
Project QC-2023-02

2022 annual statutory update of the Register of Entities subject to Reliability Standards

System as of October 1, 2022

1. INTRODUCTION

1.1. Regulatory context

In compliance with Section 85.13 of the Act Respecting the Régie de l'énergie (hereinafter the "Law"), the Reliability Coordinator in Québec (hereinafter the "Coordinator") submits to the Régie de l'énergie (hereinafter the "Régie") for approval, the Register of Entities subject to Reliability Standard (hereinafter the "Register").

Pursuant to Decision D-2018-149,¹ the Coordinator set December 1 of every calendar year as the date of the annual statutory update of the Register. This filing is for the statutory annual update of the Register for the year 2022.

1.2. Content of This filing

The purpose of this document is to reflect additions and modifications to the information on the facilities of Registered Entities since the last annual filing under filing R-4179-2021². The changes proposed by the Coordinator reflect the development of the Transmission System between October 2, 2021, and October 1, 2022.

The Coordinator deems it appropriate to proceed with a public consultation in order to validate the proposed modifications with the concerned Registered Entities in a public and transparent manner. This approach also allows concerned Registered Entities to identify other changes that may be required to the Register, such as a change to the legal name of an entity or the transfer of a facility from one entity to another.

This filing also seeks to respond to the request of the Régie in paragraph 53 of decision D-2022-146³, described in the following table:

¹ Régie de l'énergie, Decision D-2018-149, retrieved March 5, 2021, from http://publicsde.regie-energie.qc.ca/projets/346/DocPrj/R-3952-2015-A-0062-Dec-Dec-2018_10_23.pdf (in French only)

² Filing R-4179-2021 of the Régie, retrieved February 8, 2023, from http://publicsde.regie-energie.qc.ca/_layouts/publicsite/ProjectPhaseDetail.aspx?ProjectID=608&phase=1&Provenance=A&generate=true (in French only)

³ Régie de l'énergie, Decision D-2022-146, par. 53, retrieved February 3, 2023, from http://publicsde.regie-energie.qc.ca/projets/608/DocPrj/R-4179-2021-A-0025-Dec-Dec-2022_12_06.pdf#page=17 (in French only)

Decision	Par.	Description	Answer
D-2022-146	53 ⁴	In view of the foregoing, the Régie requests that the Coordinator file, in the next statutory update of the Register, pursuant to paragraph 41 of decision D-2021-110, additional evidence on the relevance and fairness to the Registered Entities, whose facilities will be subject to modifications in their registration to the Register, of the fact that the Coordinator applies, for this type of facility, an effective date determined on a case-by-case basis. The Régie expects that the Coordinator will conduct a public consultation with the Registered Entities prior to this filing.	See section 3 of this document.

2. MODIFICATIONS TO THE REGISTER

The Coordinator presents in the following sections and subsections, the proposed changes to the Register as part of the 2022 annual statutory update.

2.1. Appendix A – Entities

The Coordinator proposes to remove certain information from Appendix A that is dependent on the application of Reliability Standards. The Coordinator agrees with the Régie that the listing of an entity, its NERC function(s), and its facilities is necessary and sufficient to link the Registered Entities to the applicable Reliability Standards⁵. The following subsections outline the Coordinator's proposed changes.

2.1.1. Removal of the column on the facility / equipment required for system restoration

In its Decision D-2011-068, the Régie required the Coordinator to identify Registered Entities with facilities or equipment required for System restoration. However, a refinement of the understanding of the applicability of Reliability Standards has taken place since the above decision. This understanding has evolved in that the application of standards cannot be reconciled with maintaining certain information in the Registry. In addition, an entity should not use the Register to avoid or delay compliance with Reliability Standards.

⁴ Régie de l'énergie, Decision D-2022-146, par. 53, retrieved February 3, 2023, from http://publicsde.regie-energie.qc.ca/projets/608/DocPrj/R-4179-2021-A-0025-Dec-Dec-2022_12_06.pdf#page=17 (in French only)

⁵ See paragraph 166 of decision D-2011-068, retrieved February 7, 2023, from <http://www.regie-energie.qc.ca/audiences/decisions/D-2011-068.pdf#page=41> (in French only)

The EOP-005 and EOP-006 standards cover the processes of system restoration, through these standards, the Transmission Operator (TOP) must identify the Blackstart Resources of the TOP's System. However, the various communication procedures between the TOP, the RC and the Registered Entities included in the system restoration plan are in the standards. The Register is not a part of these different communication methods and it is preferable that it does not include this information, which could lead to confusion as to the responsibility of a Registered Entity on the system restoration. In sum, the Coordinator believes that the information on System restoration should be removed from the Register, since it is part of the application of Reliability Standards. The Coordinator also points out that the removal of this information should be done in a Register update filing rather than in a standard modification filing since the removal has no impact on compliance nor application of standards EOP-005 or EOP-006.

