

October 20, 2015

**VIA ELECTRONIC FILING**

Jim Crone  
Director, Energy Division  
Manitoba Innovation, Energy and Mines  
1200-155 Carlton Street  
Winnipeg MB R3C 3H8

RE: *North American Electric Reliability Corporation*

Dear Mr. Crone:

The North American Electric Reliability Corporation (“NERC”) hereby submits Notice of Filing of the North American Electric Reliability Corporation of Proposed Interconnection Reliability Operations and Coordination Reliability Standards. NERC requests, to the extent necessary, a waiver of any applicable filing requirements with respect to this filing.

NERC understands that the Province of Manitoba enacted on April 1, 2012, the Reliability Standards Regulation, which was implemented through an Order of Council. It is NERC’s understanding that the Reliability Standards Regulation makes compliance with the NERC reliability standards a legal requirement in Manitoba and adopted the NERC Reliability Standards listed in Schedule 1 of the Regulation for implementation in Manitoba. The Regulation further provides that a reliability standard made by NERC that is listed in Schedule 1 is adopted as a reliability standard for Manitoba.

NERC requests that Manitoba take all necessary action to include Proposed Reliability Standards IRO-006-EAST-2 and IRO-009-2 in Schedule 1 of the Reliability Standards Regulation, so that they may be adopted as reliability standards for Manitoba.

Please contact the undersigned if you have any questions.

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Respectfully submitted,

/s/ Holly A. Hawkins

Holly A. Hawkins  
*Associate General Counsel for the North  
American Electric Reliability Corporation*

Enclosure

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**BEFORE THE  
PROVINCE OF MANITOBA**

**NORTH AMERICAN ELECTRIC )  
RELIABILITY CORPORATION )**

**NOTICE OF FILING OF THE  
NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION OF PROPOSED  
INTERCONNECTION RELIABILITY OPERATIONS AND COORDINATION  
RELIABILITY STANDARDS**

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October 20, 2015

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## I. EXECUTIVE SUMMARY

As outlined above, NERC is proposing two Interconnection Reliability Operations and Coordination (“IRO”) Reliability Standards that continue the work initiated in two related NERC projects. First, the Project 2012-09 – Interconnection Reliability Operations five-year review team (“FYRT” or “IRO FYRT”) performed a periodic review of existing IRO standards and made recommendations for revision and retirement of a number of those standards.<sup>2</sup> Second, the standard drafting team for Project 2014-03 – Revisions to TOP and IRO Standards further refined the IRO suite of standards by recommending retirement of five IRO standards, leaving only two recommendations from Project 2012-09 to be implemented.<sup>3</sup> The proposed standards that are the subject of this filing represent the standards that were recommended for revision in Project 2012-09 but that were not retired in Project 2014-03.

Proposed Reliability Standard IRO-006-EAST-2 is an improvement to the existing version of the standard because it removes redundant requirements based on Paragraph 81<sup>4</sup> criteria, revises existing language to clearly delineate applicable entities and the specific actions required, and relocates information in bullet points and subparts to the Requirements. Proposed Reliability Standard IRO-009-2 is an improvement to the existing version of the standard because it combines two existing requirements, revises existing language to clearly delineate applicable entities and the specific actions required, and removes unnecessary language. Both

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<sup>2</sup> The standard drafting team for Project 2012-09 recommended retirement of IRO-004-2 and IRO-005-4 and revisions to IRO-001-3, IRO-003-2, IRO-006-EAST, IRO-008-1, IRO-009-1, and IRO-010-1a.

<sup>3</sup> The standard drafting team for Project 2014-03 proposed revisions to IRO-001-3 and recommended retirement of IRO-003-2, IRO-004-2, IRO-005-4, IRO-008-1, and IRO-010-1a. After work in that project was completed, only two standards, IRO-006-EAST-1 and IRO-009-1, were left to be revised from the IRO FYRT recommendations.

<sup>4</sup> In Paragraph 81 of FERC’s *Order Accepting with Conditions the Electric Reliability Organization’s Petition Requesting Approval of New Enforcement Mechanisms and Requiring Compliance Filing*, FERC encouraged NERC to identify requirements in Reliability Standards that would likely provide little protection for Bulk-Power System reliability or may be redundant. Consistent with FERC’s guidance NERC initiated the “P 81 Project” to identify such requirements. See *N. Am. Elec. Reliability Corp.*, 138 FERC ¶ 61,193 at P 81 (2012) (“P 81”).

proposed Reliability Standards implement language revisions and format improvements for consistency with recent Board approved Reliability Standards.<sup>5</sup>

As described above, the proposed standards substantially improve the existing versions, IRO-006-EAST-1 and IRO-009-1, and will retire these standards upon approval.

