

A. Introduction

1. **Title:** Coordination Among Reliability Coordinators
2. **Number:** IRO-014-3
3. **Purpose:** To ensure that each Reliability Coordinator's operations are coordinated such that they will not adversely impact other Reliability Coordinator Areas and to preserve the reliability benefits of interconnected operations.
4. **Applicability:**
 - 4.1. Reliability Coordinator
5. **Effective Date**

See Implementation Plan.
6. **Background:**

See Project 2014-03 [project page](#).

B. Requirements and Measures

- R1. Each Reliability Coordinator shall have and implement Operating Procedures, Operating Processes, or Operating Plans, for activities that require notification or coordination of actions that may impact adjacent Reliability Coordinator Areas, to support Interconnection reliability. These Operating Procedures, Operating Processes, or Operating Plans shall include, but are not limited to, the following: *[Violation Risk Factor: Medium] [Time Horizon: Operations Planning, Same-Day Operations]*
 - 1.1. Criteria and processes for notifications.
 - 1.2. Energy and capacity shortages.
 - 1.3. Control of voltage, including the coordination of reactive resources.
 - 1.4. Exchange of information including planned and unplanned outage information to support its Operational Planning Analyses and Real-time Assessments.
 - 1.5. Provisions for periodic communications to support reliable operations.
- M1. Each Reliability Coordinator shall have available the latest approved documented version of its Operating Procedures, Operating Processes, and Operating Plans that require notifications, or the coordination of actions among impacted Reliability Coordinators for conditions or activities that may impact adjacent Reliability Coordinator Areas. This documentation shall include dated, current in force documentation with the specified elements, and notes from periodic communications.
- R2. Each Reliability Coordinator shall maintain its Operating Procedures, Operating Processes, or Operating Plans identified in Requirement R1 as follows: *[Violation Risk Factor: Low] [Time Horizon: Operations Planning, Same-Day Operations]*

- 2.1.** Review and update annually with no more than 15 months between reviews.
 - 2.2.** Obtain written agreement from all of the Reliability Coordinators required to take the indicated action(s) for each update.
 - 2.3.** Distribute to all Reliability Coordinators that are required to take the indicated action(s) within 30 days of an update.
- M2.** Each Reliability Coordinator shall have dated evidence that its Operating Procedures, Operating Processes, and Operating Plans that require one or more other Reliability Coordinators to take action were maintained as specified. This evidence may include but is not limited to dated documentation with confirmation of receipt, dated notice of acceptance or agreement to take specified actions, or dated electronic communications with confirmation of receipt and acceptance or agreement to take specified actions.
- R3.** Each Reliability Coordinator, upon identification of an expected or actual Emergency in its Reliability Coordinator Area, shall notify other impacted Reliability Coordinators. *[Violation Risk Factor: Medium] [Time Horizon: Operations Planning, Same Day Operations, Real-time Operations]*
- M3.** Each Reliability Coordinator shall have and provide evidence which may include but is not limited to operator logs, voice recordings, or transcripts of voice recordings, electronic communications, or equivalent dated documentation, that will be used to determine that it, upon identification of an expected or actual Emergency in its Reliability Coordinator Area, notified other impacted Reliability Coordinators.
- R4.** Each impacted Reliability Coordinator shall operate as though the Emergency exists during each instance where Reliability Coordinators disagree on the existence of an Emergency. *[Violation Risk Factor: High] [Time Horizon: Operations Planning, Same-Day Operations, Real-time Operations]*
- M4.** Each Reliability Coordinator shall have and provide evidence which may include but is not limited to operator logs, voice recordings or transcripts of voice recordings, electronic communications, or equivalent documentation, that will be used to determine that it operated as though an Emergency existed during each instance where Reliability Coordinators disagreed on the existence of an Emergency.
- R5.** Each Reliability Coordinator that Identifies an Emergency in its Reliability Coordinator Area shall develop an action plan to resolve the Emergency during those instances where impacted Reliability Coordinators disagree on the existence of an Emergency. *[Violation Risk Factor: High][Time Horizon: Operations Planning, Same-Day Operations, Real-time Operations]*
- M5.** Each Reliability Coordinator that identifies an Emergency in its Reliability Coordinator Area shall have evidence that it developed an action plan during those instances where impacted Reliability Coordinators disagreed on the existence of an Emergency. This evidence may include but is not limited to operator logs, voice recordings or

transcripts of voice recordings, electronic communications, or equivalent dated documentation.

