**UNITED STATES OF AMERICA**
**BEFORE THE**
**FEDERAL ENERGY REGULATORY COMMISSION**

| | | |
|---|---|---|
| **North American Electric Reliability Corporation** | **)** **)** | **Docket No. _____** |

# JOINT PETITION OF THE NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION AND WESTERN ELECTRICITY COORDINATING COUNCIL FOR APPROVAL OF PROPOSED REGIONAL RELIABILITY STANDARD IRO-006-WECC-3


Sandy Mooy
Associate General Counsel
Ruben Arredondo
Senior Legal Counsel
Western Electricity Coordinating Council
155 North 400 West, Suite 200
Salt Lake City, UT 84103
(801) 582-0353
smooy@wecc.org
rarredondo@wecc.org

*Counsel for the Western Electricity Coordinating Council*

Lauren Perotti
Senior Counsel
North American Electric Reliability Corporation
1325 G Street, N.W., Suite 600
Washington, D.C. 20005
(202) 400-3000
lauren.perotti@nerc.net

*Counsel for the North American Electric Reliability Corporation*


March 6, 2019

**TABLE OF CONTENTS**

**UNITED STATES OF AMERICA**
**BEFORE THE**
**FEDERAL ENERGY REGULATORY COMMISSION**

| | | |
|---|---|---|
| **North American Electric Reliability Corporation** | **)** **)** | **Docket No. _____** |

# JOINT PETITION OF THE NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION AND WESTERN ELECTRICITY COORDINATING COUNCIL FOR APPROVAL OF PROPOSED REGIONAL RELIABILITY STANDARD IRO-006-WECC-3

Pursuant to Section 215(d)(1) of the Federal Power Act ("FPA")[1] and Section 39.5[2] of the Federal Energy Regulatory Commission's ("FERC" or the "Commission") regulations, the North American Electric Reliability Corporation ("NERC")[3] and the Western Electricity Coordinating Council ("WECC") hereby submit proposed Regional Reliability Standard IRO-006-WECC-3 – Qualified Path Unscheduled Flow (USF) Relief for Commission approval. Regional Reliability Standard IRO-006-WECC-3 addresses requests for transmission relief due to unscheduled flow on Qualified Paths in the Western Interconnection. NERC and WECC also request approval of the regional defined term "Qualified Path" to replace the term "Qualified Transfer Path" in the NERC Glossary and for the retirement of certain regional defined terms no longer used in any WECC Regional Reliability Standard.[4]

NERC and WECC request that the Commission approve proposed Regional Reliability Standard IRO-006-WECC-3 (**Exhibit A**) as just, reasonable, not unduly discriminatory or

---

1 16 U.S.C. § 824o (2018).

2 18 C.F.R. § 39.5 (2018).

3 The Commission certified NERC as the electric reliability organization ("ERO") in accordance with Section 215 of the FPA on July 20, 2006. *N. Am. Elec. Reliability Corp.*, 116 FERC ¶ 61,062 (2006).

4 *Glossary of Terms Used in NERC Reliability Standards* ("NERC Glossary"), http://www.nerc.com/files/Glossary_of_Terms.pdf. Unless otherwise designated, all capitalized terms used in this document shall have the meaning set forth in the NERC Glossary.

preferential, and in the public interest. NERC and WECC also request approval of the associated implementation plan (**Exhibit B**), and the associated Violation Risk Factors ("VRFs") and Violation Severity Levels ("VSLs") (**Exhibit D**), as detailed in this petition.

As required by Section 39.5(a)[5] of the Commission's regulations, this petition presents the technical basis and purpose of the proposed Regional Reliability Standard, a summary of the development proceedings (**Section III.D** and **Exhibit E**), and a demonstration that the proposed Regional Reliability Standard meets the criteria identified by the Commission in Order No. 672[6] (**Exhibit C**). Proposed Regional Reliability Standard IRO-006-WECC-3 was approved by the WECC Board of Directors on December 5, 2018 and adopted by the NERC Board of Trustees on February 7, 2019.

## I. SUMMARY

The purpose of proposed Regional Reliability Standard IRO-006-WECC-3 is to mitigate flows on Qualified Paths to reliable levels during real-time operations. The proposed standard was developed following a periodic review of the currently-effective version of the standard, IRO-006-WECC-2, which became effective in 2014.

As a result of WECC's periodic review, WECC revised the standard to clarify the purpose statement, replace certain defined terms, account for multiple Reliability Coordinators in the Western Interconnection, and conform the standard to the current drafting conventions and template. Proposed Regional Reliability Standard IRO-006-WECC-3 continues to remain more stringent than continent-wide standards and necessary for reliability in the Western

---

5 18 C.F.R. § 39.5(a).

6 The Commission specified in Order No. 672 certain general factors it would consider when assessing whether a particular Reliability Standard is just and reasonable. *See Rules Concerning Certification of the Electric Reliability Organization; and Procedures for the Establishment, Approval, and Enforcement of Electric Reliability Standards*, Order No. 672, FERC Stats. & Regs. ¶ 31,204, at PP 262, 321-37 ("Order No. 672"), *order on reh'g*, Order No. 672-A, FERC Stats. & Regs. ¶ 31,212 (2006).

Interconnection. For these reasons, and as discussed more fully herein, NERC and WECC respectfully request the Commission approve proposed Regional Reliability Standard IRO-006-WECC-3 and the associated elements. The following petition presents the justification for approval and supporting documentation.

## II. NOTICES AND COMMUNICATIONS

Notices and communications with respect to this filing may be addressed to the following:[7]


Sandy Mooy*
Associate General Counsel
Ruben Arredondo*
Senior Legal Counsel
Steve Rueckert*
Director of Standards
Western Electricity Coordinating Council
155 North 400 West, Suite 200
Salt Lake City, UT 84103
(801) 582-0353
smooy@wecc.org
rarredondo@wecc.org
srueckert@wecc.org

Lauren Perotti*
Senior Counsel
North American Electric Reliability Corporation
1325 G Street, N.W., Suite 600
Washington, D.C. 20005
(202) 400-3000
lauren.perotti@nerc.net


## III. BACKGROUND

The following background information is provided below: (a) an explanation of the regulatory framework for NERC and Regional Reliability Standards; (b) an explanation of the WECC Regional Reliability Standards development process; and (c) the history of WECC-0130 IRO-006-WECC-2, Qualified Transfer Path Unscheduled Flow (USF) Relief Five-Year Review.

[7] Persons to be included on the Commission's service list are identified by an asterisk. NERC respectfully requests a waiver of Rule 203 of the Commission's regulations, 18 C.F.R. § 385.203, to allow the inclusion of more than two persons on the service list in this proceeding.

### A. Regulatory Framework

By enacting the Energy Policy Act of 2005,[8] Congress entrusted the Commission with the duties of approving and enforcing rules to ensure the reliability of the Nation's Bulk-Power System, and with the duties of certifying an ERO that would be charged with developing and enforcing mandatory Reliability Standards, subject to Commission approval. Section 215(b)(1)[9] of the FPA states that all users, owners, and operators of the Bulk-Power System in the United States will be subject to Commission-approved Reliability Standards. Section 215(d)(5)[10] of the FPA authorizes the Commission to order the ERO to submit a new or modified Reliability Standard. Section 39.5(a)[11] of the Commission's regulations requires the ERO to file with the Commission for its approval each Reliability Standard that the ERO proposes should become mandatory and enforceable in the United States, and each modification to a Reliability Standard that the ERO proposes should be made effective.

The Commission has the regulatory responsibility to approve Reliability Standards that protect the reliability of the Bulk-Power System and to ensure that such Reliability Standards are just, reasonable, not unduly discriminatory or preferential, and in the public interest. Pursuant to Section 215(d)(2) of the FPA[12] and Section 39.5(c)[13] of the Commission's regulations, the Commission will give due weight to the technical expertise of the ERO with respect to the content of a Reliability Standard.

---

8 16 U.S.C. § 824o.

9 *Id*. § 824o(b)(1).

10 *Id*. § 824o(d)(5).

11 18 C.F.R. § 39.5(a).

12 16 U.S.C. § 824o(d)(2).

13 18 C.F.R. § 39.5(c)(1).

Similarly, the Commission approves Regional Reliability Standards proposed by Regional Entities if the Regional Reliability Standard is just, reasonable, not unduly discriminatory or preferential, and in the public interest.[14] In addition, Order No. 672 requires further criteria for Regional Reliability Standards. A regional difference from a continent-wide Reliability Standard must either be: (1) more stringent than the continent-wide Reliability Standard, or (2) necessitated by a physical difference in the Bulk-Power System.[15] The Commission must give due weight to the technical expertise of a Regional Entity, like WECC, that is organized on an Interconnection-wide basis with respect to a Regional Reliability Standard to be applicable within that Interconnection.[16]

### B. WECC Regional Reliability Standards Development Process

The proposed Regional Reliability Standard was developed in an open and fair manner and in accordance with the Commission-approved WECC Reliability Standards Development Procedures ("RSDP").[17] WECC's RSDP provides for reasonable notice and opportunity for public comment, due process, openness, and a balance of interests in developing Reliability Standards and thus addresses certain for approving Reliability Standards. The development process is open to any person or entity that is an interested stakeholder. WECC considers the comments of all stakeholders, and a vote of stakeholders and the WECC Board of Directors is required to approve a Regional Reliability Standard. NERC posts each proposed Regional Reliability Standard for an

---

14 Section 215(d)(2) of the FPA and 18 C.F.R. § 39.5(a).

15 Order No. 672 at P 291.

16 *Id*. at P 344.

17 The currently-effective WECC RSDP was approved by the Commission on October 27, 2017 (*see N. Am. Elec. Reliability Corp.*, RR17-5-000 (Oct. 27, 2017) (unpublished letter order)) and is available at: http://www.nerc.com/FilingsOrders/us/Regional%20Delegation%20Agreements%20DL/WECC%20RSDP_20171027.pdf.

additional comment period. The NERC Board of Trustees must adopt the Regional Reliability Standard before the Regional Reliability Standard is submitted to the Commission for approval.

### C. History of the IRO-006-WECC Standard

The IRO-006-WECC standard was originally developed to mitigate transmission overloads due to unscheduled flow on "Qualified Transfer Paths" (i.e. transfer paths designated by WECC as being qualified for WECC unscheduled flow mitigation). The first version of the Regional Reliability Standard, IRO-006-WECC-1, became effective in 2011.[18] The currently effective version of the standard, IRO-006-WECC-2, became effective in 2014.[19] In approving Regional Reliability Standard IRO-006-WECC-2, the Commission stated, "We believe regional Reliability Standard IRO-006-WECC-2 will help protect and improve reliability in the Western Interconnection by mitigating transmission overloads due to unscheduled flow on Qualified Transfer Paths."[20]

### D. Development of the Proposed Regional Reliability Standard

As further described in **Exhibit E** hereto, proposed Regional Reliability Standard IRO-006-WECC-3 was developed in accordance with the WECC RSDP, as part of a five-year review of currently effective Regional Reliability Standard IRO-006-WECC-2. On November 5, 2018, the second draft of proposed Regional Reliability Standard IRO-006-WECC-3 was approved by the WECC ballot body with a 100 percent affirmative vote at 77.6 percent quorum. The WECC Board of Directors approved the regional standard on December 5, 2018. NERC posted the regional standard for a 45-day comment period concluding on January 28, 2019. Commenters

---

[18] Regional Reliability Standard IRO-006-WECC-1 was approved by the Commission in Order No. 746. *Western Electric Coordinating Council Qualified Transfer Path Unscheduled Flow Relief Regional Reliability Standard*, Order No. 746, 134 FERC ¶ 61,199 (2011).

[19] Regional Reliability Standard IRO-006-WECC-2 was approved by the Commission on May 13, 2014. *N. Am. Elec. Reliability Corp.*, 147 FERC ¶ 61,112 (2014).

[20] *Id*. at P 9.

agreed that WECC's process was open, inclusive, balanced, transparent, and that due process was followed. The NERC Board of Trustees subsequently adopted the regional standard on February 7, 2019.

## IV. JUSTIFICATION FOR APPROVAL

The purpose of proposed Regional Reliability Standard IRO-006-WECC-3 is to mitigate flows on Qualified Paths to reliable levels during real-time operations. The proposed standard would continue to provide specific requirements for acting on requests for unscheduled flow transmission relief on a Qualified Path within the responsible entity's area. Proposed Regional Reliability Standard IRO-006-WECC-3 builds upon the currently effective version of the standard with several improvements to clarify and streamline language. The proposed regional standard continues to remain more comprehensive than its continent-wide counterpart and necessary for reliability in the Western Interconnection. The proposed changes are discussed in more detail below.

### A. "Qualified Paths"

In currently effective Regional Reliability Standard IRO-006-WECC-2, the Requirements make reference to Qualified Transfer Paths. The term "Qualified Transfer Path" is defined in the NERC Glossary as "[a] transfer path designated by the WECC Operating Committee as being qualified for WECC unscheduled flow mitigation."[21] At the time Regional Reliability Standard IRO-006-WECC-2 was developed, WECC served as the administrator of the associated Western Interconnection Unscheduled Flow Mitigation Plan (WIUFMP).[22] As of 2018, WECC no longer

[21] *See* NERC Glossary, *supra* n.4.

[22] The Commission approved the currently effective version of the WIUFMP in 2016. *Pacificorp*, 154 FERC ¶ 61,189 (2016). The plan is available at: https://www.wecc.biz/Reliability/12c-FERC%20Accepted%20WIUFMP%202016%2003%2011.pdf.

serves in this role. The NERC Glossary definition of Qualified Transfer Path is therefore out of date.

To address this issue and promote alignment of defined terms across related documents, the defined term Qualified Transfer Path is replaced in proposed Regional Reliability Standard IRO-006-WECC-3 with the proposed term "Qualified Path." The proposed term Qualified Path would have the same definition as it has in the FERC-approved WIUFMP, which is: "[a] transmission element, or group of transmission elements that has qualified for inclusion into the WIUFMP."[23] NERC and WECC respectfully request that the Commission approve the defined term "Qualified Path" for inclusion in the NERC Glossary to replace the term "Qualified Transfer Path".

### B. Purpose and Applicability

The purpose statement of proposed Regional Reliability Standard IRO-006-WECC-3 has been revised and clarified to state that the purpose of the standard is "to mitigate flows on Qualified Paths to reliable levels during real-time operations."[24] The proposed standard would continue to be applicable to Reliability Coordinators and Balancing Authorities in the Western Interconnection.

