



Main Transmission System

# *Annual Self-declaration for Registered Entities – Guideline*

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**Reliability Coordinator for Québec**

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**Version 1.0**

## Preface

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**This reference document was prepared by the Reliability Coordinator for Québec (the “Coordinator”) to support the entities covered by the Reliability Standards in the application of the definition of the Main Transmission System (Réseau de transport principal, or RTP) and in the preparation of their annual self-declaration. This document must be read in conjunction with the full definition, presented in the *Glossary of Terms and Acronyms Used in Reliability Standards*. These documents can be viewed on the Reliability Coordinator’s website.**

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**Hydro-Québec | Direction principale – Contrôle des mouvements d’énergie et exploitation du réseau | Reliability Coordinator for Québec**

## Version history

Version	Reason for the modification	Date
1.0	First release. Acknowledged by the Régie in Decision D-2023-128.	November 6, 2023
1.0	Effective date	July 1 <sup>st</sup> , 2024

## Associated documents

Document title
Definition of Main Transmission System
Annual self-declaration form
RTP Exception Request form
Reference document on Main Transmission System definition
Annual Self-declaration for Registered Entities – Guideline

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# Introduction

While drafting the Main Transmission System definition<sup>1</sup>, the Coordinator drew on the available documentation to interpret the Bulk Electric System (BES) definition of the North American Electric Reliability Corporation (NERC). The Coordinator has prepared this document for Registered Entities to guide them in the preparation of their annual self-declaration.

## Opening statement

This document does not represent an official position of the Coordinator or of the Régie de l'énergie du Québec (the "Régie"), and it does not bind compliance monitoring decisions. This document is a Coordinator notice meant to guide Registered Entities in their own determination of Elements that are part of the Main Transmission System (RTP) and must not be interpreted as normative.

## History

On May 14, 2020, the Régie rendered its Decision D-2020-052<sup>2</sup>, in which it accepted the Coordinator's request to submit a methodology to determine the Elements which are part of the Main Transmission System (RTP) (the "Methodology"), in order to ensure that all Elements necessary for the reliability of the Québec Interconnection are subject to the Reliability Standards developed by NERC. The Régie took note of the definition of the Main Transmission System (RTP) and of the Methodology on November 6, 2023, in Decision D-2023-128<sup>3</sup>.

## Purpose

The main purpose of this document is to assist Registered Entities in the preparation of their annual self-declaration. It is their responsibility to act in a consistent, non-discriminatory manner and in the public interest when the mandatory reliability regime is applied.

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<sup>1</sup>Main Transmission System (RTP) definition, <https://www.hydroquebec.com/data/transenergie/pdf/main-transmission-system-definition.pdf>.

<sup>2</sup>Régie's decision D-2020-052, [http://publicsde.regie-energie.qc.ca/projets/486/DocPrj/R-4073-2018-A-0013-Dec-Dec-2020\\_05\\_14.pdf](http://publicsde.regie-energie.qc.ca/projets/486/DocPrj/R-4073-2018-A-0013-Dec-Dec-2020_05_14.pdf) (in French only)

<sup>3</sup>Régie's decision D-2023-128, [https://www.regie-energie.qc.ca/fr/participants/dossiers/R-4190-2022/doc/R-4190-2022-A-0031-Dec-Dec-2023\\_11\\_06.pdf](https://www.regie-energie.qc.ca/fr/participants/dossiers/R-4190-2022/doc/R-4190-2022-A-0031-Dec-Dec-2023_11_06.pdf) (in French only).

## Self-declaration content

For each Element included in the RTP, the Coordinator proposes the self-declaration be carried out in three steps.

### Step 1: Determine the Element's category

The first step consists in identifying the category of the Element included according to the following table:

<b>Element category</b>	<b>Applicable subcategories</b>					
<b>Generation Facility</b>	Hydroelectric turbine	Wind turbine	Photovoltaic cell	Energy storage	Combustion	Other
<b>Circuit</b>	AC line	DC line	Transformer	Variable-frequency transformer	Phase-shifting transformer	Substation
<b>Direct current (DC) converter</b>	–	–	–	–	–	–
<b>Reactive power device</b>	Capacitor	Reactor	Static compensator (SVC)	Synchronous compensator (StatCom)	Other	–
<b>System</b>	–	–	–	–	–	–

## **Step 2: Determine whether the definition applies**

The second step consists in determining, for each Element retained in step 1, which criteria of the RTP definition apply, including both inclusions and exclusions. Each Element can be subject to multiple criteria of the RTP definition. In the hierarchical application of the RTP definition, exclusions have precedence over inclusions, except for Inclusion I6, which involves certain specificities (set out in the reference document on the RTP definition).

Here are the various RTP definition criteria:

- Basic principle (300 kV criteria)
- Inclusion I1 (transformers and bus bars)
- Inclusion I2 (generators)
- Inclusion I3 (blackstart generation)
- Inclusion I4 (dispersed generation)
- Inclusion I5 (reactive resources)
- Inclusion I6 (interconnections)
- Exclusion E1 (radial Elements)
- Exclusion E2 (non-retail generation)
- Exclusion E3 (local systems)
- Exclusion E4 (reactive resources)

## Step 3: Provide information for each Element

The following pages provide, for each Element category, the information required by the Coordinator in the annual self-declaration.