## **II. NOTICES AND COMMUNICATIONS**

Notices and communications with respect to this filing may be addressed to the following:

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## **III. BACKGROUND**

### **A. NERC Reliability Standards Development Procedure**

The proposed Reliability Standards were developed in an open and fair manner and in accordance with the Reliability Standard development process. NERC develops Reliability Standards in accordance with Section 300 (Reliability Standards Development) of its Rules of Procedure and the NERC Standard Processes Manual.<sup>6</sup> NERC's proposed rules provide for reasonable notice and opportunity for public comment, due process, openness, and a balance of

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<sup>5</sup> The standard drafting team for Project 2015-06 found that Requirements R3 and R4 of IRO-009-1 should be revised for consistency with Requirement R14 of TOP-001-3. Also, the team found that Requirement R5 of IRO-006-EAST-1 should be revised for consistency with Requirement R18 of TOP-001-3.

<sup>6</sup> The NERC *Rules of Procedure*, available at <http://www.nerc.com/AboutNERC/Pages/Rules-of-Procedure.aspx>. The NERC *Standard Processes Manual*, available at [http://www.nerc.com/comm/SC/Documents/Appendix\\_3A\\_StandardsProcessesManual.pdf](http://www.nerc.com/comm/SC/Documents/Appendix_3A_StandardsProcessesManual.pdf).

interests in developing Reliability Standards, and thus satisfy certain of the criteria for approving Reliability Standards. The development process is open to any person or entity with a legitimate interest in the reliability of the Bulk-Power System. NERC considers the comments of all stakeholders, and a vote of stakeholders and the NERC Board is required to approve a Reliability Standard before the Reliability Standard is submitted to the applicable governmental authorities.

## **B. History of Project 2015-06 -- Interconnection Reliability Operations and Coordination**

As described below, proposed Reliability Standards IRO-006-EAST-2 and IRO-009-2 were designed by the Project 2015-06 standard drafting team to address recommendations of the IRO FYRT for improvement of several IRO standards. For a summary of the development history in Project 2015-06 and the complete record of development, see **Exhibit F**.

### **1. IRO-006-EAST-2**

In Order No. 693, the Federal Energy Regulatory Commission (“FERC”) directed NERC to improve Reliability Standard IRO-006-3 to ensure that there is no conflict between the regional and continent-wide standards related to transmission loading relief.<sup>7</sup> On March 3, 2011, NERC submitted a filing for several new IRO standards, and among these, IRO-006-EAST-1 to set transmission loading relief requirements for the Eastern Interconnection to meet the directive from Order No. 693 referenced above. This standard establishes communications and coordination requirements for transmission loading relief procedures relating to Interconnection-wide congestion management procedures and the transfer of power from one Interconnection to another.

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<sup>7</sup> *Mandatory Reliability Standards for the Bulk-Electric System*, Order No. 693 at P 964 (the relevant directive states that FERC “directs the ERO to modify the WECC and ERCOT procedures to ensure consistency with the standard form of the Reliability Standards including Requirements, Measures and Levels of Non-Compliance.”)



The IRO FYRT recommended revisions to IRO-006-EAST and presented a Standard Authorization Request (“SAR”) to the Standards Committee (“SC”) on October 17, 2013 that included these recommendations.<sup>8</sup> On March 11, 2015, the SC accepted the SAR as a precursor for development in Project 2015-06<sup>9</sup>, and as a result of work in that project, the standard drafting team developed proposed Reliability Standard IRO-006-EAST-2. Proposed Reliability Standard IRO-006-EAST-2 is intended to replace IRO-006-EAST-1, because it improves upon existing language by clarifying the applicable entities and the required actions, removing requirements that are included in other Reliability Standards, and relocating existing requirement parts into the main requirement.

## 2. IRO-009-2

In Order No. 693, FERC directed NERC to develop modifications to existing IRO Reliability Standards (i) to ensure that a minimum set of capabilities are made available to the Reliability Coordinator to ensure that it has the capabilities needed to adequately perform its functions<sup>10</sup>, and (ii) to require a next-day analysis to be performed to identify actions that can be implemented and effective within 30 minutes after a contingency.<sup>11</sup>

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<sup>8</sup> See Project 2012-09 Development Page, available at <http://www.nerc.com/pa/stand/pages/project201209iroreview.aspx>.

<sup>9</sup> See Standards Committee Agenda – March 11, 2015, available at <http://www.nerc.com/comm/SC/Agenda%20Highlights%20and%20Minutes/Standard%20Committee%20Meeting%20Minutes%20March%2011,%202015%20-%20Approved.pdf>.

<sup>10</sup> *Mandatory Reliability Standards for the Bulk-Power System*, Order No. 693, 72 FR 16416 (Apr. 4, 2007), FERC Stats. & Regs. ¶ 31,242, *order on reh'g*, Order No. 693-A, 120 FERC ¶ 61,053 (2007) (the applicable portion of the directive in Paragraph 566 states that FERC “directs the ERO to develop a modification to EOP-001-0 through the Reliability Standards development process that: (1) includes the Reliability Coordinator as an applicable entity with responsibilities as described above...” Paragraph 547 clarifies this directive by stating that, “Given the importance NERC attributes to the reliability coordinator in connection with matters covered by EOP-001-0, FERC is persuaded that specific responsibilities for the reliability coordinator in the development and coordination of emergency plans must be included as part of this Reliability Standard.”)