### C. Requirements

Proposed Regional Reliability Standard IRO-006-WECC-3 includes revisions that clarify the obligations of Reliability Coordinators (Requirement R1) and Balancing Authorities (Requirement R2) with respect to acting on requests for unscheduled flow transmission relief on Qualified Paths. These revisions are as follows:

---

[23] The WIUFMP describes, among other things, the process by which an Administrator for the plan is chosen and the criteria that must be met for including paths as Qualified Paths.

[24] *See* Exhibit A.

Requirement R1

> **R1.** Each Reliability Coordinator receiving a request for Curtailments for unscheduled flow transmission relief on a Qualified Path within its Reliability Coordinator Area shall either approve or deny ~~a~~that request within five minutes of ~~receiving the request for unscheduled flow transmission relief from the Transmission Operator of a Qualified Transfer Path that will result in the calculation of a Relief Requirement.~~receipt.

Requirement R2

> **R2.** Each Balancing Authority receiving an approved request for unscheduled flow transmission relief on a Qualified Path per Requirement R1, shall perform any ~~combination~~ of the following actions ~~meeting the Relief Requirement upon receiving a request for relief as described in Requirement R1~~to meet that request:
>
> • Approve curtailment requests to the schedules as submitted
>
> • Implement alternative actions

The proposed revisions highlighted above do not substantively alter the fundamental obligations of Reliability Coordinators and Balancing Authorities. Rather, the revisions help to streamline the language and improve readability. This is accomplished by, among other things, reducing the use of defined terms that are now used only in Regional Reliability Standard IRO-006-WECC-2. By revising the Regional Reliability Standard, WECC proposes to retire regional defined terms Contributing Schedule and Relief Requirement. Additionally, WECC proposes to replace the defined term Qualified Transfer Path, as discussed above.

WECC has determined that three other WECC regional defined terms may also be formally retired from the NERC Glossary at this time. These defined terms were used in retired Regional Reliability Standard IRO-006-WECC-1, but are no longer used in any regional or continent-wide Reliability Standard. These terms include: (i) Qualified Controllable Device; (ii) Transfer Distribution Factor; and (iii) Qualified Transfer Path Curtailment Event.

### D. Enforceability of Proposed Regional Reliability Standard IRO-006-WECC-3

The proposed Regional Reliability Standard includes VRFs and VSLs. The VSLs provide guidance on the way that NERC will enforce the requirements of the proposed Regional Reliability Standard. The VRFs are one of several elements used to determine an appropriate sanction when the associated requirement is violated. The VRFs assess the impact to reliability of violating a specific requirement. In proposed Regional Reliability Standard IRO-006-WECC-3, the VRFs remain unchanged from the related Requirements in currently-effective Regional Reliability Standard IRO-006-WECC-2. The VSL section has been modified to match the revised language of underlying Requirements. The VRFs and VSLs for the proposed Regional Reliability Standard continue to comport with NERC and Commission guidelines related to their assignment.

The proposed Regional Reliability Standard also includes Measures that support each requirement 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.[25]

## V. EFFECTIVE DATE

NERC respectfully requests that the Commission approve the proposed implementation plan, provided in **Exhibit B** hereto. Under the proposed implementation plan, proposed Regional Reliability Standard IRO-006-WECC-3 would become effective on the first day of the second calendar quarter after Commission approval. Currently effective Regional Reliability Standard IRO-006-WECC-2 would be retired immediately prior to the effective date of proposed Regional Reliability Standard IRO-006-WECC-3.

[25] Order No. 672 at P 327 ("There should be a clear criterion or measure of whether an entity is in compliance with a proposed Reliability Standard. It should contain or be accompanied by an objective measure of compliance so that it can be enforced and so that enforcement can be applied in a consistent and non-preferential manner.").

## VI. CONCLUSION

For the reasons set forth above, NERC respectfully requests that the Commission approve:

- the proposed Regional Reliability Standard IRO-006-WECC-3 in **Exhibit A**;
- the other associated elements in the proposed Regional Reliability Standard in **Exhibit A**, including the VRFs and VSLs;
- the revisions to the NERC Glossary, as described above;
- the proposed implementation plan, included in **Exhibit B**; and
- the retirement of Regional Reliability Standard IRO-006-WECC-2.

Respectfully submitted,

*/s/ Lauren Perotti*


Sandy Mooy
Associate General Counsel
Ruben Arredondo
Senior Legal Counsel
Western Electricity Coordinating Council
155 North 400 West, Suite 200
Salt Lake City, UT 84103
(801) 582-0353
smooy@wecc.org
rarredondo@wecc.org

*Counsel for the Western Electricity Coordinating Council*

Lauren Perotti
Senior Counsel
North American Electric Reliability Corporation
1325 G Street, N.W., Suite 600
Washington, D.C. 20005
(202) 400-3000
lauren.perotti@nerc.net

*Counsel for the North American Electric Reliability Corporation*


Date: March 6, 2019

**Exhibit A**

**Proposed Regional Reliability Standard IRO-006-WECC-3**
**Qualified Path Unscheduled Flow (USF) Relief**

**Exhibit A**

**Proposed Regional Reliability Standard IRO-006-WECC-3**
**Qualified Path Unscheduled Flow (USF) Relief**
**Clean**

## A. Introduction

1. **Title:** Qualified Path Unscheduled Flow (USF) Relief

2. **Number:** IRO-006-WECC-3

3. **Purpose:** To mitigate flows on Qualified Paths to reliable levels during Real-time operations.

4. **Applicability**

   **4.1.** Reliability Coordinator

   **4.2** Balancing Authority

5. **Effective Date:** The first day of the second quarter following applicable regulatory approval. See Implementation Plan.

## B. Requirements and Measures

**R1.** Each Reliability Coordinator receiving a request for Curtailments for unscheduled flow transmission relief on a Qualified Path within its Reliability Coordinator Area shall either approve or deny that request within five minutes of receipt. *[Violation Risk Factor: Medium] [Time Horizon: Real-time Operations]*

**M1.** Each Reliability Coordinator receiving a request for Curtailments for unscheduled flow transmission relief on a Qualified Path within its Reliability Coordinator Area, per requirement R1, will have evidence that it approved or denied that request within five minutes of receipt. Evidence may include, but is not limited to documentation of either an active or passive approval.

**R2.** Each Balancing Authority receiving an approved request for unscheduled flow transmission relief on a Qualified Path per Requirement R1, shall perform any of the following actions to meet that request: *[Violation Risk Factor: Medium] [Time Horizon: Real-time Operations]*

- Approve curtailment requests to the schedules as submitted
- Implement alternative actions

**M2.** Each Balancing Authority receiving an approved request for unscheduled flow transmission relief on a Qualified Path per Requirement R1, will have

evidence that it performed the actions allowed in Requirement R2, to meet that request.

## C. Compliance

### 1. Compliance Monitoring Process

#### 1.1. Compliance Enforcement Authority:

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

#### 1.2. Evidence Retention:

The following evidence retention period(s) identify the period of time an entity is required to retain specific evidence to demonstrate compliance. For instances where the evidence retention period specified below is shorter than the time since the last audit, the Compliance Enforcement Authority may ask an entity to provide other evidence to show that it was compliant for the full time period since the last audit.

The applicable entity 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 and each Balancing Authority shall keep data or evidence to show compliance with Requirements R1 and R2 for three calendar years or for the duration of any Compliance Enforcement Authority investigation, whichever is longer.
- If the Reliability Coordinator or Balancing Authority is found noncompliant, it shall keep information related to the noncompliance until found compliant or for the duration specified above, whichever is longer.

#### 1.3. Compliance Monitoring and Enforcement Program

As defined in the NERC Rules of Procedure, "Compliance Monitoring and Enforcement Program" 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.

## Violation Severity Levels

| | Time Horizon | VRF | Violation Severity Levels | | | |
|---|---|---|---|---|---|---|
| | | | Lower VSL | Moderate VSL | High VSL | Severe VSL |
| **R1** | Real-time Operations | Medium | Not Applicable | Not Applicable | Not Applicable | There shall be a Severe level of noncompliance if there is one instance during a calendar month in which the Reliability Coordinator approved (actively or passively) or denied a request for unscheduled flow transmission relief on a Qualified Path greater than five minutes after receipt that request. |
| **R2** | Real-time Operations | Medium | There shall be a Lower Level of noncompliance if there is less than 100% relief requirement provided but greater than or equal to 90% relief requirement provided or the relief requirement was less | There shall be a Moderate Level of noncompliance if there is less than 90% relief requirement provided but greater than or equal to 75% relief requirement provided. | There shall be a High Level of noncompliance if there is less than 75% relief requirement provided but greater than or equal to 60% relief requirement provided. | There shall be a Severe Level of noncompliance if there is less than 60% relief requirement provided. |

| | Time Horizon | VRF | Violation Severity Levels | | | |
|---|---|---|---|---|---|---|
| | | | Lower VSL | Moderate VSL | High VSL | Severe VSL |
| | | | than 5 MW and was not fully provided. | | | |

## D. Regional Variances

None.

## E. Associated Documents

Western Interconnection Unscheduled Flow Mitigation Plan (WIUFMP).

## Version History

| Version | Date | Action | Change Tracking |
|---|---|---|---|
| 1 | April 16, 2008 | Permanent Replacement Standard for IRO-STD-006-0 | |
| 1 | February 10, 2009 | Adopted by NERC Board of Trustees | |
| 1 | March 17, 2011 | FERC Order 746 issued by FERC approving IRO-006-WECC-1 (FERC approval effective on May 24, 2011) | |
| 1 | May 2, 2012 | Updated the requirements to R1. and R2. instead of R.1. and R1.2. | |
| 1 | July 1, 2011 | Effective Date | No Change |
| 2 | February 7, 2013 | Adopted by NERC Board of Trustees | |
| 2 | May 13, 2014 | FERC letter order issued approving IRO-006-WECC-2 (effective July 1, 2014). | |
| 3 | February 7, 2019 | Adopted by the NERC Board of Trustees | Five-year review. Defined term "Qualified Transfer Path" changed to "Qualified Path" as included in the Western Interconnection Unscheduled Flow Mitigation Plan, as approved by FERC. The following defined terms were retired: 1) Qualified Transfer Path, 2) Contributing Schedule, 3) Qualified Controllable Device, 4) Relief Requirement, 5) Transfer Distribution Factor, and 6) Qualified Transfer Path Curtailment Event. |

**Exhibit A**

**Proposed Regional Reliability Standard IRO-006-WECC-3**
**Qualified Path Unscheduled Flow (USF) Relief**

**Redline**

## A. ~~A.~~ Introduction

1. **Title:** Qualified ~~Transfer~~ Path Unscheduled Flow (USF) Relief

2. **Number:** IRO-006-WECC-~~2~~3

3. **Purpose:** ~~Mitigation of transmission overloads due to unscheduled flow~~To mitigate flows on Qualified ~~Transfer~~ Paths~~.~~ to reliable levels during real-time operations

4. **Applicability**

   **4.1.** ~~Balancing Authority~~

   ~~4.2~~ Reliability Coordinator

   **4.2** Balancing Authority

5. **Effective Date:** ~~On the latter of the~~The first day of the ~~first~~second quarter ~~at least 45 days after Regulatory approval, or upon complete implementation of~~ following applicable ~~webSAS changes and FERC approval of this standard and the revised Unscheduled Flow Mitigation~~regulatory approval. See Implementation Plan ~~Documents.~~.

## B. ~~B.~~ Requirements and Measures

**R1.** Each Reliability Coordinator receiving a request for Curtailments for unscheduled flow transmission relief on a Qualified Path within its Reliability Coordinator Area shall either approve or deny ~~a~~that request within five minutes of ~~receiving the request for unscheduled flow transmission relief from the Transmission Operator of a Qualified Transfer Path that will result in the calculation of a Relief Requirement.~~receipt. *[Violation Risk Factor: Medium] [Time Horizon: Real-time Operations]*

**M1.** Each Reliability Coordinator receiving a request for Curtailments for unscheduled flow transmission relief on a Qualified Path within its Reliability Coordinator Area, per requirement R1, will have evidence that it approved or denied that request within five minutes of receipt. Evidence may include, but is not limited to documentation of either an active or passive approval.

**R2.** Each Balancing Authority receiving an approved request for unscheduled flow transmission relief on a Qualified Path per Requirement R1, shall perform any ~~combination~~ of the following actions ~~meeting the Relief Requirement upon receiving a request for relief as described in Requirement R1~~to meet that request: *[Violation Risk Factor: Medium] [Time Horizon: Real-time Operations]*

- Approve curtailment requests to the schedules as submitted
- Implement alternative actions

## ~~C. Measures~~

~~**M1.** The Reliability Coordinator shall~~ **M2.** Each Balancing Authority receiving an approved request for unscheduled flow transmission relief on a Qualified Path per Requirement R1, will have evidence that it ~~approved or denied~~performed the ~~request within five minutes of receiving a request for relief,~~actions allowed in ~~accordance with Requirement R1. Evidence may include, but is not limited to, documentation of either an active or passive approval.~~

~~Each Balancing Authority shall have evidence that it provided the Relief~~ Requirement ~~through Contributing Schedules curtailments, alternative actions, or a combination that collectively meets the Relief Requirement as directed in Requirement R.2.~~R2, to meet that request.

## C. ~~D.~~ Compliance

### 1. Compliance Monitoring Process~~:~~

#### 1.1. Compliance Enforcement Authority:

- ~~Regional Entity~~
- ~~If the Responsible Entity works for the Regional Entity, then the Regional Entity will establish an agreement with the ERO or another entity approved by the ERO and FERC (i.e., another Regional Entity) to be responsible for compliance enforcement.~~

~~If the Responsible Entity is also a Regional Entity, the ERO or a Regional Entity approved by the ERO and FERC or other applicable governmental authorities shall serve as the~~ As defined in the NERC Rules of Procedure, "Compliance Enforcement Authority~~.~~" means NERC or the Regional Entity in their respective roles of monitoring and enforcing compliance with the NERC Reliability Standards.

#### 1.2. Evidence Retention:

The following evidence retention ~~periods~~period(s) identify the period of time an entity is required to retain specific evidence to demonstrate compliance. For instances where the evidence retention period specified below is shorter than the time since the last audit, the Compliance Enforcement Authority may ask an entity to provide other evidence to show that it was ~~complaint~~compliant for the full ~~-~~-time period since the last audit.