- R6.** Each impacted Reliability Coordinator shall implement the action plan developed by the Reliability Coordinator that identifies the Emergency during those instances where Reliability Coordinators disagree on the existence of an Emergency, unless such actions would violate safety, equipment, regulatory, or statutory requirements. *[Violation Risk Factor: High][Time Horizon: Operations Planning, Same-Day Operations, Real-time Operations]*
- M6.** Each impacted Reliability Coordinator shall have and provide evidence which may include but is not limited to operator logs, voice recordings or transcripts of voice recordings, electronic communications, or equivalent dated documentation, that will be used to determine that it implemented the action plan developed by the Reliability Coordinator who identifies the Emergency when Reliability Coordinators disagree on the existence of an Emergency unless such actions would have violated safety, equipment, regulatory, or statutory requirements.
- R7.** Each Reliability Coordinator shall assist Reliability Coordinators, if requested and able, provided that the requesting Reliability Coordinator has implemented its emergency procedures, unless such actions cannot be physically implemented or would violate safety, equipment, regulatory, or statutory requirements. *[Violation Risk Factor: High][Time Horizon: Real-time Operations]*
- M7.** Each Reliability Coordinator shall make available upon request, evidence that requested assistance was provided, if able, to requesting Reliability Coordinators unless such actions could not be physically implemented or would violate safety, equipment, regulatory, or statutory requirements. Such evidence could include but is not limited to dated operator logs, voice recordings or transcripts of voice recordings, electronic communications, or other equivalent evidence in electronic or hard copy format. If such a situation has not occurred, the Reliability Coordinator may provide an attestation.

C. Compliance

1. Compliance Monitoring Process

1.1. Compliance Enforcement Authority

As defined in the NERC Rules of Procedure, “Compliance Enforcement Authority” (CEA) means NERC or the Regional Entity in their respective roles of monitoring and enforcing compliance with the NERC Reliability Standards.

1.2. Compliance Monitoring and Assessment Processes:

As defined in the NERC Rules of Procedure, “Compliance Monitoring and Assessment Processes” refers to the identification of the processes that will be used to evaluate data or information for the purpose of assessing performance or outcomes with the associated reliability standard.

1.3. Data Retention

The Reliability Coordinator shall keep data or evidence to show compliance as identified below unless directed by its Compliance Enforcement Authority to retain specific evidence for a longer period of time as part of an investigation:

- Each Reliability Coordinator shall retain its current, in force document and any documents in force since the last compliance audit for Requirements R1 and R2 and Measures M1 and M2.
- Each Reliability Coordinator shall retain its most recent 12 months of evidence for Requirement R5 and Measure M5.
- Each Reliability Coordinator shall retain 3-calendar years plus current calendar year of evidence for Requirement R6 and Measure M6.
- Each Reliability Coordinator shall retain evidence for 90-calendar days for operator logs and voice recordings and for the period since the last compliance audit for other evidence for Requirements R3, R4, and R7 and Measures M3, M4, and M7.

If a Reliability Coordinator is found non-compliant, it shall keep information related to the non-compliance until found compliant, or for the time period specified above, whichever is longer.

The Compliance Enforcement Authority shall keep the last audit records and all requested and submitted subsequent audit records.

1.4 Additional Compliance Information

None

Table of Compliance Elements

R #	Time Horizon	VRF	Violation Severity Levels			
			Lower VSL	Moderate VSL	High VSL	Severe VSL
R1	Operations Planning, Same-Day Operations	Medium	The Reliability Coordinator has Operating Procedures, Operating Processes, or Operating Plans in place for activities that require notification or coordination of actions with impacted adjacent Reliability Coordinators to support Interconnection reliability but failed to address one of the topical areas identified in Parts 1.1 through 1.5.	The Reliability Coordinator has Operating Procedures, Operating Processes, or Operating Plans in place for activities that require notification, or coordination of actions with impacted adjacent Reliability Coordinators to support Interconnection reliability but failed to address two of the topical areas identified in Parts 1.1 through 1.5.	The Reliability Coordinator has Operating Procedures, Operating Processes, or Operating Plans in place for activities that require notification, or coordination of actions with impacted adjacent Reliability Coordinators to support Interconnection reliability but failed to address three of the topical areas identified in Parts 1.1 through 1.5.	The Reliability Coordinator failed to have Operating Procedures, Operating Processes, or Operating Plans in place for activities that require notification, or coordination of actions with impacted adjacent Reliability Coordinators to support Interconnection reliability. OR, The Reliability Coordinator failed to implement its Operating Procedures, Operating processes, or Operating Plans when activities required notification, or coordination of actions with impacted adjacent Reliability Coordinators to support