2.1.2. Removal of the column on underfrequency load shedding program (owns/operate)

Per its Decision D-2015-059, par. 779⁶, the Régie requested that the Coordinator add the identification of Registered Entities that own or operate an underfrequency load shedding program (hereinafter, the "DSF program") to the Register.

This request was initially made in response to the application of Reliability Standards PRC-007, PRC-008 and PRC-009. However, these standards were never in effect in Québec and therefore the information in the Register never fulfilled its original purpose. As of February 2023, PRC-006-5 and PRC-006-NPCC-2 are the two (2) effective Reliability Standards in Québec for design and documentation of DSF programs. These two (2) standards did not initially motivate the presence of information identifying entities owning or operating a DSF program in the Register.

The Coordinator believes that maintaining this information in the Register may lead to confusion and misapplication of the relevant Reliability Standards. Indeed, it has been brought to the attention of the Coordinator that Generator Owners (GOs) may believe that they are not covered by PRC-006-NPCC-2, particularly since the column in the Register "Underfrequency load shedding program (DSF) (Own/Operates)" indicates, "No" for all GOs except Hydro-Québec.

Therefore, in order to promote cooperation among Registered Entities, facilitate the application of the relevant Reliability Standards and avoid potential confusion that could adversely affect the reliability of the System, the Coordinator proposes to remove this information from the Register.

Furthermore, the Coordinator believes that this removal from the Register should be addressed in a statutory annual update of the Register to clarify and demonstrate that the information in

⁶ Régie de l'énergie, Decision D-2015-059, par. 779, retrieved February 3, 2023, from <http://www.regie-energie.qc.ca/audiences/decisions/D-2015-059.pdf#page=187> (in French only)

the Register about the DSF program is independent of the application of the PRC-006 Reliability Standards and that its removal does not impact the application of these standards.

2.1.3. Removal of the column on Undervoltage Load Shedding Program (owns/operate)

For the "Undervoltage Load Shedding Program (DST) (Owns/Operates)" column in Appendix A of the Register, the Coordinator notes that this column does not add any value to the application of Reliability Standards or to the Register. In fact, the column is marked "No" for all Registered Entities.

The UVLS program column was listed in the Register as a result of Régie's decision D-2015-059, par. 776. This listing was in response to identification needs for the application of Reliability Standards PRC-010, PRC-011, PRC-021 and PRC-022. However, to date, only standard PRC-010 is still effective in Québec and there is currently no Registered Entity that owns or operates a UVLS program in Québec. In sum, the same reasons for removing the UVLS program column are applicable since there is a possibility of confusion in the application of Reliability Standards and the responsibility for applying Reliability Standards should be applied to Registered Entities affected by them.

2.2. Appendix B – Transmission Facilities

The Coordinator presents the proposed modifications to Appendix B – Transmission Facilities under the following three (3) subsections: One section for added facilities, one section for modified facilities and another section for the removed facilities from the Register.

2.2.1. Added Transmission Facilities to Appendix B

The following table reflects all proposed additions to the Register and to the RTP by the Coordinator.

Entity	Facility	Rationale for addition to the Register	Proposed effective date
HQ	L3128	<p>Line L3128 is a new 315 kV Transmission Line connecting Romaine-3 and Romaine-4 generating substations. This line is included in the RTP mainly because it carries large quantities of energy and because it incorporates an important generating facility (Romaine-3) with impacts on the following reliability parameter:</p> <ul style="list-style-type: none"> Frequency control 	Upon approval of the Register by the Régie.