<sup>11</sup> *Id.* at P 935 (the applicable directive requires NERC “to modify IRO-004-1 through the Reliability Standards development process to require the next-day analysis to identify control actions that can be implemented and effective within 30 minutes after a contingency.”).

On January 21, 2010, NERC submitted a filing of several new or revised IRO standards, and among these, NERC requested approval of IRO-009-1 to respond to the two FERC directives in Order No. 693 referenced above. First, IRO-009-1 required Reliability Coordinators to have plans to address exceedances of IROLs. Second, IRO-009-1 required Reliability Coordinators to have a plan to resolve IROL that are identified during the “day-ahead” study within 30 minutes. The standard was designed to apply only to Reliability Coordinators and to prevent instability, uncontrolled separation, or cascading outages that adversely impact the reliability of the interconnection by “ensuring prompt action to prevent or mitigate instances of exceeding [IROLs].”

The IRO FYRT recommended revisions to IRO-009-1 and presented a SAR to the SC on October 17, 2013 that included these recommendations.<sup>12</sup> On March 11, 2015, the SC accepted the SAR as a precursor for development in Project 2015-06, and the standard drafting team for Project 2015-06 developed proposed Reliability Standard IRO-009-2.<sup>13</sup> Proposed Reliability Standard IRO-009-2 improves IRO-009-1 because it combines two existing requirements into one requirement with two subparts to make the requirements more clear and concise, it identifies the applicable entity and the actions required by the standard, it removes unnecessary language, and it implements commonly used terms and phrases for consistency with other Board approved standards.

#### **IV. JUSTIFICATION**

As discussed in detail in **Exhibit C**, proposed Reliability Standards IRO-006-EAST-2 and IRO-009-2 satisfy the Reliability Standards criteria and are just, reasonable, not unduly

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<sup>12</sup> See Project 2012-09 Development Page, available at <http://www.nerc.com/pa/stand/pages/project201209iireview.aspx>.

<sup>13</sup> See Standards Committee Agenda – March 11, 2015, available at <http://www.nerc.com/comm/SC/Agenda%20Highlights%20and%20Minutes/Standard%20Committee%20Meeting%20Minutes%20March%2011,%202015%20-%20Approved.pdf>.

discriminatory or preferential, and in the public interest. The following subsections provide: (A) a description of each proposed standard, the reliability purposes of each, and applicable entities to which the standards apply; (B) justification for each proposed standard, detailing the proposed revisions; and (C) discussion of the enforceability of the proposed standards. As discussed below, the scope of revisions are consistent with the recommendations provided by the FYRT in Project 2012-09 to improve the quality, relevance, and clarity of the standards.

**A. Proposed Reliability Standard IRO-006-EAST-2 – Transmission Loading Relief Procedure for the Eastern Interconnection**

The purpose of proposed Reliability Standard IRO-006-EAST-2 is “[t]o coordinate action between Reliability Coordinators within the Eastern Interconnection when implementing transmission loading relief procedures (TLR) for the Eastern Interconnection to prevent or manage potential or actual System Operating Limit (SOL) and Interconnection Reliability Operating Limit (IROL) exceedances to maintain reliability of the Bulk Electric System (BES).” This purpose statement reflects minor language revisions made by the IRO SDT to the current Board approved purpose statement of IRO-006-EAST-1 to improve clarity and to more accurately reflect the true purpose of IRO-006-EAST-2. As the standard is a regional Reliability Standard that applies to entities in the Eastern Interconnection, it only applies to Reliability Coordinators in the Eastern Interconnection.

Proposed Reliability Standard IRO-006-EAST-2 improves the existing version of the standard by removing redundant requirements, revising existing language for clarity, and streamlining several portions of the standard to emphasize the requirements that are necessary to ensure reliability. Along with proposed IRO-006-EAST-2, the IRO SDT also proposes to retire the existing Reliability Standard IRO-006-EAST-1 as described in the Implementation Plan for

IRO-006-EAST-2 (See **Exhibit B-1**) to ensure a seamless transition to the newly revised standard.

## **1. Requirement-by-Requirement Justification**

### **i. IRO-006-EAST-1, Requirement R1**

The IRO FYRT recommended that Requirement R1 of IRO-006-EAST-1 be retired, as it is redundant with existing and enforceable Reliability Standard IRO-008-1, Requirement R3, and Reliability Standard IRO-009-1, Requirement R4. In reaching this conclusion, the IRO FYRT confirmed that existing IRO-008-1 and IRO-009-1 are results based standards compliant with NERC's recent initiative to ensure that its standards focus on required actions or results and identify a clear and measurable expected reliability objective to be achieved. Further, the IRO FYRT determined that Requirement R1 of IRO-006-EAST-1 only provides a list of actions that the Reliability Coordinator should take but does not place specific parameters around how these actions should be taken to achieve a specific result.

The IRO SDT agrees that Requirement R1 is duplicative with other enforceable Reliability Standards. Based on this and the recommendations provided by the IRO FYRT mentioned above, the IRO SDT determined that retirement of the entirety of Requirement R1 is warranted; thus, Requirement R1 and Measure M1 of existing IRO-006-EAST-1 have been removed from proposed Reliability Standard IRO-006-EAST-2.