~~Each Balancing Authority and Reliability Coordinator~~The applicable entity 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.

- ~~The Balancing Authority and~~ Each Reliability Coordinator and each Balancing Authority shall ~~retain~~keep data or evidence to show compliance with Requirements R1 and R2, for three calendar years or for the duration of any Compliance Enforcement Authority investigation~~;~~, whichever is longer.
- If ~~a Balancing Authority or~~ the Reliability Coordinator or Balancing Authority is found non-compliant, it shall keep information related to the non-compliance until found compliant or for the duration specified above, whichever is longer.

## 1.3. Compliance Monitoring and Enforcement Program

As defined in the NERC Rules of Procedure, "Compliance Monitoring and Enforcement Program" 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.

## Violation Severity Levels

| | Time Horizon | VRF | Violation Severity Levels | | | |
|---|---|---|---|---|---|---|
| | | | Lower VSL | Moderate VSL | High VSL | Severe VSL |

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

**~~1.3. Compliance Monitoring and Assessment Processes:~~**

- ~~Compliance Audit~~
- ~~Self-Certification~~
- ~~Spot Checking~~
- ~~Compliance Investigation~~
- ~~Self-Reporting~~
- ~~Complaint~~

**~~1.4. Additional Compliance Information:~~**

~~Compliance shall be determined by a single event, per path, per calendar month (at a minimum) provided at least one event occurs in that month.~~

| | | | | | | |
|---|---|---|---|---|---|---|
| ~~R1~~ | Real Time Operations | Medium | Not Applicable | Not Applicable | Not Applicable | There shall be a Severe level of non-compliance if there is one instance during a calendar month in which the |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | | | | | Reliability Coordinator approved (actively or passively) or denied a request for unscheduled flow transmission relief on a Qualified Path, greater than five minutes after receipt that request. |
| **R2** | Real Time Operations | Medium | There shall be a Lower Level of non-compliance if there is less than 100% relief requirement provided but greater than or equal to 90% relief requirement provided or the relief requirement was less than 5 MW and was not fully provided. | There shall be a Moderate Level of non-compliance if there is less than 90% relief requirement provided but greater than or equal to 75% relief requirement provided. | There shall be a High Level of non-compliance if there is less than 75% relief requirement provided but greater than or equal to 60% relief requirement provided. | There shall be a Severe Level of non-compliance if there is less than 60% relief requirement provided. |

## D. Regional Variances

None.

## E. Associated Documents

Western Interconnection Unscheduled Flow Mitigation Plan, (WIUFMP)

## Version History

| Version | Date | Action | Change Tracking |
|---|---|---|---|
| 1 | April 16, 2008 | Permanent Replacement Standard for IRO-STD-006-0 | |
| 1 | February 10, 2009 | Adopted by NERC Board of Trustees | |
| 1 | March 17, 2011 | FERC Order 746 issued by FERC approving IRO-006-WECC-1 (FERC approval effective on May 24, 2011) | |
| 1 | May 2, 2012 | Updated the requirements to R1. and R2. instead of R.1. and R1.2. | |
| 1 | July 1, 2011 | Effective Date | No ~~change~~Change |
| 2 | February 7, 2013 | Adopted by NERC Board of Trustees | |
| 2 | May 13, 2014 | FERC letter order issued approving IRO-006-WECC-2 (effective July 1, 2014). | |
| 3 | February 7, 2019 | Adopted by the NERC Board of Trustees | Five-year review. Defined term "Qualified Transfer Path" changed to "Qualified Path" as included in the Western Interconnection Unscheduled Flow Mitigation Plan, as approved by FERC. The following defined terms were retired: 1) Qualified Transfer Path, 2) Contributing Schedule, 3) Qualified Controllable Device, 4) Relief Requirement, 5) Transfer Distribution |

| | | | |
|---|---|---|---|
| | | | Factor, and 6) Qualified Transfer Path Curtailment Event. |

**Exhibit B**

**Implementation Plan**

# Implementation Plan

# WECC-0130 IRO-006-WECC-3
# Qualified Transfer Path Unscheduled Flow (USF) Relief
# Five-year Review

## Standards Authorization Request

WECC-0130 IRO-006-WECC-3 Five-year Review SAR

## Approvals Required

- WECC Board of Directors — December 5, 2018
- NERC Board of Trustees — Pending
- FERC — Pending

## Applicable Entities

**4.** Applicability
- **4.1** Reliability Coordinator
- **4.2** Balancing Authority

## Conforming Changes to Other Standards and the NERC Glossary of Terms Used in Reliability Standards

No conforming changes to other standards are required to implement this project; however, changes to the NERC Glossary of Terms Used in Reliability Standards (Glossary) will be required.

Of the six following terms, the first five would be retired because they are no longer used in any NERC Standards. The sixth term, "Qualified Transfer Path," would be retired and replaced with the term "Qualified Path" included in the FERC-approved Western Interconnection Unscheduled Flow Mitigation Plan (WIUFMP).

1. Contributing Schedule
2. Qualified Controllable Device
3. Relief Requirement
4. Transfer Distribution Factor
5. Qualified Transfer Path Curtailment Event[1]

[1] This term was added to the Implementation Plan in response to comments received in Posting 2.

6. Qualified Transfer Path

The proposed definition for Qualified Path, as currently used in the FERC-approved WIUFMP, is as follows:

"Qualified Path (QP): A transmission element, or group of transmission elements that has qualified for inclusion into the Western Interconnection Unscheduled Flow Mitigation (WIUFMP).[2]

## Proposed Effective Date

The Effective Date is proposed to be the first day of the second quarter following applicable regulatory approval.

## Justification

The WECC-0130, IRO-006-WECC-3, Qualified Transfer Path Unscheduled Flow (USF) Relief, Five-year Review Drafting Team (DT) reviewed NERC Standards, both in effect and those standards approved by the NERC Board of trustees but pending regulatory disposition. The DT concluded that the proposed changes would have no impact on peripheral standards, nor would the changes add any new burden to the Applicable Entities.

## Consideration of Early Compliance

The drafting team foresees no concerns with early compliance.

## Required Retirements

The currently approved standard (IRO-006-WECC-2) should be retired immediately prior to the Effective Date of this version, IRO-006-WECC-3. No other retirements or modifications to standards are needed.

Please refer to the above section *Conforming Changes to Other Standards and NERC Glossary of Terms Used in Reliability Standards* for details on adjustments to Glossary terms.

[2] Additional details on proposed Glossary changes are contained in WECC-0130 IRO-006-WECC-3, Five-year Review, Attachment R2 – Posting 2 Response to Comments.

**Exhibit C**

**Order No. 672 Criteria**

# Order 672 Criteria

## WECC-0130 IRO-006-WECC-3
## Qualified Transfer Path Unscheduled Flow (USF) Relief
## Five-year Review

The North American Electric Reliability Corporation (NERC) is responsible for ensuring that the Reliability Standards, Violation Risk Factors (VRF), Violation Severity Levels (VSL), definitions, Variances, and Interpretations developed by drafting teams are developed in accordance with NERC processes. These standards must also meet NERC's benchmarks for Reliability Standards, as well as criteria for governmental approval.

In Federal Energy Regulatory Commission (FERC) Order No. 672,[1] FERC identified criteria that it will use to analyze proposed Reliability Standards for approval to ensure they are just, reasonable, not unduly discriminatory or preferential, and in the public interest. The discussion below identifies these factors, and explains how the proposed Reliability Standard meets or exceeds the criteria:

**1. Proposed Reliability Standards must be designed to achieve a specified reliability goal.**

The proposed Reliability Standard must address a reliability concern that falls within the requirements of Section 215 of the Federal Power Act. That is, it must provide for the reliable operation of Bulk Power System facilities. It may not extend beyond reliable operation of such facilities or apply to other facilities. Such facilities include all those necessary for operating an interconnected electric energy transmission network, or any portion of that network, including control systems. The proposed Reliability Standard may apply to any design of planned additions or modifications of such facilities that is necessary to provide for reliable operation. It may also apply to Cybersecurity protection. Order No. 672 at P 321.

Further, NERC Reliability Standards are based on certain reliability principles that define the foundation of reliability for North American bulk power systems. Each Reliability Standard shall enable or support one or more of the reliability principles, thereby ensuring that each standard serves a purpose in support of reliability of the North American bulk power systems. Each Reliability Standard shall also be consistent with all of the reliability principles, thereby ensuring that no standard undermines reliability through an unintended consequence. NERC Reliability Principles[2]

The Purpose of WECC IRO-006-WECC-3 is to "mitigate flows on Qualified Paths to reliable levels during real-time operations."

[1] FERC Order 672
[2] NERC Reliability Principles

Of the eight NERC Reliability Principles, this standard addresses Reliability Principle 1, which states:

*Reliability Principle 1*

Interconnected bulk power systems shall be planned and operated in a coordinated manner to perform reliably under normal and abnormal conditions as defined in the NERC Standards.

**2. Proposed Reliability Standards must contain a technically sound method to achieve the goal.**

The proposed Reliability Standard must be designed to achieve a specified reliability goal and must contain a technically sound means to achieve this goal. Although any person may propose a topic for a Reliability Standard to the Electric Reliability Organization (ERO), in the ERO's process, the specific proposed Reliability Standard should be developed initially by persons within the electric power industry and community with a high level of technical expertise and be based on sound technical and engineering criteria. It should be based on actual data and lessons learned from past operating incidents, where appropriate. The process for ERO approval of a proposed Reliability Standard should be fair and open to all interested persons. Order No. 672 at P 324.

*Standard Development*

This proposed Reliability Standard was developed using the NERC and Western Electricity Coordinating Council (WECC) Standards development processes approved by FERC and in effect at each point in the process. Among other things, these processes include drafting of the standard by a drafting team composed of subject matter experts (SME); biographies of those SMEs are provided with this filing.

These processes also include repeated public iterative comment/response cycles whereby comments are received from the industry, and responses to those comments are provided by the drafting team.

*Technically Sound*

On March 17, 2011, FERC approved IRO-006-WECC-1 with an effective date of May 24, 2011.[3] The purpose of the standard was to "mitigate transmission overloads due to unscheduled flow on a transfer path designated by WECC as being qualified for unscheduled flow mitigation."[4] After due diligence, FERC concluded that IRO-006-WECC-1 represented an improvement to reliability.[5]

On May 13, 2017, FERC held that Version 2 of the standard (IRO-006-WECC-2) was just, reasonable, not unduly discriminatory or preferential, in the public interest, and that the standard would "protect and improve reliability in the Western Interconnection by mitigating transmission overloads due to unscheduled flow on Qualified Transfer Paths."[6]

[3] FERC Order 746
[4] FERC Order 746, Summary
[5] FERC Order 746, P28
[6] FERC Letter Order. Docket No. RD14-9-000, P9

IRO-006-WECC-3 retains the reliability related content of its predecessor while updating the document's template, syntax, structure, and eliminating obsolete definitions.

**3. Proposed Reliability Standards must be applicable to users, owners, and operators of the bulk power system, and not others.**

The proposed Reliability Standard may impose a requirement on any user, owner, or operator of such facilities, but not on others. Order No. 672 at P 322.

The Applicability section of the proposed standard is as follows:

**4. Applicability**[7]

**4.1.** Reliability Coordinator

**4.2** Balancing Authority

**4. Proposed Reliability Standards must be clear and unambiguous as to what is required and who is required to comply.**

The proposed Reliability Standard should be clear and unambiguous regarding what is required and who is required to comply. Users, owners, and operators of the Bulk Power System must know what they are required to do to maintain reliability. Order No. 672 at P 325.

This project was developed using the WECC Reliability Standards Development Procedures (Procedures) as approved by WECC/NERC and FERC. Per the Procedures, the project was posted for two 30-day public comment periods.[8] None of the comments received raised the issue of ambiguity. Each requirement continues to state the Applicable Entity required to act and the act that is required.

All comments received on the project can be viewed in their original format on the WECC-0130 project page under the "Submit and review Comments" accordion.[9]

**5. Proposed Reliability Standards must include clear and understandable consequences and a range of penalties (monetary and/or non-monetary) for a violation.**

The possible consequences, including range of possible penalties, for violating a proposed Reliability Standard should be clear and understandable by those who must comply. Order No. 672 at P 326.

This project makes no changes to the Violation Risk Factors.

This project makes no change to the *levels* of the Violation Severity Levels (VSL); however, the syntax in the VSL table was updated and use of the defined term Relief Requirement was converted to a lowercase use because the defined term is proposed for retirement.

[7] In Version 2, the order of Applicable Entities is Balancing Authority followed by Reliability Coordinator. The order is reversed in Version 3 to match the order in which the entities appear in the Requirements.
[8] Posting 1 opened May 22, 2018 and closed June 22, 2018. Posting 2 opened July 18, 2018 and closed August 20, 2018.
[9] https://www.wecc.biz/Standards/Pages/WECC-0130.aspx

**6. Proposed Reliability Standards must identify a clear and objective criterion or measure for compliance, so that it can be enforced in a consistent and non-preferential manner.**

There should be a clear criterion or measure of whether an entity is in compliance with a proposed Reliability Standard. It should contain or be accompanied by an objective measure of compliance so that it can be enforced and so that enforcement can be applied in a consistent and non-preferential manner. Order No. 672 at P 327.

In IRO-006-WECC-2, Requirement R2 lacked a designated Measure.

In IRO-006-WECC-3, Measure M1 was adjusted to current drafting conventions and a designated Measure was added for Requirement R2.

**7. Proposed Reliability Standards should achieve a reliability goal effectively and efficiently - but does not necessarily have to reflect "best practices" without regard to implementation cost.**

The proposed Reliability Standard does not necessarily have to reflect the optimal method, or "best practice," for achieving its reliability goal without regard to implementation cost or historical regional infrastructure design. It should however achieve its reliability goal effectively and efficiently. Order No. 672 at P 328.

IRO-006-WECC-3 does not represent an appreciable change in the practical application of the standard. During the two posting periods, no concerns were raised regarding implementation costs or historical regional infrastructure.

IRO-006-WECC-3 reaches its goals effectively and efficiently by using existing business practices. Through joint coordination of the Balancing Authority and the Reliability Coordinator, as required under the proposed standard, potential transmission overloading would be uniformly mitigated.

