming into Force

The amendments to the TSC and the amendments to the DSC, as set out in Appendix A and Appendix C, respectively, come into force on the date that those final Code amendments are published on the OEB's website after having been made by the OEB.

If you have any questions regarding the final Code amendments described in this Notice, please contact IndustryRelations@oeb.ca. The OEB's toll free number is 1-888-632-6273.

⁷ [March Notice](#), p.6.

DATED at Toronto, **August 2, 2023**

ONTARIO ENERGY BOARD

Nancy Marconi
Registrar

Attachments:

- Appendix A — Amendments to the Transmission System Code – Comparison
Version to Current Code
- Appendix B — Amendments to the Transmission System Code – Clean Version
- Appendix C — Amendments to the Distribution System Code – Comparison
Version to Current Code
- Appendix D — Amendments to the Distribution System Code – Clean Version

Appendix A
to
Notice of Amendments to Codes

August 2, 2023

EB-2020-0176

Amendments to the Transmission System Code –
Comparison Version to Current Code

Note: Underlined text indicates additions to the Transmission System Code and strikethrough text indicates deletions from the Transmission System Code. Grey shading indicates revisions to the March Proposed Amendments. Numbered titles are included for convenience of reference only.

3C.2.2 For the purposes of section 3C.2.1, a transmitter shall:

- (d) within 10 days of completion of a needs assessment for a region, provide a report to ~~the OPA~~, the IESO, and all licensed distributors and licensed transmitters within the region that reflects the results of the needs assessment, including the identity of the licensed distributors that will and will not need to be involved in further regional planning activities for the region, and post that report on its website. The report shall include a 10-year outlook related to the end-of-life of major transmission assets that the lead transmitter owns and, where applicable, the 10-year outlook of the end-of-life information provided by licensed distributors under section 8.31(a) of the Distribution System Code and other transmitters. For the purpose of this section, major transmission assets include transformers; circuit breakers (where replacement includes the lesser of six breakers or more than 50% of station breakers); overhead lines (where replacement exceeds two kilometres and is over 50 kV); and underground cables (where replacement exceeds two kilometres and is over 50 kV);

Appendix B
to
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Amendments to the Transmission System Code – Clean Version

3C.2.2 For the purposes of section 3C.2.1, a transmitter shall:

- (d) within 10 days of completion of a needs assessment for a region, provide a report to, the IESO, and all licensed distributors and licensed transmitters within the region that reflects the results of the needs assessment, including the identity of the licensed distributors that will and will not need to be involved in further regional planning activities for the region, and post that report on its website. The report shall include a 10-year outlook related to the end-of-life of major transmission assets that the lead transmitter owns and, where applicable, the 10-year outlook of the end-of-life information provided by licensed distributors under section 8.31(a) of the Distribution System Code and other transmitters. For the purpose of this section, major transmission assets include transformers; circuit breakers (where replacement includes the lesser of six breakers or more than 50% of station breakers); overhead lines (where replacement exceeds two kilometres and is over 50 kV); and underground cables (where replacement exceeds two kilometres and is over 50 kV);

Appendix C
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Amendments to the Distribution System Code –
Comparison Version to Current Code

Note: Underlined text indicates additions to the Distribution System Code and strikethrough text indicates deletions from the Distribution System Code. Grey shading indicates revisions to the March Proposed Amendments. Numbered titles are included for convenience of reference only.

- 8.3.1 A transmission-connected distributor shall provide the following to the lead transmitter for the region within which the distributor's licensed service area is located, in whole or in part:
- (a) such information as the lead transmitter may from time to time reasonably require to support regional planning, and shall do so within 60 days of receipt of the lead transmitter's request. For clarity, where a distributor owns transmission voltage assets, the information provided to the lead transmitter shall include a 10-year outlook related to the end-of-life of major transmission voltage assets. ~~including~~ For the purpose of this section, major transmission voltage assets include transformers; circuit breakers (where replacement includes the lesser of six breakers or more than 50% of station breakers); overhead lines (where replacement exceeds two kilometres and is over 50 kV); and underground cables (where replacement exceeds two kilometres and is over 50 kV); and

Appendix D
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Amendments to the Distribution System Code – Clean Version

- 8.3.1 A transmission-connected distributor shall provide the following to the lead transmitter for the region within which the distributor's licensed service area is located, in whole or in part:
- (a) such information as the lead transmitter may from time to time reasonably require to support regional planning, and shall do so within 60 days of receipt of the lead transmitter's request. For clarity, where a distributor owns transmission voltage assets, the information provided to the lead transmitter shall include a 10-year outlook related to the end-of-life of major transmission voltage assets. For the purpose of this section, major transmission voltage assets include transformers; circuit breakers (where replacement includes the lesser of six breakers or more than 50% of station breakers); overhead lines (where replacement exceeds two kilometres and is over 50 kV); and underground cables (where replacement exceeds two kilometres and is over 50 kV); and