### **ii. IRO-006-EAST-1, Requirement R2**

The IRO SDT instituted revisions to Requirement R2 of IRO-006-EAST-1 to improve its clarity and to streamline the existing Requirement parts into the main requirement. Requirement R2, which now becomes Requirement R1 of IRO-006-EAST-2, has been revised as follows:

**R2.R1.** Each Reliability Coordinator that initiates ~~To ensure operating entities are provided with information needed to maintain an awareness of changes to the Transmission System, when initiating~~ the Eastern Interconnection TLR procedure

to prevent or mitigate an SOL or IROL exceedance, shall identify the TLR level and the congestion management actions to be implemented, and shall update this information at least every clock hour (~~with the exception of TLR-1, where an hourly update is not required~~) after initiation up to and including the hour when the TLR level has been identified as TLR Level 0,<sup>1</sup> ~~the Reliability Coordinator shall identify::~~ [Violation Risk Factor: Medium] [Time Horizon: Real-time Operations]

~~2.1. A list of congestion management actions to be implemented, and~~

~~2.2. One of the following TLR levels: TLR-1, TLR-2, TLR-3A, TLR-3B, TLR-4, TLR-5A, TLR-5B, TLR-6, TLR-0<sup>2</sup>~~

These modifications only improve existing language and move Requirement parts into the body of the Requirement. Because of this, the IRO SDT determined that these changes will not negatively affect reliability but will improve it because the Requirement is now clearer.

Along with the modifications reflected in the redline above, the IRO SDT also slightly revised the associated measure (Measure M2 in IRO-006-EAST-1, now measure M1 of proposed IRO-006-EAST-2) for consistency with the revised numbering of the Requirements.

### **iii. IRO-006-EAST-1, Requirement R3**

The IRO FYRT recommended that Requirement R3 of IRO-006-EAST-1 be retired, as it an administrative requirement that meets Paragraph 81 Criterion B1 – Administrative.<sup>14</sup> In reaching that conclusion, the FYRT determined that, when an Interchange Distribution Calculator (“IDC”) failure occurs, TLR action would be limited and would result in required manual actions to preserve the reliability of the Bulk Electric System. Because TLR action is limited, Requirement R3 does not actually define a curtailment that occurs upon failure of the IDC; rather, the actions defined in existing Requirement R3 are generated automatically through the IDC tool and sent to proper entities upon issuance of the TLR, so Requirement R3 is unnecessary.

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<sup>14</sup> Paragraph 81 of FERC’s *Order Accepting with Conditions*, *supra* note 7.

Requirement R3 does not provide reliability benefits and is simply administrative in nature. Based on this and other justifications explained by the IRO FYRT as mentioned above, the IRO SDT determined that retirement of the entirety of Requirement R3 is warranted, and thus, Requirement R3 and Measure M3 of existing IRO-006-EAST-1 have been removed from proposed Reliability Standard IRO-006-EAST-2.

#### iv. IRO-006-EAST-1, Requirement R4

The IRO SDT instituted revisions to Requirement R4 of IRO-006-EAST-1 to improve its clarity and to streamline language in three of the existing bullets to the Requirement. Further, the IRO SDT modified one of the existing bullets to create a requirement instead of a passive statement with no firm action item that is required for applicable entities. Requirement R4 of IRO-006-EAST-1, which now becomes Requirement R2 of IRO-006-EAST-2, has been revised as follows:

- R42.** Each Reliability Coordinator with a Sink Balancing Authority that must implement congestion management actions pursuant to the Eastern Interconnection TLR procedure that receives a request as described in Requirement R3, Part 3.3. shall, within 15 minutes of receiving the request from the issuing Reliability Coordinator, instruct the Sink Balancing Authority to implement the congestion management actions,~~within 15 minutes of receiving the request, implement the congestion management actions requested by the issuing Reliability Coordinator, subject to the following exception:~~ as follows: [*Violation Risk Factor: High*] [*Time Horizon: Real-time Operations*]
- ~~• Instruct its Balancing Authorities to implement the Interchange Transaction schedule change requests.~~
  - ~~• Instruct its Balancing Authorities to implement the Network Integration Transmission Service and Native Load schedule changes for which the Balancing Authorities are responsible.~~
  - ~~• Instruct its Balancing Authorities to implement the Market Flow schedule changes for which the Balancing Authorities are responsible.~~
  - Should ~~If~~ an assessment determines ~~shows~~ that one or more of the congestion management actions communicated ~~in Requirement R3, Part 3.3~~ will result in a reliability concern or will be ineffective, the Reliability Coordinator with a Sink Balancing Authority shall coordinate alternate congestion management actions with the issuing Reliability Coordinator. ~~the Reliability Coordinator may replace those specific actions with alternate congestion management actions, provided that:~~

~~The alternate congestion management actions have been agreed to by the initiating Reliability Coordinator, and The assessment shows that the alternate congestion management actions will not adversely affect reliability.~~

These modifications improve existing language and move existing bullets into the body of the Requirement. The IRO SDT determined that these changes will not negatively affect reliability but will improve it because the Requirement is now clearer. In addition to these minor changes, the IRO SDT revised language in the last bullet point of the existing Requirement R4 so that it is a mandatory and enforceable requirement instead of a declaratory statement. The IRO SDT determined that requiring this activity (the coordination of alternate congestion management actions between the “Reliability Coordinator with a Sink Balancing Authority” and the “issuing Reliability Coordinator) will improve reliability because it insists that coordination of congestion management actions occurs.