**8. Proposed Reliability Standards cannot be "lowest common denominator," i.e., cannot reflect a compromise that does not adequately protect bulk power system reliability.**

The proposed Reliability Standard must not simply reflect a compromise in the ERO's Reliability Standard development process based on the least effective North American practice—the so-called "lowest common denominator"—if such practice does not adequately protect Bulk Power System reliability. Although the Commission will give due weight to the technical expertise of the ERO, we will not hesitate to remand a proposed Reliability Standard if we are convinced it is not adequate to protect reliability. Order No. 672 at P 329.

IRO-006-WECC-3 does not represent an appreciable change in the practical application of the standard.

**9. Proposed Reliability Standards may consider costs to implement for smaller entities but not at consequence of less than excellence in operating system reliability.**

A proposed Reliability Standard may consider the size of the entity that must comply with the Reliability Standard and the cost to those entities of implementing the proposed Reliability Standard.

However, the ERO should not propose a "lowest common denominator" Reliability Standard that would achieve less than excellence in operating system reliability solely to protect against reasonable expenses for supporting this vital national infrastructure. For example, a small owner or operator of the Bulk Power System must bear the cost of complying with each Reliability Standard that applies to it. Order No. 672 at P 330.

During the development of the project, the industry raised no such concerns.

**10. 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 area or approach.**

A proposed Reliability Standard should be designed to apply throughout the interconnected North American Bulk Power System, to the maximum extent this is achievable with a single Reliability Standard. The proposed Reliability Standard should not be based on a single geographic or regional model but should take into account geographic variations in grid characteristics, terrain, weather, and other such factors; it should also take into account regional variations in the organizational 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. Order No. 672 at P 331.

In the Order 740 Remand at P4, the Commission states that:

"Reliability Standards that the ERO proposes to the Commission may include Reliability Standards that are proposed to the ERO by a Regional Entity… When the ERO reviews a regional Reliability Standard that would be applicable on an interconnection-wide basis and that has been proposed by a Regional Entity organized on an interconnection-wide basis, the ERO must rebuttably presume that the regional Reliability Standard is just, reasonable, not unduly discriminatory or preferential, and in the public interest. In turn, the Commission must give "due weight" to the technical expertise of the ERO and of a Regional Entity organized on an interconnection-wide basis."

Further, regional entities may propose Regional Reliability Standards that set more stringent reliability requirements than the NERC Reliability Standard or cover matters not covered by an existing NERC Reliability Standard. NERC Rules of Procedure, Section 312, Regional Reliability Standards.

The proposed standard is applicable solely within the Western Interconnection.

The proposed standard is more stringent than existing NERC Reliability Standards.[10]

[10] It should be noted that IRO-006-WECC-3 continues the requirement to act within five minutes of a request, as previously contained in both Version 1 and Version 2. In approving Version 1, FERC stated in Order 746, P11:
"The Standard goes beyond the corresponding NERC Reliability Standard by requiring a reliability coordinator to approve or deny a transmission operator's curtailment request within five minutes."
"Accordingly, the Commission adopts the NOPR proposal and approves regional Reliability Standard IRO-006-WECC-1 as just, reasonable, not unduly discriminatory or preferential, and in the public interest."

The proposed standard addresses matter not covered in any existing NERC Reliability Standard by providing an alternative approach to meeting the same reliability objective based on physical differences in the Western Interconnection; specifically, Qualified Paths.

Version 3 proposes to delete the defined term "Qualified Transfer Path" from the NERC Glossary of Terms Used in Reliability Standards and replace it with the more viable term "Qualified Path" as used in the FERC-approved Western Interconnection Unscheduled Flow Mitigation Plan (WIUFMP). The proposed definition is as follows:

"Qualified Path (QP): A transmission element, or group of transmission elements that has qualified for inclusion into the WIUFMP."

**11. Proposed reliability standards should cause no undue negative effect on competition or restriction of the grid.**

As directed by section 215 of the FPA, the Commission itself will give special attention to the effect of a proposed Reliability Standard on competition. The ERO should attempt to develop a proposed Reliability Standard that has no undue negative effect on competition. Among other possible considerations, a proposed Reliability Standard should not unreasonably restrict available transmission capability on the Bulk Power System beyond any restriction necessary for reliability and should not limit use of the Bulk Power System in an unduly preferential manner. It should not create an undue advantage for one competitor over another. Order No. 672 at P 332

The assigned drafting team does not foresee any negative impacts on competition resulting from the changes proposed for this project.

During the development phase of this project, the industry raised no concerns regarding competition or restrictive use of the grid.

**12. The implementation time for the proposed Reliability Standards must be reasonable.**

In considering whether a proposed Reliability Standard is just and reasonable, the Commission will consider also the timetable for implementation of the new requirements, including how the proposal balances any urgency in the need to implement it against the reasonableness of the time allowed for those who must comply to develop the necessary procedures, software, facilities, staffing or other relevant capability. Order No. 672 at P 333

In accordance with the WECC Reliability Standards Development Procedures, an implementation plan for the proposed standard was included with Posting 1 of this project. The Implementation Plan is included as Attachment F of this filing.

The proposed effective date for this project is the first day of the second quarter following applicable regulatory approval.

The project drafting team concluded that the proposed changes: 1) would have no impact on peripheral standards, 2) would add no new burden to the Applicable Entities, and 3) could be implemented earlier than requested without resulting in any negative impact to reliability.

**13. The Reliability Standard development process must be open and fair.**

Further, in considering whether a proposed Reliability Standard meets the legal standard of review, we will entertain comments about whether the ERO implemented its Commission-approved Reliability Standard development process for the development of the proposed Reliability Standard in a proper manner, especially whether the process was open and fair. However, we caution that we will not be sympathetic to arguments by interested parties that choose, for whatever reason, not to participate in the ERO's Reliability Standard development process if it is conducted in good faith in accordance with the procedures approved by the Commission. Order No. 672 at P 334

WECC followed the WECC Reliability Standards Development Procedures (Procedures) approved by FERC in effect at the time of each step in the process.

In accordance with the Procedures, all drafting team meetings are open to the public.

All drafting team meetings were announced via the WECC Standards Email List for the period prescribed in the Procedures. Notice of the meetings was provided to NERC and posted on the WECC Calendar along with meeting minutes.

All meetings were supported by a telephone conference bridge associated with an on-line internet visual capability allowing all participants to see the document(s) as they were being developed. Further, this team held an open-mic Standards Briefing prior to balloting affording the industry an additional opportunity to have its questions addressed.

This project was posted twice for public comment at WECC.

Comments and the associated responses are posted on the WECC Web Site at the WECC-0130 project page on the Submitted and Review Comments accordion.[11] Response to Comments forms were provided with this filing.

In addition to posting under the WECC Procedures, this project was also posted by NERC for 45-days in accordance with NERC's Rules of Procedure and NERC's internal business practices.

**14. Proposed Reliability Standards must balance with other vital public interests.**

Finally, we understand that at times development of a proposed Reliability Standard may require that a particular reliability goal must be balanced against other vital public interests, such as environmental, social, and other goals. We expect the ERO to explain any such balancing in its application for approval of a proposed Reliability Standard. Order No. 672 at P 335

[11] https://www.wecc.biz/Standards/Pages/WECC-0130.aspx

WECC is not aware of any other vital public interests. No such balancing concerns were raised or noted.

**15. Proposed Reliability Standards must consider any other relevant factors.**

In considering whether a proposed Reliability Standard is just and reasonable, [FERC] will consider [several] general factors, as well as other factors that are appropriate for the particular Reliability Standard proposed. Order No. 672 at P 323

WECC is not aware of any other general factors in need of consideration.

# Exhibit D

## Analysis of Violation Severity Levels

# VRF and VSL Justification

## WECC-0130 IRO-006-WECC-3
## Qualified Transfer Path Unscheduled Flow (USF) Relief
## Five-year Review

The Violation Risk Factors did not change.

The Violation Severity Levels (VSL) for Requirements R1 and R2 were updated reflecting prose and syntax changes and the proposed retirement of the defined term "Relief Requirement." The severity *levels* did not change.

| | Time Horizon | VRF | Violation Severity Levels | | | |
|---|---|---|---|---|---|---|
| | | | Lower VSL | Moderate VSL | High VSL | Severe VSL |
| **R1** | Real-~~-t~~Time Operations | Medium | Not Applicable | Not Applicable | Not Applicable | There shall be a Severe level of non-compliance if there is one instance during a calendar month in which the Reliability Coordinator approved (actively or passively) or denied a request for unscheduled flow transmission relief ~~from the Transmission Operator of a~~ on a Qualified ~~Transfer~~ Path, greater than five minutes after receipt of that request.~~notification from the Transmission Operator of a Qualified Transfer Path.~~ |
| **R2** | Real-t-~~T~~ime Operations | Medium | There shall be a Lower Level of non-compliance if there is less than 100% r~~R~~elief r~~R~~equirement provided but greater than or equal to 90% r~~R~~elief r~~R~~equirement provided or the r~~R~~elief r~~R~~equirement was less than 5 MW and was not fully provided. | There shall be a Moderate Level of non-compliance if there is less than 90% r~~R~~elief r~~R~~equirement provided but greater than or equal to 75% r~~R~~elief r~~R~~equirement provided. | There shall be a High Level of non-compliance if there is less than 75% r~~R~~elief r~~R~~equirement provided but greater than or equal to 60% r~~R~~elief r~~R~~equirement provided. | There shall be a Severe Level of non-compliance if there is less than 60% r~~R~~elief r~~R~~equirement provided. |

**Exhibit E**

**Summary of Development History and Complete Record of Development**

# Summary of Development History

## Summary of Development History

The development record for proposed Regional Reliability Standard IRO-006-WECC-3 is summarized below.

### I. Overview of the Standard Drafting Team

When evaluating a proposed Reliability Standard, the Commission is expected to give "due weight" to the technical expertise of the ERO.[1] The technical expertise of the ERO is derived from the standard drafting team selected by the WECC Standards Committee to lead each project in accordance with Step 3 of the WECC Reliability Standards Development Procedures.[2] For this project, the standard drafting team consisted of industry experts, all with a diverse set of experiences. A roster of the Standard Drafting team members is included in **Exhibit F**.

### II. Standard Development History

#### A. Standard Authorization Request Development

Project WECC-0130 IRO-006-WECC-3 – Qualified Transfer Path Unscheduled Flow Relief was initiated on January 12, 2018 with receipt of a proposed Standards Authorization Request ("SAR"). The WECC Standards Committee formally approved the SAR on January 23, 2018.

#### B. First Posting – Comment Period

On May 15, 2018, the standard drafting team agreed by consensus to post proposed Regional Reliability Standard IRO-006-WECC-3 for a 30-day comment period.[3] Proposed

---

1 Section 215(d)(2) of the Federal Power Act; 16 U.S.C. § 824(d)(2) (2012).

2 The WECC Reliability Standards Development Procedures are available at https://www.wecc.biz/Reliability/Reliability%20Standards%20Development%20Procedures%20-%20FERC%20Approved%20Dec%2023%202014.pdf.

3 Posting materials for this posting and subsequent postings are available on the WECC project page, https://www.wecc.org/Standards/Pages/WECC-0130.aspx.

Regional Reliability Standard IRO-006-WECC-3 was posted for a 30-day comment period from May 22, 2018 through June 22, 2018. Based on the comments received, the standard drafting team determined to make substantive comments to the proposed Regional Reliability Standard. Therefore, the proposed standard was posted for an additional comment period.

**C. Second Posting – Comment Period**

Proposed Regional Reliability Standard IRO-006-WECC-3 was posted for another public comment period for 30 days from July 18, 2018 through August 20, 2018. WECC received one set of comments.

**D. Final Ballot**

On September 20, 2018, the WECC Standards Committee approved Regional Reliability Standard IRO-006-WECC-3 to be posted for ballot. The ballot pool opened on September 27, 2018 and closed on October 11, 2018. WECC held a standards briefing on October 17, 2018. The ballot was open from October 19, 2018 through November 2, 2018. Forty-nine individuals joined the ballot pool. Thirty-eight individuals cast votes, providing quorum at 77.6 percent. The standard obtained 38 affirmative votes[4] which was 100 percent of the weighted segment vote.

**E. WECC Board of Directors Approval**

On December 5, 2018, the WECC Board of Directors approved WECC-130 IRO-006 WECC-3.[5]

**F. NERC Comment Period and Board of Trustees Adoption**

NERC posted proposed Regional Reliability Standard IRO-006-WECC-3 for a 45-day public comment period from December 14, 2018 through January 28, 2019. The NERC Board of Trustees adopted the proposed Regional Reliability Standard on February 7, 2019.

---

4 During the ballot period there were 11 individuals that did not cast a vote.

5 *See* https://www.wecc.org/Administrative/December%202018%20Board%20Material.pdf

# Complete Record of Development

**Steven Rueckert**
155 North 400 West
Salt Lake City, Utah
84103

January 31, 2019

Subject: Notification of Completion
WECC-0130 IRO-006-WECC-3
Qualified Transfer Path Unscheduled Flow (USF) Relief
Five-year Review

To: Ms. Nasheema Santos
NERC Reliability Standards Department
North American Electric Reliability Corporation
3353 Peachtree Rd. NE, North Tower—Suite 600
Atlanta, GA 30326

Dear Nasheema,

WECC is seeking approval by the NERC Board of Trustees, with subsequent disposition by the Federal Energy Regulatory Commission (FERC), to approve IRO-006-WECC-3 Qualified Path Unscheduled Flow (USF) Relief.

In accordance with the Western Electricity Coordinating Council's (WECC) Reliability Standards Development Procedures (Procedures), the WECC-0130 Drafting Team conducted a five-year review of the WECC Regional Reliability Standard (RRS), making the following proposed changes:

- Clarify the Purpose statement.
- Revise Requirement R1 to account for multiple Reliability Coordinators in the Western Interconnection.
- Update the document to the currently approved NERC Reliability Standards template.
- Replace and retire several defined terms (See Attachment F Implementation Plan).
- Update the Measures to conform with NERC's current drafting conventions.
- Add a Measure for Requirement R2.
- Update the Compliance section.
- Update the Violation Severity Level table.

This project passed with a 100 percent affirmative weighted vote. There were no negative votes and no minority positions.

Thank you for your assistance.