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R #	Time Horizon	VRF	Violation Severity Levels			
			Lower VSL	Moderate VSL	High VSL	Severe VSL
						Interconnection reliability.
R2	Operations Planning, Same-Day Operations	Lower	N/A	The Reliability Coordinator has Operating Procedures, Operating Processes, or Operating Plans identified in Requirement R1 but failed to address one of the parts specified in Requirement R2.	The Reliability Coordinator has Operating Procedures, Operating Processes, or Operating Plans identified in Requirement R1 but failed to address two of the parts specified in Requirement R2.	The Reliability Coordinator has Operating Procedures, Operating Processes, or Operating Plans identified in Requirement R1 but failed to address all three of the parts specified in Requirement R2.
<p>For the Requirement R3 VSLs only, the intent of the SDT is to start with the Severe VSL first and then to work your way to the left until you find the situation that fits. In this manner, the VSL will not be discriminatory by size. If a Reliability Coordinator has just one affected reliability entity to inform, the intent is that that situation would be a Severe violation.</p>						
R3	Operations Planning, Same-Day Operations, Real-time Operations	Medium	The Reliability Coordinator did not notify one other impacted Reliability Coordinator upon identification of an expected or actual Emergency in its Reliability Coordinator Area.	The Reliability Coordinator did not notify two other impacted Reliability Coordinators upon identification of an expected or actual Emergency in its Reliability Coordinator Area.	The Reliability Coordinator did not notify three other impacted Reliability Coordinators upon identification of an expected or actual Emergency in its Reliability Coordinator Area.	The Reliability Coordinator did not notify four or more other impacted Reliability Coordinators upon identification of an expected or actual Emergency in its Reliability Coordinator Area.

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R #	Time Horizon	VRF	Violation Severity Levels			
			Lower VSL	Moderate VSL	High VSL	Severe VSL
R4	Operations Planning, Same-Day Operations, Real-time Operations	High	N/A	N/A	N/A	The Reliability Coordinator failed to operate as though the Emergency existed during an instance where Reliability Coordinators disagreed on the existence of an Emergency.
R5	Operations Planning, Same-Day Operations, Real-time Operations	High	N/A	N/A	N/A	The Reliability Coordinator that identifies the Emergency in its Reliability Coordinator Area failed to develop an action plan to resolve the Emergency during an instance where impacted Reliability Coordinators disagreed on the existence of Emergency.
R6	Real-time Operations, Same-Day Operations	High	N/A	N/A	N/A	The impacted Reliability Coordinator failed to implement the action plan developed by the Reliability Coordinator that identifies the

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R #	Time Horizon	VRF	Violation Severity Levels			
			Lower VSL	Moderate VSL	High VSL	Severe VSL
						Emergency during an instance where Reliability Coordinators disagreed on the existence of the Emergency.
R7	Real-time Operations	High	N/A	N/A	N/A	The Reliability Coordinator did not provide assistance to Reliability Coordinators, if requested and able, provided that the requesting Reliability Coordinator had implemented its emergency procedures, unless such actions could not physically be implemented or would have violated safety, equipment, regulatory, or statutory requirements.

D. Regional Variances

None.

E. Interpretations

None.

F. Associated Documents

Operating Plan - An Operating Plan includes general Operating Processes and specific Operating Procedures. It may be an overview document which provides a prescription for an Operating Plan for the next-day, or it may be a specific plan to address a specific SOL or IROL exceedance identified in the Operational Planning Analysis (OPA). Consistent with the NERC definition, Operating Plans can be general in nature, or they can be specific plans to address specific reliability issues. The use of the term Operating Plan in the revised TOP/IRO standards allows room for both. An Operating Plan references processes and procedures, including electronic data exchange, which are available to the System Operator on a daily basis to allow the operator to reliably address conditions which may arise throughout the day. It is valid for tomorrow, the day after, and the day after that. Operating Plans should be augmented by temporary operating guides which outline prevention/mitigation plans for specific situations which are identified day-to-day in an OPA or a Real-time Assessment (RTA). As the definition in the Glossary of Terms states, a restoration plan is an example of an Operating Plan. It contains all the overarching principles that the System Operator needs to work his/her way through the restoration process. It is not a specific document written for a specific blackout scenario but rather a collection of tools consisting of processes, procedures, and automated software systems that are available to the operator to use in restoring the system. An Operating Plan can in turn be looked upon in a similar manner. It does not contain a prescription for the specific set-up for tomorrow but contains a treatment of all the processes, procedures, and automated software systems that are at the operator's disposal. The existence of an Operating Plan, however, does not preclude the need for creating specific action plans for specific SOL or IROL exceedances identified in the OPA. When a Reliability Coordinator performs an OPA, the analysis may reveal instances of possible SOL or IROL exceedances for pre- or post-Contingency conditions. In these instances, Reliability Coordinators are expected to ensure that there are plans in place to prevent or mitigate those SOLs or IROLs, should those operating conditions be encountered the next day. The Operating Plan may contain a description of the process by which specific prevention or mitigation plans for day-to-day SOL or IROL exceedances identified in the OPA are handled and communicated. This approach could alleviate any potential administrative burden associated with perceived requirements for continual day-to-day updating of "the Operating Plan document" for compliance purposes.