Along with the modifications reflected in the redline above, the IRO SDT also improved the associated measure (Measure M4 of IRO-006-EAST-1, now Measure M2 of IRO-006-EAST-2). The new proposed Measure takes into account the improved language of proposed Requirement R2 and ensures that applicable entities are compliant with the language of the newly enforceable requirement for Reliability Coordinators to coordinate congestion management actions.

#### **B. Proposed Reliability Standard IRO-009-2 – Reliability Coordinator Actions to Operate Within IROLs**

The purpose of proposed Reliability Standard IRO-009-2 is “[t]o prevent instability, uncontrolled separation, or cascading outages that adversely impact the reliability of the interconnection by ensuring prompt action to prevent or mitigate instances of exceeding Interconnection Reliability Operating Limits (IROLs).” The standard applies only to Reliability Coordinators. As described below, proposed Reliability Standard IRO-009-2 improves the

existing version of the standard by streamlining existing requirements to make existing requirements more concise, revising existing language to improve clarity and consistency with other Board approved standards, and removing redundant and unnecessary language. Along with proposed IRO-009-2, the IRO SDT also proposes to retire the existing Reliability Standard IRO-009-1 as described in the Implementation Plan for IRO-009-2 (See **Exhibit B-2**) to ensure a seamless transition to the newly revised standard.

## **1. Requirement-by-Requirement Justification**

### **i. IRO-009-1, Requirements R1 and R2**

The IRO SDT combined Requirements R1 and R2 of IRO-009-1 to improve the clarity and to simplify the language, as both contained similar language. Requirements R1 and R2 of IRO-009-1, which now become Requirement R1 in proposed Reliability Standard IRO-009-2, have been revised as follows:

- R1.** For each IROL (in its Reliability Coordinator Area) that the Reliability Coordinator identifies one or more days prior to the current day, the Reliability Coordinator shall have one or more Operating Processes, Procedures, or Plans that identify actions ~~it shall take or actions it shall direct others to take (up to and including load shedding)~~ ~~that can be implemented in time to prevent exceeding those IROLs.~~ the Reliability Coordinator shall take or actions the Reliability Coordinator shall direct others to take (up to and including load shedding); that can be implemented in time to prevent exceeding those IROLs. *(Violation Risk Factor: Medium) (Time Horizon: Operations Planning or Same Day Operations)*
- 1.1 ~~That can be implemented in time to prevent the identified IROL exceedance.~~
- 1.2 ~~**R2.** For each IROL (in its Reliability Coordinator Area) that the Reliability Coordinator identifies one or more days prior to the current day, the Reliability Coordinator shall have one or more Operating Processes, Procedures, or Plans that identify actions it shall take or actions it shall direct others to take (up to and including load shedding) to mitigate the magnitude and duration of exceeding an that IROL IROL exceedance such that the IROL exceedance is relieved within the IROL's T<sub>v</sub>.~~ *(Violation Risk Factor: Medium) (Time Horizon: Operations Planning or Same Day Operations)*

These modifications improve existing language and consolidate the two Requirements into one Requirement related to actions to prevent or mitigate IROL exceedances. The IRO SDT



determined that these changes will not negatively affect reliability but will improve it because the combined Requirement is now clearer.

Along with the modifications reflected in the redline above, the IRO SDT improved the associated proposed Measure M1 of IRO-009-1 to take into account the combined Requirements R1 and R2.

**ii. IRO-009-1, Requirement R3**

The IRO SDT revised the language of existing Requirement R3 to improve its clarity and consistency with other Board approved standards. As an example, the IRO SDT cited recently revised Requirement R14 of Reliability Standard TOP-001-3 which uses the terms “IROL exceedance,” “Real-time monitoring,” and “Real-time Assessments” as they relate to an entity’s Operating Plan. Requirement R3 of IRO-009-1, which now becomes Requirement R2 in proposed Reliability Standard IRO-009-2, has been revised as follows:

**R23.** ~~When an assessment of actual or expected system conditions predicts that an IROL in its Reliability Coordinator Area will be exceeded, the Each~~ Reliability Coordinator shall ~~implement~~ initiate one or more Operating Processes, Procedures, or Plans (not limited to the Operating Processes, Procedures, or Plans developed for Requirements R1) ~~that are intended~~ to prevent ~~exceeding that an~~ IROL exceedance, as identified in the Reliability Coordinator’s Real-time monitoring or Real-time Assessment. *(Violation Risk Factor: High) (Time Horizon: Real-time Operations)*

The IRO SDT determined that these changes will not negatively affect reliability but will improve it because the combined Requirement is now clearer and consistent with other Board approved Reliability Standards.