Sincerely,

Steven Rueckert
Director of Standards
Western Electricity Coordinating Council

For documentation support please contact W. Shannon Black, at (503) 307-5782.

| WECC-0130 IRO-006-WECC-3<br>Qualified Transfer Path Unscheduled Flow (USF) Relief<br>Five-year Review |
|---|
| SAR – Standard Authorization Request Attachment A (1) |
| Regional Reliability Standard(s) (Clean Existing) Attachment B (2) |
| Regional Reliability Standard(s) (Clean Proposed) Attachment C (3) |
| Regional Reliability Standard(s) (Existing redlined to Proposed) Attachment D (4) |
| Project Roadmap Attachment E (5) |
| Implementation Plan Attachment F (6) |
| VRF & VSL Justification Attachment G (7) |
| Regional Reliability Standard Submittal Request Attachment H (8) |
| Order 672 Criteria Attachment I (9) |
| Drafting Team Roster with Biographies Attachment J (10) |
| Ballot Pool Members Attachment K (11) |
| Final Ballot Results Attachment L (12) |
| Minority Issues Attachment M (13) |
| Responses to Comments – Posting 1 - WECC Attachment N1 (14) |
| Responses to Comments – Posting 2 - WECC Attachment N2 (15) |

| | | | | |
|---|---|---|---|---|
| IRO-006-WECC-3 | Qualified Path Unscheduled Flow (USF) Relief | Standard Under Development | 12/14/18 – 1/28/19 | Info (16)<br><br>IRO-006-WECC-3<br>Clean (17) \| Redline (18)<br><br>Submit Comments<br><br>Unofficial Comment Form (Word) (19)<br><br>Comments Received (20) |

# Attachment A
# Standard Authorization Request

# WECC-0130 IRO-006-WECC-3
# Qualified Transfer Path Unscheduled Flow (USF) Relief
# Five-year Review

This Standard Authorization Request (SAR) was received on January 12, 2018, and deemed complete the same day. The SAR was approved by the WECC Standards Committee (WSC) on January 23, 2018.

## Introduction

This project is a request to review IRO-006-WECC-2, Qualified Transfer Path Unscheduled Flow (USF) Relief in accordance with the prescribed five-year review requirement contained in the WECC Reliability Standards Development Procedures (Procedures).

## Requester Information

1. Provide your contact information and your alternate's contact information:
    - Your First Name: W. Shannon
    - Your Last Name: Black
    - Your Email Address: sblack@wecc.biz
    - Your Phone Number: (503) 307-5782
    - Organization Name: WECC
    - Alternate's First Name: Steven
    - Alternate's Last Name: Rueckert
    - Alternate's Email Address: steve@wecc.biz
    - Alternate's Phone Number: (801) 883-6878

## Type of Request

2. Specify the type of request: (Select one)
    - Request for five-year review

## Create, Modify or Retire a Document

Provide the requested information for your request to create, modify, or retire the document.

3. Requested Action: (Select one)
    - Request for five-year review
4. Document Type: (Select one)
    - WECC Regional Reliability Standard (RRS)
5. Issue: Specify what industry problem this request is trying to resolve.

In accordance with the WECC Reliability Standards Development Procedures (Procedures), *Maintenance of RRSs and CRTs*, "The WSC shall ensure that each [Regional Reliability Standard] and each [WECC Criterion] is reviewed at least every five years from the effective date of the most recent version of the document under review."

No specific issues are identified.

6. Proposed Remedy: Specify how this request proposes to address the issue described.

   This Standard Authorization Request (SAR) meets the five-year Procedural requirement.

7. Functions: Each function will be reviewed if affected.

   - Balancing Authority
   - Reliability Coordinator

8. Detailed Description:

   The Federal Energy Regulatory Commission (FERC) approved Version 1 of the Regional Reliability Standard (RRS) in Order No. 746. Version 2 was approved via FERC Letter Order Docket No. RD14-9-000 issued on May 13, 2014.

   Version 2 provides for mitigation of transmission overloads due to unscheduled flow on Qualified Transfer Paths and helps ensure mitigation of transmission overloads due to unscheduled flow on Qualified Transfer Paths in the Western Interconnection.[1]

9. Affected Reliability Principles: Which of the following reliability principles is MOST affected by this request? (Select one)

   - **Reliability Principle 1** — *Interconnected bulk electric systems shall be planned and operated in a coordinated manner to perform reliably under normal and abnormal conditions as defined in the NERC Standards.*

## Document Information

Specify the document's title, document number, and affected section regarding the request.

10. Document Title: See above.

[1] Glossary of Terms Used in NERC Reliability Standards, WECC Regional Terms, Updated July 3, 2018

## Reference Uploads

Please reference or upload any affected NERC or WECC Regional Reliability Standards, WECC Criterion, WECC Policies, WECC Guidelines, white papers, technical reports, or other relevant documents. If this request is based on a conflict of law, please include a copy of, or accessible reference to, the specific law or regulatory mandate in conflict.

11. Provide additional comments (if needed)

    NA

## A. Introduction

1. **Title:** Qualified Transfer Path Unscheduled Flow (USF) Relief

2. **Number:** IRO-006-WECC-2

3. **Purpose:** Mitigation of transmission overloads due to unscheduled flow on Qualified Transfer Paths.

4. **Applicability**

   **4.1.** Balancing Authority

   **4.2** Reliability Coordinator

5. **Effective Date:** On the latter of the first day of the first quarter at least 45 days after Regulatory approval, or upon complete implementation of applicable webSAS changes and FERC approval of this standard and the revised Unscheduled Flow Mitigation Plan Documents.

## B. Requirements

**R1.** Each Reliability Coordinator shall approve or deny a request within five minutes of receiving the request for unscheduled flow transmission relief from the Transmission Operator of a Qualified Transfer Path that will result in the calculation of a Relief Requirement. *[Violation Risk Factor: Medium] [Time Horizon: Real-time Operations]*

**R2.** Each Balancing Authority shall perform any combination of the following actions meeting the Relief Requirement upon receiving a request for relief as described in Requirement R1: *[Violation Risk Factor: Medium] [Time Horizon: Real-time Operations]*

- Approve curtailment requests to the schedules as submitted
- Implement alternative actions

## C. Measures

**M1.** The Reliability Coordinator shall have evidence that it approved or denied the request within five minutes of receiving a request for relief, in accordance with Requirement R1. Evidence may include, but is not limited to, documentation of either an active or passive approval.

**M1.1.1** Each Balancing Authority shall have evidence that it provided the Relief Requirement through Contributing Schedules curtailments, alternative actions, or a combination that collectively meets the Relief Requirement as directed in Requirement R.2.

## D. Compliance

### 1. Compliance Monitoring Process:

#### 1.1. Compliance Enforcement Authority

- Regional Entity
- If the Responsible Entity works for the Regional Entity, then the Regional Entity will establish an agreement with the ERO or another entity approved by the ERO and FERC (i.e., another Regional Entity) to be responsible for compliance enforcement.
- If the Responsible Entity is also a Regional Entity, the ERO or a Regional Entity approved by the ERO and FERC or other applicable governmental authorities shall serve as the Compliance Enforcement Authority.

#### 1.2. Evidence Retention:

The following evidence retention periods identify the period of time an entity is required to retain specific evidence to demonstrate compliance. For instances where the evidence retention period specified below is shorter than the time since the last audit, the Compliance Enforcement Authority may ask an entity to provide other evidence to show that it was complaint for the full time period since the last audit.

- Each Balancing Authority and 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.
- The Balancing Authority and Reliability Coordinator shall retain data or evidence for three calendar years or for the duration of any Compliance Enforcement Authority investigation; whichever is longer.
- If a Balancing Authority or Reliability Coordinator is found non-compliant, it shall keep information related to the non-compliance until found compliant or for the duration specified above, whichever is longer.

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

#### 1.3. Compliance Monitoring and Assessment Processes:

- Compliance Audit
- Self-Certification
- Spot Checking
- Compliance Investigation
- Self-Reporting
- Complaint

### 1.4. Additional Compliance Information:

Compliance shall be determined by a single event, per path, per calendar month (at a minimum) provided at least one event occurs in that month.

## Version History

| Version | Date | Action | Change Tracking |
|---|---|---|---|
| 1 | April 16, 2008 | Permanent Replacement Standard for IRO-STD-006-0 | |
| 1 | February 10, 2009 | Adopted by NERC Board of Trustees | |
| 1 | March 17, 2011 | FERC Order 746 issued by FERC approving IRO-006-WECC-1 (FERC approval effective on May 24, 2011) | |
| 1 | May 2, 2012 | Updated the requirements to R1. and R2. instead of R.1. and R1.2. | |
| 1 | July 1, 2011 | Effective Date | No change |
| 2 | February 7, 2013 | Adopted by NERC Board of Trustees | |
| 2 | May 13, 2014 | FERC letter order issued approving IRO-006-WECC-2 (effective July 1, 2014). | |

| | Time Horizon | VRF | Violation Severity Levels | | | |
|---|---|---|---|---|---|---|
| | | | Lower VSL | Moderate VSL | High VSL | Severe VSL |
| **R1** | Real Time Operations | Medium | Not Applicable | Not Applicable | Not Applicable | There shall be a Severe level of non-compliance if there is one instance during a calendar month in which the Reliability Coordinator approved (actively or passively) or denied a request for unscheduled flow transmission relief from the Transmission Operator of a Qualified Transfer Path, greater than five minutes after receipt of notification from the Transmission Operator of a Qualified Transfer Path. |
| **R2** | Real Time Operations | Medium | There shall be a Lower Level of non-compliance if there is less than 100% Relief Requirement provided but greater than or equal to 90% Relief Requirement provided or the Relief Requirement was less | There shall be a Moderate Level of non-compliance if there is less than 90% Relief Requirement provided but greater than or equal to 75% Relief Requirement provided. | There shall be a High Level of non-compliance if there is less than 75% Relief Requirement provided but greater than or equal to 60% Relief Requirement provided. | There shall be a Severe Level of non-compliance if there is less than 60% Relief Requirement provided. |

| | Time Horizon | VRF | Violation Severity Levels | | | |
|---|---|---|---|---|---|---|
| | | | Lower VSL | Moderate VSL | High VSL | Severe VSL |
| | | | than 5 MW and was not fully provided. | | | |

## A. Introduction

1. **Title:** Qualified Path Unscheduled Flow (USF) Relief

2. **Number:** IRO-006-WECC-3

3. **Purpose:** To mitigate flows on Qualified Paths to reliable levels during Real-time operations.

4. **Applicability**

   **4.1.** Reliability Coordinator

   **4.2** Balancing Authority

5. **Effective Date:** The first day of the second quarter following applicable regulatory approval. See Implementation Plan.

## B. Requirements and Measures

**R1.** Each Reliability Coordinator receiving a request for Curtailments for unscheduled flow transmission relief on a Qualified Path within its Reliability Coordinator Area shall either approve or deny that request within five minutes of receipt. *[Violation Risk Factor: Medium] [Time Horizon: Real-time Operations]*

**M1.** Each Reliability Coordinator receiving a request for Curtailments for unscheduled flow transmission relief on a Qualified Path within its Reliability Coordinator Area, per requirement R1, will have evidence that it approved or denied that request within five minutes of receipt. Evidence may include, but is not limited to documentation of either an active or passive approval.

**R2.** Each Balancing Authority receiving an approved request for unscheduled flow transmission relief on a Qualified Path per Requirement R1, shall perform any of the following actions to meet that request: *[Violation Risk Factor: Medium] [Time Horizon: Real-time Operations]*

- Approve curtailment requests to the schedules as submitted
- Implement alternative actions

**M2.** Each Balancing Authority receiving an approved request for unscheduled flow transmission relief on a Qualified Path per Requirement R1, will have

evidence that it performed the actions allowed in Requirement R2, to meet that request.

## C. Compliance

### 1. Compliance Monitoring Process

#### 1.1. Compliance Enforcement Authority:

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

#### 1.2. Evidence Retention:

The following evidence retention period(s) identify the period of time an entity is required to retain specific evidence to demonstrate compliance. For instances where the evidence retention period specified below is shorter than the time since the last audit, the Compliance Enforcement Authority may ask an entity to provide other evidence to show that it was compliant for the full time period since the last audit.

The applicable entity 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 and each Balancing Authority shall keep data or evidence to show compliance with Requirements R1 and R2 for three calendar years or for the duration of any Compliance Enforcement Authority investigation, whichever is longer.
- If the Reliability Coordinator or Balancing Authority is found noncompliant, it shall keep information related to the noncompliance until found compliant or for the duration specified above, whichever is longer.

#### 1.3. Compliance Monitoring and Enforcement Program

As defined in the NERC Rules of Procedure, "Compliance Monitoring and Enforcement Program" 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.

## Violation Severity Levels

| | Time Horizon | VRF | Violation Severity Levels | | | |
|---|---|---|---|---|---|---|
| | | | Lower VSL | Moderate VSL | High VSL | Severe VSL |
| **R1** | Real-time Operations | Medium | Not Applicable | Not Applicable | Not Applicable | There shall be a Severe level of noncompliance if there is one instance during a calendar month in which the Reliability Coordinator approved (actively or passively) or denied a request for unscheduled flow transmission relief on a Qualified Path greater than five minutes after receipt that request. |
| **R2** | Real-time Operations | Medium | There shall be a Lower Level of noncompliance if there is less than 100% relief requirement provided but greater than or equal to 90% relief requirement provided or the relief requirement was less | There shall be a Moderate Level of noncompliance if there is less than 90% relief requirement provided but greater than or equal to 75% relief requirement provided. | There shall be a High Level of noncompliance if there is less than 75% relief requirement provided but greater than or equal to 60% relief requirement provided. | There shall be a Severe Level of noncompliance if there is less than 60% relief requirement provided. |

| | Time Horizon | VRF | Violation Severity Levels | | | |
|---|---|---|---|---|---|---|
| | | | Lower VSL | Moderate VSL | High VSL | Severe VSL |
| | | | than 5 MW and was not fully provided. | | | |

## D. Regional Variances

None.

## E. Associated Documents

Western Interconnection Unscheduled Flow Mitigation Plan (WIUFMP).