Entity	Facility	Rationale for addition to the Register	Proposed effective date
HQ	Baie St-Paul	<p>Baie St-Paul substation has voltage levels of 315 kV and 25 kV. the 315 kV portion of the substation provides control of the following parameter :</p> <ul style="list-style-type: none"> Power flows within operating limits <p>The voltage level of 315 kV is included in the RTP.</p>	Upon approval of the Register by the Régie.
HQ	Romaine-4 (generator substation)	It is the generator substation of the Romaine-4 generating facility. The motives for inclusion are the same as for line L3128.	Upon approval of the Register by the Régie.

2.2.2. Modifications to Transmission Facilities in Appendix B

The following table shows the modifications to the registration of Transmission facilities currently listed in the Register.

Entity	Facility	Nature of modification	Rationale for the facility modification in the Register	Proposed effective date
HQ	Farnham	Removal of the 25 kV capacitors	<p>The capacitors no longer meet any of the RTP reliability parameters.</p> <p>This equipment had an impact on voltage control of Tie Line L1429. However, improvements that increase the robustness of the System in this sector now make it possible to remove this equipment from the RTP.</p>	Upon approval of the Register by the Régie.
HQ	Bedford	Removal of the 25 kV capacitors	<i>Same as Farnham.</i>	Upon approval of the Register by the Régie.

Entity	Facility	Nature of modification	Rationale for the facility modification in the Register	Proposed effective date
HQ	Romaine-3 (generator substation)	Addition of RTP voltage level of 13,8 kV	The Coordinator notes that there is a typo in the column on RTP voltage levels for this facility. In fact, the 13.8 kV voltage level is currently missing from the Register. The Coordinator proposes to correct the typo by adding the 13.8 kV voltage level to the RTP voltage levels column.	Upon approval of the Register by the Régie.

2.2.3. Removal of Transmission Facilities in Appendix B

The following table reflects the Coordinator's proposal for withdrawals of Transmission facilities from the Register and the RTP.

Facility	Rationale for removal from the Register	Proposed effective date
L1291-1 et L1292-1	<p>In filing R-4154-2021⁷, the Coordinator added lines L1291-1 and L1292-1 to the Register. The Coordinator's rationale for these additions was that these lines are segmentations of lines L1291 and L1292 respectively.</p> <p>After further analysis and questions from the entity owning these lines, the Coordinator wishes to reconsider his initial rationale.</p> <p>Indeed, the Coordinator notes that it is preferable to keep only the registration of the line without differentiating its segments. In this way, it would be understood that the entire line is included in the Register and not just the segments that are listed. To this end, if for any reason a line segment should be excluded from the RTP, the Coordinator believes that this information should be recorded in the facility "Specificities" column.</p>	Upon approval of the Register by the Régie

⁷ Filing R-4154-2021 of the Régie, retrieved October 27, 2022, from <http://publicsde.regie-energie.qc.ca/layouts/publicsite/ProjectPhaseDetail.aspx?ProjectID=580&phase=1&Provenance=A&generate=true> (in French only)

Facility	Rationale for removal from the Register	Proposed effective date
Saint-Sébastien	<p>This substation doesn't respond to any RTP reliability parameters.</p> <p>This facility had an impact on voltage control of Tie Line L1429. However, improvements that increase the robustness of the System in this sector now make it possible to remove this facility from the RTP.</p>	Upon approval of the Register by the Régie
Iberville	Same as Saint-Sébastien	Upon approval of the Register by the Régie
L1424	Same as Saint-Sébastien	Upon approval of the Register by the Régie
L1428	Same as Saint-Sébastien	Upon approval of the Register by the Régie

2.3. Appendix C – Generating facilities

The Coordinator is proposing modifications to Appendix C of the Register. The following subsections outline these modifications.

2.3.1. Added generating facility to Appendix C

The following table reflects the Coordinator's proposed addition to Appendix C of the Register.

Entity	Facility	Rationale for addition to the Register	Proposed effective date
HQ	Romaine-4	<p>New generating facility of Hydro-Québec with an installed capacity of 302 MVA distributed over two (2) generating units of 151 MVA. This facility has an impact on the following reliability parameters:</p> <ul style="list-style-type: none"> • Generation/load balancing • Frequency control • Level of operating reserves <p>The Coordinator proposes to add this generation facility to the RTP.</p>	Dès l'approbation du Registre par la Régie.

2.3.2. Modification to generating facilities in Appendix C

The Coordinator has conducted a review of the installed capacity of the various generating facilities listed in the Register. In total, the Coordinator proposes to modify the listed capacity values for twenty (20) generating facilities.