Along with the modifications reflected in the redline above, the IRO SDT also created an associated Measure to take into account its effort to improve existing Requirement R3 of IRO-009-1. This Measure requires each Reliability Coordinator to have evidence that it complied with proposed Requirement R2 of IRO-009-2, including, but not limited to, “Operating

Processes, Operating Procedures, or Operating Plans, dated operating logs, dated voice recordings, dated transcripts of voice recordings, or other evidence.”

**iii. IRO-009-1, Requirement R4**

The IRO SDT made several improvements to existing language in Requirement R4 of Reliability Standard IRO-009-1 to improve clarity and consistency with similar Board approved Reliability Standards and to remove redundancy in that Requirement.

After reviewing the existing language in Requirement R4 of IRO-009-1, the IRO SDT determined that, by stating that the applicable entities must “act or direct others to act” to mitigate “the magnitude and duration” of an IROL exceedance, the language in the Requirement already implies that actions must be taken immediately. Requirement R4 of existing IRO-009-1 requires that actions be taken “without delay,” but given that this timing is implied, “without delay” is not necessary. Accordingly, the IRO SDT removed the language “without delay” from the Requirement. Similar to improvements mentioned above, the IRO SDT also improved language in existing Requirement R4 to ensure consistency with other Board approved Reliability Standards, including Requirement R14 of Reliability Standard TOP-001-3. Requirement R4 of IRO-009-1, which now becomes Requirement R3 in proposed Reliability Standard IRO-009-2, has been revised as follows:

**~~R4R3.~~ ~~When actual system conditions show that there is an instance of exceeding an IROL in its Reliability Coordinator Area, the Each~~ Reliability Coordinator shall, ~~without delay,~~ act or direct others to act ~~so that to mitigate~~ the magnitude and duration of ~~the instance of exceeding that an~~ IROL ~~exceedance is mitigated~~ within the IROL’s T<sub>v</sub>, as identified in the Reliability Coordinator’s Real-time monitoring or Real-time Assessment. (Violation Risk Factor: High) (Time Horizon: Real-time Operations)**

The IRO SDT determined that these changes will not negatively affect reliability but will improve it because the Requirement is now clearer and consistent with other Board approved Reliability Standards.

Along with the modifications reflected in the redline above, the IRO SDT also improved the existing associated measure (Measure M4 in existing IRO-009-1, now Measure M3 in proposed Reliability Standard IRO-009-2) to take into account its effort to improve this Requirement. This Measure requires each Reliability Coordinator to have evidence that it complied with proposed Requirement R3 of IRO-009-2, including, but not limited to, “Operating Processes, Operating Procedures, or Operating Plans, dated operating logs, dated voice recordings, dated transcripts of voice recordings, or other evidence.”

**iv. IRO-009-1, Requirement R5**

The IRO SDT revised the language of existing Requirement R5 of Reliability Standard IRO-009-1 to improve its clarity and consistency with other Board approved standards. In its justification for improving the standard for consistency with other Board approved standards, the IRO SDT cited recently revised Requirement R18 of Reliability Standard TOP-001-3, which requires Transmission Operators to operate to the “most limiting parameter in instances where there is a difference in SOLs.” To mimic this language in the existing Requirement, the IRO SDT revised it to state that the Reliability Coordinator must operate to “the most limiting IROL and  $T_v$  in instances where there is difference in an IROL or its  $T_v$  between Reliability Coordinators that are responsible for that Facility (or group of Facilities).”

Requirements R5 of IRO-009-1, which now becomes Requirement R4 in proposed Reliability Standard IRO-009-2, has been revised as follows:

- R45.** ~~If unanimity cannot be reached on the value for an IROL or its  $T_v$ , e~~ Each Reliability Coordinator ~~that monitors that Facility (or group of Facilities)~~ shall ~~operate to, without delay, use~~ the most limiting IROL and  $T_v$  in instances where there is a difference in an IROL or its  $T_v$  between Reliability Coordinators that are responsible for that Facility (or group of Facilities). ~~conservative of the values (the value with the least impact on reliability) under consideration.~~ (*Violation Risk Factor: High*) (*Time Horizon: Real-time Operations*)

The IRO SDT determined that these changes will not negatively affect reliability but will improve it because the combined Requirement is now clearer and consistent with other Board approved Reliability Standards.

Along with the modifications reflected in the redline above, the IRO SDT also improved the associated measure (Measure M5 of IRO-009-1, now Measure 4 of proposed IRO-009-2) to take into account its effort to improve the related Requirement. Consistent with revisions to the Requirement, revisions to Measure M5 of existing Reliability Standard IRO-009-1 remove the existing language “without delay” and implements the language “to the most limiting IROL and  $T_v$  in instances where there is a difference in an IROL or its  $T_v$ ,” as mentioned above.

### **C. Enforceability of the Proposed Reliability Standards**

As described in the relevant justifications above, the proposed Reliability Standards include Measures that support each Requirement to help ensure that the Requirements will be enforced in a clear, consistent, non-preferential manner and without prejudice to any party. The proposed Reliability Standards also include VRFs and VSLs for each Requirement, which are part of several elements used to determine an appropriate sanction when the associated Requirement is violated. Specifically, the VSLs provide guidance on the way that NERC will enforce the Requirements of the proposed Reliability Standards, and the VRFs assess the impact to reliability of violating a specific Requirement.