### Generation Facility

For a generation Facility, the following RTP definition criteria may be applicable:

- Inclusion I2
- Inclusion I3
- Inclusion I4
- Inclusion I6
- Exclusion E2

For each generation Facility that the Registered Entity decides to include in the RTP, the following information is required:

- Confirmation that it is located within the jurisdiction of Québec
- Name of the substation that connects the Facility to the transmission system
- Name of the generation Facility
- Connection voltage (kV) to the transmission system
- Generator type (hydroelectric turbine, wind turbine, photovoltaic cell, energy storage, combustion, other)
- Gross nameplate rating (MVA)
- Relevant comments, if any

Make sure to use the Excel template. Below is an example of a correctly completed table:

Facility name	Element category	Element subcategory	QC jurisdiction?	Applicable Inclusion(s) (I2, I3, I4 and/or I6)	Substation connecting the Element to the transmission system	Connection voltage (kV) to the transmission system	Gross nameplate rating (MVA)
ZYX	Generation Facility	Hydroelectric turbine	Yes	I2	XYZ	120	80
Comments:	No comments						

## Circuit

For a circuit, the following RTP definition criteria may be applicable:

- Basic principle
- Inclusion I1
- Inclusion I6
- Exclusion E1
- Exclusion E3

For each circuit included in the RTP, the following information is required:

- Confirmation that it is located within the jurisdiction of Québec
- Point A
- Point B
- Element name
- Voltage (kV)
- Element subcategory (AC line, DC line, transformer, variable-frequency transformer, phase-shifting transformer, substation, other)
- The Element's gross nameplate rating (MVA) (optional)
- The line ID
- Relevant comments, if any

Make sure to use the Excel template. Below is an example of a correctly completed table:

Line ID	Element category	Element subcategory	QC jurisdiction?	Element included using the basic principle?	Applicable Inclusion(s) (I1 and/or I6)	Point A (substation name)	Point B (substation name)	Voltage (kV)	Gross nameplate rating (MVA) (optional)
L3999	Circuit	AC line	Yes	Yes	None	Substation A	Substation B	315	1,720
Comments:	No comments								

Note 1: If the Element subcategory is a transformer, enter its substation name in the **Point A** column and its primary and secondary voltage levels in the **Voltage (kV)** column.

Note 2: If the Element subcategory is a substation, enter each voltage level applicable to the RTP in the **Voltage (kV)** column.

## Direct current (DC) converter

For a DC converter, the following RTP definition criteria may be applicable:

- Basic principle
- Inclusion I6

For each DC converter included in the RTP, the following information is required:

- Confirmation that it is located within the jurisdiction of Québec
- Name of the substation in which the Element is located
- Converter name
- Connection voltage (kV) to the AC transmission system
- Element's gross nameplate rating (MVA) (optional)
- Relevant comments, if any

Make sure to use the Excel template. Below is an example of a correctly completed table:

<b>Converter name</b>	<b>Element category</b>	<b>QC jurisdiction?</b>	<b>Element included using the basic principle?</b>	<b>Applicable Inclusion (I6)</b>	<b>Substation name</b>	<b>Connection voltage (kV) to the transmission system</b>	<b>Gross nameplate rating (MVA) (optional)</b>
XYZ	DC converter	Yes	Yes	I6	Substation A	315	
Comments:	No comments						

## Reactive power device

For a reactive power device, the following RTP definition criteria may be applicable:

- Basic principle
- Inclusion I5
- Inclusion I6
- Exclusion E4

For each reactive power device included in the RTP, the following information is required:

- Confirmation that it is located with the jurisdiction of Québec
- Substation name in which the Element is located
- Device name (or ID)
- Connection voltage of the substation and the Element
- Element's equipment subcategory (capacitor, reactor, static compensator (SVC), synchronous compensator (StatCom), other)
- Element's gross nameplate rating (MVA or Mvar) (optional)
- Relevant comments, if any

Make sure to use the Excel template. Below is an example of a correctly completed table:

Element name	Element category	Element subcategory	QC jurisdiction?	Element included using the basic principle?	Applicable Inclusion(s) (I5 and/or I6)	Substation name	Connection voltage (kV)	Gross nameplate rating (MVA or Mvar)
XL 1234	Reactive power device	Reactor	Yes	No	I5	Substation A	120	330
Comments:	No comments							

## System

For a system, there is no applicable RTP definition criteria *per se*. This Element category enables the identification of systems used for the distribution of electricity at an operating voltage below 44 kV.

For each system included in the RTP, the following information is required:

- Confirmation that it is located within the jurisdiction of Québec
- System name<sup>1</sup>
- Connection voltage (kV) of the system to the transmission system
- Relevant comments, if any

Make sure to use the Excel template. Below is a completed table example:

<b>System name</b>	<b>Element category</b>	<b>QC jurisdiction?</b>	<b>Connection voltage (kV) to the transmission system</b>
System of (Entity A)	System	Yes	120
Comments:	No comments		

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<sup>1</sup> If the system does not have a specific name, enter the name of the owning entity or the connected transmission substation.