Coordonnateur de la fiabilité au Québec

Traduction attestée de la définition du réseau de transport principal



Coordonnateur de la fiabilité au Québec

Demande R-4190-2022

I hereby certify that this is a complete and accurate translation into English of the attached French document.

Anna Tomczyk, Certified Translator

OTTIAQ, Member No. 7979 Signed in Montréal, Québec, on November 30, 2023

Definition

Main Transmission System (RTP)

Only Elements, groups of Elements and facilities located within Québec are covered by this definition.

Basic principle

The Main Transmission System (RTP) is made up of the Transmission Elements operated at a voltage of 300 kV or higher as well as Active Power and Reactive Power resources connected at a voltage of 300 kV or higher, subject to the inclusions and exclusions below. Must be included are Transmission Elements operated at a voltage of 700 kV or higher as well as Transmission Elements connected to Transmission Elements operated at a voltage of 700 kV or higher. Excluded are facilities used in the local distribution of electric energy.

Inclusions:

- **I1:** Transformers with a terminal operated at 700 kV or higher and associated bus bars
- **12:** Generation resource(s) that are part of a generating station or a facility whose gross aggregate nameplate rating is greater than 75 MVA and:
 - for a generation resource Connected to the RTP, generator terminals through the high-side of the step-up transformer(s);
 - for a generation resource Not Connected to the RTP, the generator terminals through the low-voltage side of the step-up transformer(s).
- **I3:** Blackstart Resources identified in the Transmission Operator's restoration plan.
- **I4:** Dispersed Power Producing Resources with a gross aggregate nameplate rating greater than 75 MVA and that are connected through a system designed primarily for delivering such capacity to a common point of connection. In those cases, the Facilities designated as part of the RTP are:
 - The individual resources, and
 - The system designed primarily for delivering capacity from the point where those resources aggregate to greater than 75 MVA to a common point of connection.
- **I5:** Static or dynamic devices (excluding generators) dedicated to supplying or absorbing Reactive Power, unless excluded by Exclusion E4:
 - That are connected either to a voltage of 300 kV or higher; or
 - That are connected directly to a step-up transformer with a high-side voltage of 300 kV or higher; or
 - That are connected through a transformer and its associated bus bars covered by Inclusion I1, or

- A dedicated step-up transformer connected to one of the associated bus bars covered by Inclusion I1.
- **I6:** Facilities that connect the Québec Interconnection to another Interconnection, based on the following criteria:
 - For facilities that, under normal operation, are synchronized to the Québec Interconnection, the RTP includes Transmission facilities, including DC converter facilities and all the associated Elements, that provide the principal path for bulk power transfer between the Bulk Electric System (BES) Facilities located in the other jurisdiction and the Transmission Elements that are part of the RTP;
 - For facilities that, under normal operation, are synchronized to an Interconnection other than the Québec Interconnection, the RTP includes the Facilities to which the BES definition applies, with the following exception:
 - For the Elements under Inclusion I2 of the BES definition, individual units with a gross nameplate rating of 20 MVA or higher must be included in a generating station having a gross nameplate rating greater than 50 MVA;

Note 1: In the hierarchical application of the RTP definition, exclusions have precedence over inclusions with the exception of Inclusion I6. An Element included under Inclusion I6 cannot be excluded under exclusions E1, E2, E3 or E4 of the RTP definition.

Exclusions:

- E1: Radial systems. A radial system is a group of contiguous Transmission Elements that emanates from a single point of connection at a voltage of 300 kV or higher, and:
 - Only serves Load, or
 - Only includes generation resources not identified in Inclusions I2, I3, or I4 with an aggregate capacity less than or equal to 75 MVA (gross nameplate rating), or
 - Where the radial system serves Load and includes generation resources not identified in Inclusions I2, I3, or I4 with an aggregate capacity of non-retail generation less than or equal to 75 MVA (gross nameplate rating).
 - **Note 1**: A normally open switching device between radial systems does not affect this exclusion unless that switching device can be used to transfer bulk power among the various parts of the Main Transmission System.
 - **Note 2**: The presence of a contiguous loop, operated at a voltage level of 50 kV or less between two configurations being considered as radial systems, does not affect this exclusion.
- **E2:** A generating unit or multiple generating units on the customer's side of the retail meter that serve all or part of the retail Load with electric energy if: i) the net capacity provided to the RTP does not exceed 75 MVA, and ii) standby, back-up, and maintenance power services are provided to the generating unit or multiple generating units or to the retail Load by a Balancing Authority, or provided pursuant to a binding obligation with a Generator Owner or Generator Operator, or under terms approved by the applicable regulatory authority.
- E3: Local networks. A local network is a group of contiguous Transmission

Elements operated at less than 700 kV that transfer power to a Load rather than transfer power among the parts of the Main Transmission System. A local network is supplied from multiple points of connection at 300 kV or higher to improve the level of service to retail customers, and not to ensure power transfer between the Main Transmission System. The local network is characterized by all of the following:

- Limits on connected generation: A local network and its Elements do not include generation resources identified in Inclusion I2, I3, or I4, and their aggregate capacity of non-retail generation is not more than 75 MVA (gross nameplate rating).
- **E4**: Reactive Power devices installed solely for meeting the needs one or more retail customers.

Note 1: Elements may be included or excluded on a case-by-case basis through the exception process, when requested by a Registered Entity.

Note 2: All capitalized terms and acronyms in this document are defined in the *Glossary* of *Terms and Acronyms used in Reliability Standards*.

Note 3: Consult the *Reference document on Main Transmission System definition* for additional clarification (hyperlink forthcoming).

Version History

Version	Date	Action	Change Tracking
1	Month xx, 20xx	New RTP definition. Acknowledged by the Régie in Decision D-xxxx-yyy.	First release
1	Month xx, 20xx	Effective date	