## Version History

| Version | Date | Action | Change Tracking |
|---|---|---|---|
| 1 | April 16, 2008 | Permanent Replacement Standard for IRO-STD-006-0 | |
| 1 | February 10, 2009 | Adopted by NERC Board of Trustees | |
| 1 | March 17, 2011 | FERC Order 746 issued by FERC approving IRO-006-WECC-1 (FERC approval effective on May 24, 2011) | |
| 1 | May 2, 2012 | Updated the requirements to R1. and R2. instead of R.1. and R1.2. | |
| 1 | July 1, 2011 | Effective Date | No Change |
| 2 | February 7, 2013 | Adopted by NERC Board of Trustees | |
| 2 | May 13, 2014 | FERC letter order issued approving IRO-006-WECC-2 (effective July 1, 2014). | |
| 3 | TBD | | Five-year review. Defined term "Qualified Transfer Path" changed to "Qualified Path" as included in the Western Interconnection Unscheduled Flow Mitigation Plan, as approved by FERC. The following defined terms were retired: 1) Qualified Transfer Path, 2) Contributing Schedule, 3) Qualified Controllable Device, 3) Relief Requirement, 4) Transfer Distribution Factor. |

# WECC Standard IRO-006-WECC-~~2~~ 3 – Qualified ~~Transfer~~ Path Unscheduled Flow (USF) Relief

## A. ~~A.~~ Introduction

1. **Title:** Qualified ~~Transfer~~ Path Unscheduled Flow (USF) Relief

2. **Number:** IRO-006-WECC-~~2~~3

3. **Purpose:** ~~Mitigation of transmission overloads due to unscheduled flow~~To mitigate flows on Qualified ~~Transfer~~ Paths~~.~~ to reliable levels during real-time operations

4. **Applicability**

   **4.1.** ~~Balancing Authority~~

   ~~4.2~~ Reliability Coordinator

   **4.2** Balancing Authority

5. **Effective Date:** ~~On the latter of the~~The first day of the ~~first~~second quarter ~~at least 45 days after Regulatory approval, or upon complete implementation of~~ following applicable ~~webSAS changes and FERC approval of this standard and the revised Unscheduled Flow Mitigation~~regulatory approval. See Implementation Plan ~~Documents.~~.

## B. ~~B.~~ Requirements and Measures

**R1.** Each Reliability Coordinator receiving a request for Curtailments for unscheduled flow transmission relief on a Qualified Path within its Reliability Coordinator Area shall either approve or deny ~~a~~that request within five minutes of ~~receiving the request for unscheduled flow transmission relief from the Transmission Operator of a Qualified Transfer Path that will result in the calculation of a Relief Requirement.~~receipt. *[Violation Risk Factor: Medium] [Time Horizon: Real-time Operations]*

**M1.** Each Reliability Coordinator receiving a request for Curtailments for unscheduled flow transmission relief on a Qualified Path within its Reliability Coordinator Area, per requirement R1, will have evidence that it approved or denied that request within five minutes of receipt. Evidence may include, but is not limited to documentation of either an active or passive approval.

**R2.** Each Balancing Authority receiving an approved request for unscheduled flow transmission relief on a Qualified Path per Requirement R1, shall perform any ~~combination~~ of the following actions ~~meeting the Relief Requirement upon receiving a request for relief as described in Requirement R1~~to meet that request: *[Violation Risk Factor: Medium] [Time Horizon: Real-time Operations]*

- Approve curtailment requests to the schedules as submitted
- Implement alternative actions

## ~~C. Measures~~

~~**M1.** The Reliability Coordinator shall~~ **M2.** Each Balancing Authority receiving an approved request for unscheduled flow transmission relief on a Qualified Path per Requirement R1, will have evidence that it ~~approved or denied~~performed the ~~request within five minutes of receiving a request for relief,~~actions allowed in ~~accordance with Requirement R1. Evidence may include, but is not limited to, documentation of either an active or passive approval.~~

~~Each Balancing Authority shall have evidence that it provided the Relief~~ Requirement ~~through Contributing Schedules curtailments, alternative actions, or a combination that collectively meets the Relief Requirement as directed in Requirement R.2.~~R2, to meet that request.

## C. ~~D.~~ Compliance

### 1. Compliance Monitoring Process~~:~~

#### 1.1. Compliance Enforcement Authority:

- ~~Regional Entity~~
- ~~If the Responsible Entity works for the Regional Entity, then the Regional Entity will establish an agreement with the ERO or another entity approved by the ERO and FERC (i.e., another Regional Entity) to be responsible for compliance enforcement.~~

~~If the Responsible Entity is also a Regional Entity, the ERO or a Regional Entity approved by the ERO and FERC or other applicable governmental authorities shall serve as the~~ As defined in the NERC Rules of Procedure, "Compliance Enforcement Authority~~.~~" means NERC or the Regional Entity in their respective roles of monitoring and enforcing compliance with the NERC Reliability Standards.

#### 1.2. Evidence Retention:

The following evidence retention ~~periods~~period(s) identify the period of time an entity is required to retain specific evidence to demonstrate compliance. For instances where the evidence retention period specified below is shorter than the time since the last audit, the Compliance Enforcement Authority may ask an entity to provide other evidence to show that it was ~~complaint~~compliant for the full ~~-~~-time period since the last audit.

~~Each Balancing Authority and Reliability Coordinator~~The applicable entity 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.

- ~~The Balancing Authority and~~ Each Reliability Coordinator and each Balancing Authority shall ~~retain~~keep data or evidence to show compliance with Requirements R1 and R2, for three calendar years or for the duration of any Compliance Enforcement Authority investigation~~;~~, whichever is longer.
- If ~~a Balancing Authority or~~ the Reliability Coordinator or Balancing Authority is found non-compliant, it shall keep information related to the non-compliance until found compliant or for the duration specified above, whichever is longer.

### 1.3. Compliance Monitoring and Enforcement Program

As defined in the NERC Rules of Procedure, "Compliance Monitoring and Enforcement Program" 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.

## Violation Severity Levels

| | Time Horizon | VRF | Violation Severity Levels | | | |
|---|---|---|---|---|---|---|
| | | | Lower VSL | Moderate VSL | High VSL | Severe VSL |

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

**~~1.3. Compliance Monitoring and Assessment Processes:~~**

- ~~Compliance Audit~~
- ~~Self-Certification~~
- ~~Spot Checking~~
- ~~Compliance Investigation~~
- ~~Self-Reporting~~
- ~~Complaint~~

**~~1.4. Additional Compliance Information:~~**

~~Compliance shall be determined by a single event, per path, per calendar month (at a minimum) provided at least one event occurs in that month.~~

| | | | | | | |
|---|---|---|---|---|---|---|
| ~~R1~~ | Real Time Operations | Medium | Not Applicable | Not Applicable | Not Applicable | There shall be a Severe level of non-compliance if there is one instance during a calendar month in which the |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | | | | | Reliability Coordinator approved (actively or passively) or denied a request for unscheduled flow transmission relief on a Qualified Path, greater than five minutes after receipt that request. |
| **R2** | Real Time Operations | Medium | There shall be a Lower Level of non-compliance if there is less than 100% relief requirement provided but greater than or equal to 90% relief requirement provided or the relief requirement was less than 5 MW and was not fully provided. | There shall be a Moderate Level of non-compliance if there is less than 90% relief requirement provided but greater than or equal to 75% relief requirement provided. | There shall be a High Level of non-compliance if there is less than 75% relief requirement provided but greater than or equal to 60% relief requirement provided. | There shall be a Severe Level of non-compliance if there is less than 60% relief requirement provided. |

## D. Regional Variances

None.

## E. Associated Documents

Western Interconnection Unscheduled Flow Mitigation Plan, (WIUFMP)

## Version History

| Version | Date | Action | Change Tracking |
|---|---|---|---|
| 1 | April 16, 2008 | Permanent Replacement Standard for IRO-STD-006-0 | |
| 1 | February 10, 2009 | Adopted by NERC Board of Trustees | |
| 1 | March 17, 2011 | FERC Order 746 issued by FERC approving IRO-006-WECC-1 (FERC approval effective on May 24, 2011) | |
| 1 | May 2, 2012 | Updated the requirements to R1. and R2. instead of R.1. and R1.2. | |
| 1 | July 1, 2011 | Effective Date | No ~~change~~Change |
| 2 | February 7, 2013 | Adopted by NERC Board of Trustees | |
| 2 | May 13, 2014 | FERC letter order issued approving IRO-006-WECC-2 (effective July 1, 2014). | |
| 3 | TBD | | Five-year review. Defined term "Qualified Transfer Path" changed to "Qualified Path" as included in the Western Interconnection Unscheduled Flow Mitigation Plan, as approved by FERC. The following defined terms were retired: 1) Qualified Transfer Path, 2) Contributing Schedule, 3) Qualified Controllable Device, 3) Relief Requirement, 4) Transfer Distribution Factor. |

# Attachment E
# Project Roadmap

# WECC-0130 IRO-006-WECC-3
# Qualified Transfer Path Unscheduled Flow (USF) Relief
# Five-year Review

## Project Roadmap

### Description of Current Draft

Per the WECC Reliability Standards Development Procedures (Procedures), this is a mandated five-year review. The WECC-0130 Standard Authorization Request (SAR) did not identify any specific concerns, other than addressing definitions.

This project proposes to:

- Clarify the Purpose statement.
- Revise Requirement R1 to account for multiple Reliability Coordinators in the Western Interconnection.
- Update the document to the currently approved NERC Reliability Standards template.
- Replace and retire several defined terms. (See Attachment F—Implementation Plan.)
- Update the Measures to conform with NERC's current drafting conventions.
- Add a Measure for Requirement R2.
- Update the Compliance section.
- Update the Violation Severity Level table.

In drafting this project, the WECC-0130 Drafting Team (DT) concluded that addressing changes based on the Enhanced Curtailment Calculator (ECC) efforts that are underway in the Western Interconnection would be premature. This project does not preclude an iterative Standard Authorization Request for that purpose.[1]

[1] The ECC objectives are broader than Qualified Paths address in the WECC Interconnection Unscheduled Flow Mitigation Plan (WIUFMP) and are not fully developed as of the conclusion of this project. The primary objectives of the ECC: 1) provide operators with the ability to see exactly what is contributing to flows on the transmission system (including generation, load, interchange schedules) to better enable efficient and reliable actions for mitigating excessive flows contributing to SOL exceedances; 2) provide updated tool to support the Unscheduled Flow Mitigation Plan (UFMP) requirements with increased accuracy achieved by using real-time topology, load, and generation, 3) provide operators with a tool for being predictive by looking into future hours to understand expected transmission flows, and, 4) provide users with the ability to take appropriate actions, such as curtail schedules or adjust generation, in a fair and equitable manner to mitigate SOL exceedances.

| Actions Completed | Date Completed |
|---|---|
| Standards Authorization Request (SAR) received/deemed complete | January 12, 2018 |
| WECC Standards Committee (WSC) approved the SAR | January 23, 2018 |
| Notice of Solicitation—WECC-0130 Drafting Team | January 31, 2018 |
| Drafting Team (DT) meeting | April 10, 2018 |
| Drafting Team (DT) meeting | April 17, 2018 |
| Drafting Team (DT) meeting | May 8, 2018 |
| Drafting Team (DT) meeting | May 15, 2018 |
| Posting 1—Opened | May 22, 2018 |
| Posting 1—Closed | June 22, 2018 |
| Drafting Team (DT) meeting | June 28, 2018 |
| Posting 2—Opened | July 18, 2018 |
| Posting 2—Closed | August 20, 2018 |
| Drafting Team (DT) meeting | September 6, 2018 |
| Drafting Team (DT) meeting | September 14, 2018 |
| WSC approved for ballot | September 20, 2018 |
| Notice of Ballot Pool Forming/Notice of Ballot | September 25, 2018 |
| Ballot Pool opened | September 27, 2018 |
| Notice of Standards Briefing | September 28, 2018 |
| Ballot Pool closed | October 11, 2018 |
| Standards Briefing | October 17, 2018 |
| Ballot opened | October 19, 2018 |
| Ballot closed | November 2, 2018 |
| WSC approves forwarding to WECC Board of Directors (Board) | November 27, 2018 |
| Board approves for NERC/FERC disposition | December 5, 2018 |
| Posting 1—NERC 45 days—open | December 14, 2018 |
| Posting 1—NERC 45 days—closed | January 28, 2019 |
| WECC filed with NERC | January 31, 2019 |

| Anticipated Actions | Target Date |
|---|---|
| NERC Board of Trustees | February 7, 2019 |
| FERC disposition | TBD |

# Attachment F
# Implementation Plan
# WECC-0130 IRO-006-WECC-3
# Qualified Transfer Path Unscheduled Flow (USF) Relief
# Five-year Review

## Standards Authorization Request

WECC-0130 IRO-006-WECC-3 Five-year Review SAR

## Approvals Required

- WECC Board of Directors — December 5, 2018
- NERC Board of Trustees — Pending
- FERC — Pending

## Applicable Entities

**4.** Applicability

**4.1** Reliability Coordinator

**4.2** Balancing Authority

## Conforming Changes to Other Standards and the NERC Glossary of Terms Used in Reliability Standards

No conforming changes to other standards are required to implement this project; however, changes to the NERC Glossary of Terms Used in Reliability Standards (Glossary) will be required.

Of the six following terms, the first five would be retired because they are no longer used in any NERC Standards. The sixth term, "Qualified Transfer Path," would be retired and replaced with the term "Qualified Path" included in the FERC-approved Western Interconnection Unscheduled Flow Mitigation Plan (WIUFMP).

1. Contributing Schedule
2. Qualified Controllable Device
3. Relief Requirement
4. Transfer Distribution Factor
5. Qualified Transfer Path Curtailment Event[1]

[1] This term was added to the Implementation Plan in response to comments received in Posting 2.

6. Qualified Transfer Path

The proposed definition for Qualified Path, as currently used in the FERC-approved WIUFMP, is as follows:

"Qualified Path (QP): A transmission element, or group of transmission elements that has qualified for inclusion into the Western Interconnection Unscheduled Flow Mitigation (WIUFMP).[2]

## Proposed Effective Date

The Effective Date is proposed to be the first day of the second quarter following applicable regulatory approval.

## Justification

The WECC-0130, IRO-006-WECC-3, Qualified Transfer Path Unscheduled Flow (USF) Relief, Five-year Review Drafting Team (DT) reviewed NERC Standards, both in effect and those standards approved by the NERC Board of trustees but pending regulatory disposition. The DT concluded that the proposed changes would have no impact on peripheral standards, nor would the changes add any new burden to the Applicable Entities.

## Consideration of Early Compliance

The drafting team foresees no concerns with early compliance.

## Required Retirements

The currently approved standard (IRO-006-WECC-2) should be retired immediately prior to the Effective Date of this version, IRO-006-WECC-3. No other retirements or modifications to standards are needed.