The Coordinator presents the changes in installed capacity values in the table of Appendix A to this document.

2.3.2.1. Proposal to remove decrees from the Register

The Register currently contains thirteen (13) generating facilities with a specificity referring to a decree, an authorization certificate or an agreement. The Coordinator has conducted a review of these decrees, analyzed their relevance to the Register and concluded that their removal from the Register is preferable to their retention. The following paragraphs present the Coordinator's analysis.

2.3.2.1.1. The capacity registered in the decrees

The Coordinator notes that all the decrees mention the value of capacity in Real Power (MW), whereas the Register indicates a value in apparent power (MVA). However, the Québec reliability model includes generation facilities according to their gross installed capacity rating in apparent power (MVA), and the same is true for neighbouring systems with the application of the BES definition. Since the power factors differentiating Real Power from apparent power in a generating facility vary according to several conditions, the Coordinator believes that the listing of decrees in the Register may be a source of error or misunderstanding, since the references to decrees currently listed in the Register are in MVA whereas the official documents are in MW.

2.3.2.1.2. The capacity limitation

The Coordinator also notes that the "Specificities" column of the Register refers to a capacity limitation listed in the decrees. However, upon reading the various decrees, there is no capacity limitation except for decree #297-94 for the Saint-Marguerite-3 generating facility. The Coordinator is therefore of the opinion that the information in the Register does not adequately convey the information in the decrees.

2.3.2.1.3. Reliability interest

The Coordinator understands that the purpose of the decrees is to authorize projects for the construction of generating facilities. However, in the interest of reliability and regulatory efficiency, the Coordinator believes that reliance should be placed on the gross installed capacity of a generating facility and not on the reference to a government decree. It is the responsibility of the Registered Entities to provide fair and accurate data to ensure the reliability of the Québec power System.

In conclusion, after having considered the three (3) angles of analysis above, the Coordinator proposes to remove the mention of the decrees in the Register. The different decrees and their corresponding facilities are presented in the following table for reference.

Facility name	Decree number, certificate or agreement
Chute-Allard	Decree #379-2005
Eastmain-1	Decree #302-93
Eastmain-1-A	Authorization certificate #3214-10-17
La Grande-3	James Bay and Northern Québec Agreement
Péribonka	Decree #267-2004
Rapide-des-cœurs	Decree #379-2005
Robert-Bourassa/LG4	James Bay and Northern Québec Agreement
Rocher-de-Grand-Mère	Decree #591-2000
Romaine-1	Decree #537-2009
Romaine-2	Decree #537-2009
Romaine-3	Decree #537-2009
Sainte-Marguerite-3	Decree #297-94
Sarcelle	Authorization certificate #3214-10-17

2.3.3. Removal of generating facilities in Appendix C

There is no removal of generating facilities.

3. EFFECTIVE DATE FOR FACILITIES WHOSE REGISTRATION IS MODIFIED

Following paragraph 53 of decision D-2022-146⁸, the Coordinator submits to the Régie a proposal regarding the effective date for facilities whose registration in the Register is modified.

The Coordinator had submitted in response R1.4 to the Régie's request for information no. 2 in file R-4179-2021⁹ that the effective date for facilities whose registration in the Register is modified should be dealt with on a case-by-case basis.

In fact, when a Registered Entity plans to modify a facility so as to change its inclusion in the RTP (e.g., a substation with an initial voltage level of 315 kV included in the RTP has a voltage level of 735 kV added as a result of a project by the Registered Entity), it must inform the Coordinator of this modification. As early as the evaluation phase of a project, a Registered Entity should

⁸ Régie de l'énergie, decision D-2022-146, par. 53, retrieved February 3, 2023, from http://publicsde.regie-energie.qc.ca/projets/608/DocPrj/R-4179-2021-A-0025-Dec-Dec-2022_12_06.pdf#page=17 (in French only)

⁹ Request for information no. 2, answer R1.4 of filing R-4179-2021, retrieved February 7, 2023, from http://publicsde.regie-energie.qc.ca/projets/608/DocPrj/R-4179-2021-B-0031-DDR-RepDDR-2022_06_30.pdf#page=5 (in French only)

determine whether its facility is included in the RTP. The Coordinator has a monitoring role at all times and can always assist an entity in becoming subject to the RTP.