Version History

Version	Date	Action	Change Tracking
1	August 10, 2005	<ol style="list-style-type: none"> 1. Changed incorrect use of certain hyphens (-) to “en dash (–).” 2. Hyphenated “30-day” when used as adjective. 3. Changed standard header to be consistent with standard “Title.” 4. Initial capped heading “Definitions of Terms Used in Standard.” 5. Added “periods” to items where appropriate. 6. Changed “Timeframe” to “Time Frame” in item D, 1.2. 7. Lower cased all words that are not “defined” terms — drafting team, self-certification. 8. Changed apostrophes to “smart” symbols. 9. Added comma in all word strings “Procedures, Processes, or Plans,” etc. 10. Added hyphens to “Reliability Coordinator-to-Reliability Coordinator” where used as adjective. 11. Removed comma in item 2.1.2. 12. Removed extra spaces between words where appropriate. 	January 20, 2006
1	February 7, 2006	Adopted by Board of Trustees	Revised
1	March 16, 2007	Approved by FERC	
2	August 4, 2011	<p>Revised per Project 2006-6; Revised existing requirements for clarity, retired R3 and R4 and incorporated requirements from IRO-015-1 and IRO-016-1 into this standard.</p> <p>Adopted by Board of Trustees</p>	Revised

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3	November 13, 2014	Adopted by Board of Trustees	Revisions under Project 2014-03
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Guidelines and Technical Basis

Rationale:

During development of this standard, text boxes were embedded within the standard to explain the rationale for various parts of the standard. Upon BOT approval, the text from the rationale text boxes was moved to this section.

Rationale for Terminology:

Terminology changed from Adverse Reliability Impact to Emergency for consistency amongst standards. Emergency is a more inclusive term.

Rationale for Requirement R7:

Language added for consistency with proposed TOP-001-3, Requirement R7.

*** FOR INFORMATIONAL PURPOSES ONLY ***

Enforcement Dates: Standard IRO-014-3 — Coordination Among Reliability Coordinators

United States

Standard	Requirement	Enforcement Date	Inactive Date
IRO-014-3	All		

This standard has not yet been approved by the applicable regulatory authority.

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Appendix QC-IRO-014-3 Provisions specific to the standard IRO-014-3 applicable in Québec

This appendix establishes specific provisions for the application of the standard in Québec. Provisions of the standard and of its appendix must be read together for the purposes of understanding and interpretation. Where the standard and appendix differ, the appendix shall prevail.

A. Introduction

1. **Title:** Coordination Among Reliability Coordinators
2. **Number:** IRO-014-3
3. **Purpose:** No specific provision
4. **Applicability:** No specific provision
5. **Effective Date :**
 - 5.1. Adoption of the standard by the Régie de l'énergie: June 16, 2017
 - 5.2. Adoption of the appendix by the Régie de l'énergie: June 16, 2017
 - 5.3. Effective date of the standard and its appendix in Québec: July 1st, 2017
6. **Background :**

No specific provision

B. Requirements and Measures

No specific provision

C. Compliance

1. Compliance Monitoring Process

1.1. Compliance Enforcement Authority

The Régie de l'énergie is responsible, in Québec, for compliance monitoring with respect to the reliability standard and its appendix that it adopts.

1.2. Compliance Monitoring and Assessment Processes

Compliance Audit

Self-Certification

Spot Check

Compliance Investigation

Non-Compliance Self-Reporting

Periodic Data Submittal

Exception Reporting

Investigation following a complaint

1.3. Data Retention

No specific provision

1.4. Additional Compliance Information

No specific provision

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Appendix QC-IRO-014-3

Provisions specific to the standard IRO-014-3 applicable in Québec

2. Table of Compliance Elements

No specific provision

D. Regional Variances

No specific provision

E. Interpretations

No specific provision

F. Associated Documents

The Quebec glossary reference is the “Quebec Reliability Standards Glossary of Terms”.

Guidelines and Technical Basis

No specific provision

Version History

Revision	Date	Action	Change Tracking
0	June 16, 2017	New appendix	New