Please refer to the above section *Conforming Changes to Other Standards and NERC Glossary of Terms Used in Reliability Standards* for details on adjustments to Glossary terms.

[2] Additional details on proposed Glossary changes are contained in WECC-0130 IRO-006-WECC-3, Five-year Review, Attachment R2 – Posting 2 Response to Comments.

# Attachment G
# VRF and VSL Justification

## WECC-0130 IRO-006-WECC-3
## Qualified Transfer Path Unscheduled Flow (USF) Relief
## Five-year Review

The Violation Risk Factors did not change.

The Violation Severity Levels (VSL) for Requirements R1 and R2 were updated reflecting prose and syntax changes and the proposed retirement of the defined term "Relief Requirement." The severity *levels* did not change.

| | Time Horizon | VRF | Violation Severity Levels | | | |
|---|---|---|---|---|---|---|
| | | | Lower VSL | Moderate VSL | High VSL | Severe VSL |
| **R1** | Real-~~-t~~Time Operations | Medium | Not Applicable | Not Applicable | Not Applicable | There shall be a Severe level of non-compliance if there is one instance during a calendar month in which the Reliability Coordinator approved (actively or passively) or denied a request for unscheduled flow transmission relief ~~from the Transmission Operator of a~~ on a Qualified ~~Transfer~~ Path, greater than five minutes after receipt of that request.~~notification from the Transmission Operator of a Qualified Transfer Path.~~ |
| **R2** | Real-t-~~T~~ime Operations | Medium | There shall be a Lower Level of non-compliance if there is less than 100% r~~R~~elief r~~R~~equirement provided but greater than or equal to 90% r~~R~~elief r~~R~~equirement provided or the r~~R~~elief r~~R~~equirement was less than 5 MW and was not fully provided. | There shall be a Moderate Level of non-compliance if there is less than 90% r~~R~~elief r~~R~~equirement provided but greater than or equal to 75% r~~R~~elief r~~R~~equirement provided. | There shall be a High Level of non-compliance if there is less than 75% r~~R~~elief r~~R~~equirement provided but greater than or equal to 60% r~~R~~elief r~~R~~equirement provided. | There shall be a Severe Level of non-compliance if there is less than 60% r~~R~~elief r~~R~~equirement provided. |

**Regional Reliability Standard Submittal**
**Request Attachment H**

| | |
|---|---|
| **Region:** | **Western Electricity Coordinating Council** |
| **Regional Standard Number:** | **IRO-006-WECC-3**[1] |
| **Regional Standard Title:** | **Qualified Transfer Path Unscheduled Flow (USF) Relief** |
| **Date Submitted:** | **January 31, 2019** |
| **Regional Contact Name:** | **Steven Rueckert** |
| **Regional Contact Title:** | **Director of Standards** |
| **Regional Contact Telephone Number:** | **(801) 883-6878** |

**Request (check all that apply):**

- ☐ Retirement of WECC Regional Reliability Standard
- ☐ Interpret an Existing Standard
- ☐ Approval of a new standard
- ☒ Revision of an existing standard: IRO-006-WECC-2
- ☐ Withdrawal of an existing standard
- ☐ Urgent Action

**Has this action been approved by your Board of Directors:**

- ☒ Yes
- ☐ No

**(If no please indicate date standard action is expected along with the current status (e.g., third comment period with anticipated board approval on mm/dd/year)):**

**December 5, 2018, Board of Directors Resolution:**

[1] Numbering is subject to NERC assignment.

| **Board Resolution** |
| --- |
| *Resolved*, that the Western Electricity Coordinating Council (WECC) Board of Directors (Board), acting upon the recommendation of the WECC Standards Committee (WSC) at the meeting of the Board on December 5, 2018, hereby approves IRO-006-WECC-3, Qualified Path Unscheduled Flow (USF) Relief, as presented and attached hereunto. |
| **[Note: The purpose of the remaining questions is to provide NERC with the information needed to file the regional standard(s) with FERC. The information provided may to a large degree be used verbatim. It is extremely important for the entity submitting this form to provide sufficient detail that clearly delineates the scope and justification of the request.]** |
| |

| | |
| --- | --- |
| **Concise statement of the basis and purpose (scope) of request:** | IRO-006-WECC- "2" was approved by FERC on May 13, 2014, via letter order, with an effective date of July 1, 2014. Docket No. RD14-9-000.<br><br>In accordance with the WECC Reliability Standards Development Procedures (Procedures), the WECC Standards Committee shall ensure that each Regional Reliability Standard (RRS) is reviewed at least once every five years from the effective date of the most recent version of the RRS.<br><br>This project is a result of the required five-year review. The following changes are proposed:<br><br>• Clarify the Purpose statement.<br>• Update the document to the currently approved NERC Reliability Standards template.<br>• Minor Revisions to R1 to address multiple Reliability Coordinators in the Western Interconnection.<br>• Update the Measures to conform with NERC's current drafting conventions.<br>• Add a Measure for Requirement R2.<br>• Update the Compliance section.<br>• Update the Violation Severity Level table.<br>• Replace and retire several defined terms. (See Attachment F Implementation Plan for greater detail.)<br><br>Of the six following terms, the first five would be retired because they are no longer used in any NERC Standards. The sixth term, "Qualified Transfer Path," would be retired and replaced with the |

| | |
|---|---|
| | term "Qualified Path" included in the FERC-approved Western Interconnection Unscheduled Flow Mitigation Plan (WIUFMP).<br><br>1. Contributing Schedule<br>2. Qualified Controllable Device<br>3. Relief Requirement<br>4. Transfer Distribution Factor<br>5. Qualified Transfer Path Curtailment Event<br>6. Qualified Transfer Path<br><br>The proposed definition for Qualified Path, as currently used in the FERC-approved WIUFMP, is as follows:<br><br>"Qualified Path (QP): A transmission element, or group of transmission elements that has qualified for inclusion into the WIUFMP."[2] |
| | |
| **Concise statement of the justification of the request:** | Notes for Petition<br>WECC-0130 IRO-006-WECC-3 Five-year Review<br><br>1. This project is required as a mandatory five-year review per the WECC Reliability Standards Development Procedures (Procedures).<br><br>2. This project seeks approval of regional Reliability Standard IRO-006-WECC-3 (Qualified Path Unscheduled Flow (USF) Relief), modification and retirement of multiple regional definitions, an implementation plan, modification to the Violation Severity Levels (VSL), and the retirement of regional Reliability Standard IRO-006-WECC-2.<br><br>3. The purpose of regional Reliability Standard IRO-006-WECC-3 is to mitigate flows on Qualified Paths to reliable levels during real-time operations.<br><br>4. This project seeks retirement of the six terms currently defined in the NERC Glossary of Terms Used in Reliability Standards (Glossary). |

[2] Additional details on proposed Glossary changes are contained in WECC-0130 IRO-006-WECC-3, Five Year Review, Attachment R2 – Posting 2 Response to Comments.

| | |
|---|---|
| | Of the six following terms, the first five would be retired because they are no longer used in any NERC Standards. The sixth term, "Qualified Transfer Path," would be retired and replaced with the term "Qualified Path" included in the FERC-approved Western Interconnection Unscheduled Flow Mitigation Plan (WIUFMP). [3]<br><br>1. Contributing Schedule<br>2. Qualified Controllable Device<br>3. Relief Requirement<br>4. Transfer Distribution Factor<br>5. Qualified Transfer Path Curtailment Event[4]<br>6. Qualified Transfer Path<br><br>The proposed definition for Qualified Path, as currently used in the FERC-approved WIUFMP, is as follows:<br><br>"Qualified Path (QP): A transmission element, or group of transmission elements that has qualified for inclusion into the Western Interconnection WIUFMP."[5]<br><br>4. This project seeks to update the VSL's to reflect the proposed retirement of the NERC defined term "Relief Requirement" and syntax adjustments made to associated requirements. The VSL *levels* have not been altered.<br><br>5. The project seeks an Effective Date of the first day of the second quarter following applicable regulatory approval.<br><br>6. Regional Reliability Standard IRO-006-WECC-3 is more comprehensive than the existing continent-wide |

[3] The currently approved definition of "Qualified Transfer Path" would be retired in favor of "Qualified Path" as currently used in the FERC-approved WECC Interconnection Unscheduled Mitigation Plan (WIUFMP).
The term "Qualified Transfer Path" is defined as, "[A] transfer path designated by the WECC Operating Committee as being qualified for WECC unscheduled flow mitigation." *See Glossary of Terms Used in NERC Reliability Standards* (updated April 5, 2013) (NERC Glossary). The term "Qualified Path" is defined as, "A transmission element, or group of transmission elements that has qualified for inclusion into the Western Interconnection Unscheduled Flow Mitigation Plan (WIUFMP)." *WECC Interconnection Unscheduled Flow Mitigation Plan, as approved by FERC, effective January 1, 2016.*
[4] This term was added to the Implementation Plan in response to comments received in Posting 2.
[5] Additional details on proposed Glossary changes are contained in WECC-0130 IRO-006-WECC-3, Five-Year Review, Attachment R2—Posting 2 Response to Comments.

| | |
|---|---|
| | Reliability Standard addressing transmission loading relief, IRO-006-5, in that the regional Reliability Standard includes additional requirements such as requiring the Reliability Coordinator to respond within five minutes of receiving a request for unscheduled flow transmission relief. However, the additional requirement of the regional Reliability Standard does not increase the reporting burden for entities that operate within the Western Interconnection when compared to the current regional Reliability Standard IRO-006-WECC-2. |

# Attachment I
# Order 672 Criteria

# WECC-0130 IRO-006-WECC-3
# Qualified Transfer Path Unscheduled Flow (USF) Relief
# Five-year Review

The North American Electric Reliability Corporation (NERC) is responsible for ensuring that the Reliability Standards, Violation Risk Factors (VRF), Violation Severity Levels (VSL), definitions, Variances, and Interpretations developed by drafting teams are developed in accordance with NERC processes. These standards must also meet NERC's benchmarks for Reliability Standards, as well as criteria for governmental approval.

In Federal Energy Regulatory Commission (FERC) Order No. 672,[1] FERC identified criteria that it will use to analyze proposed Reliability Standards for approval to ensure they are just, reasonable, not unduly discriminatory or preferential, and in the public interest. The discussion below identifies these factors, and explains how the proposed Reliability Standard meets or exceeds the criteria:

**1. Proposed Reliability Standards must be designed to achieve a specified reliability goal.**

The proposed Reliability Standard must address a reliability concern that falls within the requirements of Section 215 of the Federal Power Act. That is, it must provide for the reliable operation of Bulk Power System facilities. It may not extend beyond reliable operation of such facilities or apply to other facilities. Such facilities include all those necessary for operating an interconnected electric energy transmission network, or any portion of that network, including control systems. The proposed Reliability Standard may apply to any design of planned additions or modifications of such facilities that is necessary to provide for reliable operation. It may also apply to Cybersecurity protection. Order No. 672 at P 321.

Further, NERC Reliability Standards are based on certain reliability principles that define the foundation of reliability for North American bulk power systems. Each Reliability Standard shall enable or support one or more of the reliability principles, thereby ensuring that each standard serves a purpose in support of reliability of the North American bulk power systems. Each Reliability Standard shall also be consistent with all of the reliability principles, thereby ensuring that no standard undermines reliability through an unintended consequence. NERC Reliability Principles[2]

The Purpose of WECC IRO-006-WECC-3 is to "mitigate flows on Qualified Paths to reliable levels during real-time operations."

[1] FERC Order 672
[2] NERC Reliability Principles

Of the eight NERC Reliability Principles, this standard addresses Reliability Principle 1, which states:

*Reliability Principle 1*

Interconnected bulk power systems shall be planned and operated in a coordinated manner to perform reliably under normal and abnormal conditions as defined in the NERC Standards.

**2. Proposed Reliability Standards must contain a technically sound method to achieve the goal.**

The proposed Reliability Standard must be designed to achieve a specified reliability goal and must contain a technically sound means to achieve this goal. Although any person may propose a topic for a Reliability Standard to the Electric Reliability Organization (ERO), in the ERO's process, the specific proposed Reliability Standard should be developed initially by persons within the electric power industry and community with a high level of technical expertise and be based on sound technical and engineering criteria. It should be based on actual data and lessons learned from past operating incidents, where appropriate. The process for ERO approval of a proposed Reliability Standard should be fair and open to all interested persons. Order No. 672 at P 324.

*Standard Development*

This proposed Reliability Standard was developed using the NERC and Western Electricity Coordinating Council (WECC) Standards development processes approved by FERC and in effect at each point in the process. Among other things, these processes include drafting of the standard by a drafting team composed of subject matter experts (SME); biographies of those SMEs are provided with this filing.

These processes also include repeated public iterative comment/response cycles whereby comments are received from the industry, and responses to those comments are provided by the drafting team.

*Technically Sound*

On March 17, 2011, FERC approved IRO-006-WECC-1 with an effective date of May 24, 2011.[3] The purpose of the standard was to "mitigate transmission overloads due to unscheduled flow on a transfer path designated by WECC as being qualified for unscheduled flow mitigation."[4] After due diligence, FERC concluded that IRO-006-WECC-1 represented an improvement to reliability.[5]

On May 13, 2017, FERC held that Version 2 of the standard (IRO-006-WECC-2) was just, reasonable, not unduly discriminatory or preferential, in the public interest, and that the standard would "protect and improve reliability in the Western Interconnection by mitigating transmission overloads due to unscheduled flow on Qualified Transfer Paths."[6]

[3] FERC Order 746
[4] FERC Order 746, Summary
[5] FERC Order 746, P28
[6] FERC Letter Order. Docket No. RD14-9-000, P9

IRO-006-WECC-3 retains the reliability related content of its predecessor while updating the document's template, syntax, structure, and eliminating obsolete definitions.

**3. Proposed Reliability Standards must be applicable to users, owners, and operators of the bulk power system, and not others.**

The proposed Reliability Standard may impose a requirement on any user, owner, or operator of such facilities, but not on others. Order No. 672 at P 322.

The Applicability section of the proposed standard is as follows:

**4. Applicability**[7]

**4.1.** Reliability Coordinator

**4.2** Balancing Authority

**4. Proposed Reliability Standards must be clear and unambiguous as to what is required and who is required to comply.**

The proposed Reliability Standard should be clear and unambiguous regarding what is required and who is required to comply. Users, owners, and operators of the Bulk Power System must know what they are required to do to maintain reliability. Order No. 672 at P 325.