As such, there should be no timeframe between becoming subject to the RTP and the commissioning of the facility. In addition, compliance obligations are enforceable upon commissioning of the facility. A Registered Entity should not use the Register as an excuse to avoid or delay compliance with Reliability Standards, particularly from a public interest perspective. The Coordinator had informed the Régie of this position in Filing R-4095-2018¹⁰ and submits that it is still valid.

In conclusion, the Coordinator proposes to reconsider his proposal submitted in response R1.4 of the Régie's request for information No. 2 in file R-4179-2021¹¹ and instead submit that the effective timeframe for a facility whose registration in the Register is modified must be upon commissioning of the modifications to the facility. The change will be reflected in the Register update following the reporting of the change by the Registered Entity or after the Coordinator is notified of the change.

4. CONCLUSION

Considering the simple form of the modification proposed in this filing, the Coordinator is of the opinion that it is not necessary to provide a translation certificate for them.

In conclusion, the Coordinator is of the opinion that the proposed modifications to the Register are consistent with the provisions of the Law and the relevant requests of the Régie, and that they contribute to the proper functioning of the mandatory reliability regime in Québec.

¹⁰ See section 4 of file HQCF-1, document 1 in filing R-4095-2018, retrieved from http://publicsde.regie-energie.qc.ca/projets/514/DocPrj/R-4095-2019-B-0004-Demande-Piece-2019_07_30.pdf (in French only)

¹¹ Request for information no. 2, answer R1.4 of filing R-4179-2021, retrieved February 7, 2023, from http://publicsde.regie-energie.qc.ca/projets/608/DocPrj/R-4179-2021-B-0031-DDR-RepDDR-2022_06_30.pdf#page=5 (in French only)

5. APPENDIX A – MODIFIED GROSS INSTALLED CAPACITY VALUES

The following table shows the various generating facilities whose current installed capacity value in the Register needs to be modified.

Entity	Facility name	Installed capacity written in the Register (MVA)	Installed capacity to be written in the Register (MVA)	Rationale for modification
HQ	Beauharnois	2270	2277,82	The plant has had several refurbishments in recent years. Several refurbishments since 2010 (the plant has thirty-six (36) generating units)
HQ	Bersimis-2	915	889	An update of the nominal values took place for four (4) generating units)
HQ	Cèdres	150	148,6	The value was initially rounded. The exact value to use is 148.6 MVA.
HQ	Chute-Allard	69	73,8	Adjustment of the nominal value of generating units following a power study.
HQ	Eastmain-1	505	534	Adjustment of the nominal value of the generating units.
HQ	Eastmain-1-A	853	921	Adjustment of the nominal value of the generating units.
HQ	La Grande-3	2425	2544	Power increase studies have been carried out and an adjustment of the nominal value of the generating units has taken place.
HQ	Péribonka	427,8	450,45	Adjustment of the nominal value of the generating units.
HQ	Rapide-2	84	76	Adjustment of the nominal value of the generating units.
HQ	Rapide-7	84	76	Adjustment of the nominal value of the generating units.
HQ	Rapide-Blanc	240	245	La réfection d'un groupe de production en 2021 a permis d'obtenir une augmentation de puissance de 5 MVA.
HQ	Rapide-des-Quinze	128,2	136,2	Power increase studies have been carried out and an adjustment of the nominal value of the generating units has taken place.
HQ	Rapides-des-Cœurs	84,4	96	Adjustment of the nominal value of the generating units.
HQ	Robert-Bourassa	5920	6240	Power increase studies have been carried out and an adjustment of the nominal value of the generating units has taken place.
HQ	Rocher-de-Grand-Mère	255,6	264	Adjustment of the nominal value of the generating units.
HQ	Romaine-1	300	320	Adjustment of the nominal value of the generating units.
HQ	Romaine-2	711	772	Adjustment of the nominal value of the generating units.

Entity	Facility name	Installed capacity written in the Register (MVA)	Installed capacity to be written in the Register (MVA)	Rationale for modification
HQ	Romaine-3	1474	490	The Coordinator is of the opinion that the capacity currently listed in the Register is the source of a typo.
HQ	Sainte-Marguerite-3	928,4	930	The exact value to use is 930 MVA.
HQ	Sarcelle	166,7	177	The value of 166.7 MVA does not represent the installed capacity of the generating facility.