The two Requirements in proposed Reliability Standard IRO-006-EAST-2 are improvements to existing requirements, Requirements R2 and R4, of IRO-006-EAST-1. Because the substance of these proposed Requirements track to the related existing Requirements, the IRO SDT did not feel that a change in the VRFs for those Requirements was warranted. The IRO SDT did, however, revise the VSL for Requirement R2 to conform to the

revisions made to the language in that Requirement. Further, proposed Reliability Standard IRO-006-EAST-2 seeks to retire two requirements that existed in IRO-006-EAST-1, Requirements R1 and R3, so the VRFs and VSLs for these Requirements have not been included in proposed IRO-006-EAST-2.

The four Requirements in proposed Reliability Standard IRO-009-2 consolidate and improve the existing five Requirements in existing Reliability Standard IRO-009-1. Because Requirements R1 and R2 of the existing IRO-009-1 both had a VRF of medium, the IRO SDT also assigned Requirement R1 of proposed IRO-009-2, which combines Requirements R1 and R2 of the existing standard, a VRF of medium. Requirement R2, Requirement R3, and Requirement R4 of proposed IRO-009-2 map to Requirements R3, R4, and R5 of existing IRO-009-1, respectively; therefore, the IRO SDT did not revise the VRFs for any of those requirements. The IRO SDT did, however, revise the VSLs for Requirements R2 through R4 in proposed IRO-009-2 to conform to the revisions to the language therein.

For reference purposes, **Exhibit E** includes the detailed analysis of the assignment of VRFs and the VSLs for the proposed Reliability Standards. As reflected therein, the VRFs and VSLs for the proposed Reliability Standard comport with NERC and FERC guidelines.

## **V. EFFECTIVE DATE**

Reliability Standard IRO-006-EAST-2 will be effective as provided in the Implementation Plan, and Reliability Standard IRO-009-2 will be effective as provided in the Implementation Plan.

Respectfully submitted,

/s/ Andrew C. Wills

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## **EXHIBITS A - B and D - G**

(Available on the NERC Website at

<http://www.nerc.com/FilingsOrders/ca/Canadian%20Filings%20and%20Orders%20DL/IRO%20Petition%20exhibits.pdf>)

**Exhibit C**

**Reliability Standards Criteria**



## Reliability Standards Criteria

**1. Proposed Reliability Standards must be designed to achieve a specified reliability goal and must contain a technically sound means to achieve that goal.**

The proposed Reliability Standards are designed to ensure that Reliability Coordinators take certain actions to prevent or manage reliability threats from potential or actual System Operating Limit (SOL) and Interconnection Reliability Operating Limit (IROL) exceedances to maintain reliability of the Bulk Electric System. Specifically, the purpose of proposed Reliability Standard IRO-006-EAST-2 is to ensure that the actions between Reliability Coordinators in the Eastern Interconnection are coordinated when implementing transmission loading relief procedures (TLR) to prevent or manage potential or actual SOL and IROL. Similarly, proposed Reliability Standard IRO-009-2, which was designed as a nationwide standard, is designed to prevent instability, uncontrolled separation, or cascading outages that adversely impact the reliability of the interconnection by ensuring prompt action to prevent or mitigate instances of exceeding IROLs.

Both proposed Reliability Standards continue to achieve the specific reliability goals mentioned above. The revisions made in the proposed standards improve upon the existing standards by converting each standard into the Results Based Standards, streamlining and clarifying language, and conforming the existing standards to comply with Paragraph 81 principles.

**2. Proposed Reliability Standards must be applicable only to users, owners and operators of the bulk power system, and must be clear and unambiguous as to what is required and who is required to comply.**

As described below, proposed Reliability Standards IRO-006-EAST-2 and IRO-009-2 are clear and unambiguous as to who is required to comply and what is required.

Both of the revised requirements in Reliability Standard IRO-006-EAST-2 and each of the four revised requirements in Reliability Standard IRO-009-2 clearly articulate the actions

that such entities must take to comply, as the standards reflect separate performance elements that are easily recognizable using means defined in the associated measures. Both IRO-006-EAST-2 and IRO-009-2 apply only to Reliability Coordinators, and because IRO-006-EAST-2 is a regional Reliability Standard, it is only applicable to those Reliability Coordinators in the Eastern Interconnection.

**3. A proposed Reliability Standard must include clear and understandable consequences and a range of penalties (monetary and/or non-monetary) for a violation.**

Proposed Reliability Standards IRO-006-EAST-2 and IRO-009-2 include clear and understandable consequences and an appropriate range of penalties. The Violation Risk Factors (“VRFs”) and Violation Severity Levels (“VSLs”) for the proposed revised Reliability Standards IRO-006-EAST-2 and IRO-009-2 comport with NERC and Commission guidelines related to their assignment. The assignment of the severity level for each VSL is consistent with the corresponding Requirement and will ensure uniformity and consistency in the determination of penalties. The VSLs do not use any ambiguous terminology, thereby supporting uniformity and consistency in the determination of similar penalties for similar violations. The assignment of factors for the VRFs is consistent with the NERC Criteria for VRFs and will ensure that penalties assessed for violation of requirements is proportionate to the threat to reliability posed by noncompliance.

**4. A proposed Reliability Standard must identify clear and objective criterion or measure for compliance, so that it can be enforced in a consistent and non-preferential manner.**

Proposed Reliability Standard IRO-006-EAST-2 contains two Measures and IRO-009-2 contains four Measures, and each support the related requirements by clearly identifying what is required and how the requirement will be enforced. These measures help ensure that the requirements will be enforced in a clear, consistent, and non-

preferential manner and without prejudice to any party.

- 5. Proposed Reliability Standards should achieve a reliability goal effectively and efficiently — but do not necessarily have to reflect “best practices” without regard to implementation cost or historical regional infrastructure design.**

Proposed Reliability Standards IRO-006-EAST-2 and IRO-009-2 improve the quality, relevance, and clarity of each of the standards so that the reliability goals for each are achieved effectively and efficiently.

- 6. Proposed Reliability Standards cannot be “lowest common denominator,” *i.e.*, cannot reflect a compromise that does not adequately protect Bulk-Power System reliability. Proposed Reliability Standards can consider costs to implement for smaller entities, but not at consequences of less than excellence in operating system reliability.**

Proposed Reliability Standards IRO-006-EAST-2 and IRO-009-2 do not reflect a “lowest common denominator” approach; rather, the proposed Reliability Standards represent improvements to the existing versions of these standards by introducing granularity and simplicity to the language of each requirement. Because the standards are now clearer than the existing versions, the revised standards are more stringent than the currently effective IRO-006-EAST-2 and IRO-009-2.

- 7. Proposed Reliability Standards must be designed to apply throughout North America to the maximum extent achievable with a single Reliability Standard while not favoring one geographic area or regional model. It should take into account regional variations in the organization and corporate structures of transmission owners and operators, variations in generation fuel type and ownership patterns, and regional variations in market design if these affect the proposed Reliability Standard.**

The requirements in proposed Reliability Standard IRO-006-EAST-2 are designed to apply to Reliability Coordinators in the Eastern Interconnection. Unlike most NERC standards, this standard deals with requirements on an Interconnection-wide basis, rather than a Regional or continent-wide basis. It is within the scope of the ERO to develop standards that apply only with a specific Interconnection, as it helps to ensure uniformity in inter-regional operations and to take

into account geographical idiosyncrasies that affect electrical operations.

On the other hand, the requirements in proposed Reliability Standard IRO-009-2 are designed to work in tandem with the existing IRO standards to prevent issues that adversely impact reliability by ensuring prompt action to prevent or mitigate instances of exceeding IROLs. Reliability Standard IRO-009-2 applies throughout North America to the maximum extent and does not favor one geographic area or regional model. As such, IRO-009-2 has been designed to properly account for variations across all organizations and corporate structures.

**8. Proposed Reliability Standards should cause no undue negative effect on competition or restriction of the grid beyond any restriction necessary for reliability.**

Proposed Reliability Standards IRO-006-EAST-2 and IRO-009-2 will not cause undue negative effect on competition or result in any unnecessary restrictions.

**9. The implementation time for the proposed Reliability Standard is reasonable.**

The proposed effective dates for Reliability Standards IRO-006-EAST-2 and IRO-009-2 are just and reasonable. NERC proposes an effective date for IRO-009-2 on the first day of the first calendar quarter after applicable regulatory approval. NERC proposes an effective date for IRO-006-EAST-2 on the first day of the second calendar quarter after applicable regulatory approval. The proposed implementation periods are designed to allow sufficient time for the applicable entities to make any changes in their internal process necessary to implement the proposed revisions. The proposed Implementation Plans for IRO-006-EAST-2 and IRO-009-2 are attached as **Exhibit B1** and **Exhibit B2**, respectively.

**10. The Reliability Standard was developed in an open and fair manner and in accordance with the Reliability Standard development process.**

The proposed Reliability Standards were developed in accordance with NERC's ANSI-

accredited processes for developing and approving Reliability Standards.<sup>1</sup> **Exhibit G** includes a summary of the Reliability Standard development proceedings, and details the processes followed to develop the Reliability Standard. These processes included, among other things, multiple comment period, pre-ballot review periods, and balloting periods. Additionally, all meetings of the standard drafting team were properly noticed and open to the public.

**11. NERC must explain any balancing of vital public interests in the development of proposed Reliability Standards.**

NERC has identified no competing public interests regarding the proposed Reliability Standards IRO-006-EAST-2 and IRO-009-2. No comments were received that indicated the proposed Reliability Standards conflict with other vital public interests.

**12. Proposed Reliability Standards must consider any other appropriate factors.**

No other negative factors relevant to whether proposed Reliability Standards IRO-006-EAST-2 and IRO-009-2 are just and reasonable were identified.

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<sup>1</sup> See NERC Rules of Procedure, Section 300 (Reliability Standards Development) and Appendix 3A (Standard Processes Manual).