This project was developed using the WECC Reliability Standards Development Procedures (Procedures) as approved by WECC/NERC and FERC. Per the Procedures, the project was posted for two 30-day public comment periods.[8] None of the comments received raised the issue of ambiguity. Each requirement continues to state the Applicable Entity required to act and the act that is required.

All comments received on the project can be viewed in their original format on the WECC-0130 project page under the "Submit and review Comments" accordion.[9]

**5. Proposed Reliability Standards must include clear and understandable consequences and a range of penalties (monetary and/or non-monetary) for a violation.**

The possible consequences, including range of possible penalties, for violating a proposed Reliability Standard should be clear and understandable by those who must comply. Order No. 672 at P 326.

This project makes no changes to the Violation Risk Factors.

This project makes no change to the *levels* of the Violation Severity Levels (VSL); however, the syntax in the VSL table was updated and use of the defined term Relief Requirement was converted to a lowercase use because the defined term is proposed for retirement.

[7] In Version 2, the order of Applicable Entities is Balancing Authority followed by Reliability Coordinator. The order is reversed in Version 3 to match the order in which the entities appear in the Requirements.
[8] Posting 1 opened May 22, 2018 and closed June 22, 2018. Posting 2 opened July 18, 2018 and closed August 20, 2018.
[9] https://www.wecc.biz/Standards/Pages/WECC-0130.aspx

**6. Proposed Reliability Standards must identify a clear and objective criterion or measure for compliance, so that it can be enforced in a consistent and non-preferential manner.**

There should be a clear criterion or measure of whether an entity is in compliance with a proposed Reliability Standard. It should contain or be accompanied by an objective measure of compliance so that it can be enforced and so that enforcement can be applied in a consistent and non-preferential manner. Order No. 672 at P 327.

In IRO-006-WECC-2, Requirement R2 lacked a designated Measure.

In IRO-006-WECC-3, Measure M1 was adjusted to current drafting conventions and a designated Measure was added for Requirement R2.

**7. Proposed Reliability Standards should achieve a reliability goal effectively and efficiently - but does not necessarily have to reflect "best practices" without regard to implementation cost.**

The proposed Reliability Standard does not necessarily have to reflect the optimal method, or "best practice," for achieving its reliability goal without regard to implementation cost or historical regional infrastructure design. It should however achieve its reliability goal effectively and efficiently. Order No. 672 at P 328.

IRO-006-WECC-3 does not represent an appreciable change in the practical application of the standard. During the two posting periods, no concerns were raised regarding implementation costs or historical regional infrastructure.

IRO-006-WECC-3 reaches its goals effectively and efficiently by using existing business practices. Through joint coordination of the Balancing Authority and the Reliability Coordinator, as required under the proposed standard, potential transmission overloading would be uniformly mitigated.

**8. Proposed Reliability Standards cannot be "lowest common denominator," i.e., cannot reflect a compromise that does not adequately protect bulk power system reliability.**

The proposed Reliability Standard must not simply reflect a compromise in the ERO's Reliability Standard development process based on the least effective North American practice—the so-called "lowest common denominator"—if such practice does not adequately protect Bulk Power System reliability. Although the Commission will give due weight to the technical expertise of the ERO, we will not hesitate to remand a proposed Reliability Standard if we are convinced it is not adequate to protect reliability. Order No. 672 at P 329.

IRO-006-WECC-3 does not represent an appreciable change in the practical application of the standard.

**9. Proposed Reliability Standards may consider costs to implement for smaller entities but not at consequence of less than excellence in operating system reliability.**

A proposed Reliability Standard may consider the size of the entity that must comply with the Reliability Standard and the cost to those entities of implementing the proposed Reliability Standard.

However, the ERO should not propose a "lowest common denominator" Reliability Standard that would achieve less than excellence in operating system reliability solely to protect against reasonable expenses for supporting this vital national infrastructure. For example, a small owner or operator of the Bulk Power System must bear the cost of complying with each Reliability Standard that applies to it. Order No. 672 at P 330.

During the development of the project, the industry raised no such concerns.

**10. 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 area or approach.**

A proposed Reliability Standard should be designed to apply throughout the interconnected North American Bulk Power System, to the maximum extent this is achievable with a single Reliability Standard. The proposed Reliability Standard should not be based on a single geographic or regional model but should take into account geographic variations in grid characteristics, terrain, weather, and other such factors; it should also take into account regional variations in the organizational 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. Order No. 672 at P 331.

In the Order 740 Remand at P4, the Commission states that:

"Reliability Standards that the ERO proposes to the Commission may include Reliability Standards that are proposed to the ERO by a Regional Entity… When the ERO reviews a regional Reliability Standard that would be applicable on an interconnection-wide basis and that has been proposed by a Regional Entity organized on an interconnection-wide basis, the ERO must rebuttably presume that the regional Reliability Standard is just, reasonable, not unduly discriminatory or preferential, and in the public interest. In turn, the Commission must give "due weight" to the technical expertise of the ERO and of a Regional Entity organized on an interconnection-wide basis."

Further, regional entities may propose Regional Reliability Standards that set more stringent reliability requirements than the NERC Reliability Standard or cover matters not covered by an existing NERC Reliability Standard. NERC Rules of Procedure, Section 312, Regional Reliability Standards.

The proposed standard is applicable solely within the Western Interconnection.

The proposed standard is more stringent than existing NERC Reliability Standards.[10]

[10] It should be noted that IRO-006-WECC-3 continues the requirement to act within five minutes of a request, as previously contained in both Version 1 and Version 2. In approving Version 1, FERC stated in Order 746, P11:
"The Standard goes beyond the corresponding NERC Reliability Standard by requiring a reliability coordinator to approve or deny a transmission operator's curtailment request within five minutes."
"Accordingly, the Commission adopts the NOPR proposal and approves regional Reliability Standard IRO-006-WECC-1 as just, reasonable, not unduly discriminatory or preferential, and in the public interest."

The proposed standard addresses matter not covered in any existing NERC Reliability Standard by providing an alternative approach to meeting the same reliability objective based on physical differences in the Western Interconnection; specifically, Qualified Paths.

Version 3 proposes to delete the defined term "Qualified Transfer Path" from the NERC Glossary of Terms Used in Reliability Standards and replace it with the more viable term "Qualified Path" as used in the FERC-approved Western Interconnection Unscheduled Flow Mitigation Plan (WIUFMP). The proposed definition is as follows:

"Qualified Path (QP): A transmission element, or group of transmission elements that has qualified for inclusion into the WIUFMP."

**11. Proposed reliability standards should cause no undue negative effect on competition or restriction of the grid.**

As directed by section 215 of the FPA, the Commission itself will give special attention to the effect of a proposed Reliability Standard on competition. The ERO should attempt to develop a proposed Reliability Standard that has no undue negative effect on competition. Among other possible considerations, a proposed Reliability Standard should not unreasonably restrict available transmission capability on the Bulk Power System beyond any restriction necessary for reliability and should not limit use of the Bulk Power System in an unduly preferential manner. It should not create an undue advantage for one competitor over another. Order No. 672 at P 332

The assigned drafting team does not foresee any negative impacts on competition resulting from the changes proposed for this project.

During the development phase of this project, the industry raised no concerns regarding competition or restrictive use of the grid.

**12. The implementation time for the proposed Reliability Standards must be reasonable.**

In considering whether a proposed Reliability Standard is just and reasonable, the Commission will consider also the timetable for implementation of the new requirements, including how the proposal balances any urgency in the need to implement it against the reasonableness of the time allowed for those who must comply to develop the necessary procedures, software, facilities, staffing or other relevant capability. Order No. 672 at P 333

In accordance with the WECC Reliability Standards Development Procedures, an implementation plan for the proposed standard was included with Posting 1 of this project. The Implementation Plan is included as Attachment F of this filing.

The proposed effective date for this project is the first day of the second quarter following applicable regulatory approval.

The project drafting team concluded that the proposed changes: 1) would have no impact on peripheral standards, 2) would add no new burden to the Applicable Entities, and 3) could be implemented earlier than requested without resulting in any negative impact to reliability.

**13. The Reliability Standard development process must be open and fair.**

Further, in considering whether a proposed Reliability Standard meets the legal standard of review, we will entertain comments about whether the ERO implemented its Commission-approved Reliability Standard development process for the development of the proposed Reliability Standard in a proper manner, especially whether the process was open and fair. However, we caution that we will not be sympathetic to arguments by interested parties that choose, for whatever reason, not to participate in the ERO's Reliability Standard development process if it is conducted in good faith in accordance with the procedures approved by the Commission. Order No. 672 at P 334

WECC followed the WECC Reliability Standards Development Procedures (Procedures) approved by FERC in effect at the time of each step in the process.

In accordance with the Procedures, all drafting team meetings are open to the public.

All drafting team meetings were announced via the WECC Standards Email List for the period prescribed in the Procedures. Notice of the meetings was provided to NERC and posted on the WECC Calendar along with meeting minutes.

All meetings were supported by a telephone conference bridge associated with an on-line internet visual capability allowing all participants to see the document(s) as they were being developed. Further, this team held an open-mic Standards Briefing prior to balloting affording the industry an additional opportunity to have its questions addressed.

This project was posted twice for public comment at WECC.

Comments and the associated responses are posted on the WECC Web Site at the WECC-0130 project page on the Submitted and Review Comments accordion.[11] Response to Comments forms were provided with this filing.

In addition to posting under the WECC Procedures, this project was also posted by NERC for 45-days in accordance with NERC's Rules of Procedure and NERC's internal business practices.

**14. Proposed Reliability Standards must balance with other vital public interests.**

Finally, we understand that at times development of a proposed Reliability Standard may require that a particular reliability goal must be balanced against other vital public interests, such as environmental, social, and other goals. We expect the ERO to explain any such balancing in its application for approval of a proposed Reliability Standard. Order No. 672 at P 335

[11] https://www.wecc.biz/Standards/Pages/WECC-0130.aspx

WECC is not aware of any other vital public interests. No such balancing concerns were raised or noted.

**15. Proposed Reliability Standards must consider any other relevant factors.**

In considering whether a proposed Reliability Standard is just and reasonable, [FERC] will consider [several] general factors, as well as other factors that are appropriate for the particular Reliability Standard proposed. Order No. 672 at P 323

WECC is not aware of any other general factors in need of consideration.

# Attachment J
# Drafting Team Roster

## WECC-0130 IRO-006-WECC-3
## Qualified Transfer Path Unscheduled Flow Relief
## Five-year Review

Below please find a biographical snapshot for the members of the WECC-0130 IRO-006-WECC-3, Qualified Transfer Path Unscheduled Flow Relief, Five-year Review Drafting Team.

| Name | Background |
|---|---|
| Susan Millar, Bonneville Power Administration | Ms. Millar is a Senior Policy Advisor for System Operations at the Bonneville Power Administration.<br>Qualifications include:<br>• Senior Policy Advisor to System Operations on regulatory issues and internal and external initiatives affecting reliable operation of the Bulk Electric System (BES);<br>• Transmission Provider Representative to the WECC Market Interface Committee;<br>• Subject Matter Expert on Open Access Transmission (BPA and Pro-forma) Tariff, including Attachment J concerning Procedures for Parallel Flows;<br>• Active participant in Task Force discussions developing Peak Reliability Enhanced Curtailment Calculator (ECC), including Phase 2, transition from webSAS to webIntegrity implementing the Unscheduled Flow Mitigation Plan (UFMP); and Phase 4, regarding the expansion of ECC tool application to multiple elements/facilities in the Western Interconnection greater than the UFMP Qualified Paths; and<br>• Actively monitoring the entry of new Reliability Coordinator candidates in the Western Interconnection. |
| Jim Price, California Independent System Operator | Mr. Price is a Senior Advisor in Market Quality and Renewable Integration at the California Independent System Operator (CAISO).<br>Qualifications include:<br>• Bachelor of Science in Engineering and Applied Science from the California Institute of Technology; |

| | |
|---|---|
| | • Master of Science and a Doctor of Philosophy degree in Civil Engineering from Stanford University;<br>• 19 years of experience at the California Public Utilities Commission;<br>• 18 years at the CAISO in Market Operations, Market & Infrastructure Development, and Market Quality & Renewable Integration;<br>• Member and vice chair of Peak Reliability's Enhanced Curtailment Calculator (ECC) Task Force; and<br>• Former chair of the WECC Seams Issues Subcommittee and the Market and Seams Issues Subcommittee. |
| Gerardo Ugalde, Southwest Power Pool | Mr. Ugalde is a supervisor with the Southwest Power Pool (SPP) where he supervises the calculation of Available Flowgate Capability, Available Transmission Capability, and other related calculations in support of Transmission service and Flowgate capacity. His team works with neighboring systems to create policies determining what constitutes Firm versus Non-Firm, and to better coordinate congestion across the seams. His team also provides technical support to administer the Western Interconnection Unscheduled Flow Mitigation Plan for the Southwest Power Pool.<br>Qualifications include:<br>• Ten years of experience working for the Southwest Power Pool;<br>• Five years of experience in Energy Management System modeling and Network application support;<br>• Three years of experience in markets, primarily supporting congestion management and Security Constrained Economic Dispatch software;<br>• Two years of experience in his current role;<br>• Subject matter expert in evidence production in support of NERC MOD Standards MOD-001-1a, MOD-004-1, MOD-008-1, MOD-029-2a and MOD-030-3; and<br>• Subject matter expert for the Seams group in which he monitors parallel loop flows on neighboring systems, and coordinates congestion management and use tools such as Market-to-Market (M2M) with the Midcontinent Independent System Operator and the IDC Transmission Loading Relief (TLR). |

| | |
|---|---|
| Kathee Downey, PacifiCorp | Ms. Downey is a Transmission Grid Operations Adviser at PacifiCorp.<br>Qualifications include:<br>• Continuing involvement in multiple WECC committees and associated drafting teams relating to WECC Interchange Scheduling and Accounting Sub-Committee (ISAS) and Federal Energy Regulatory Commission (FERC) Order 764;<br>• Current representative on the WECC Operating Committee and ISAS;<br>• Subject matter expert for NERC IRO-006-3, Reliability Coordination, and IRO-006-WECC-2, Qualified Transfer Path Unscheduled Flow Relief; and<br>• Member of the Peak Enhanced Curtailment Calculator Task Force and an end user for the unscheduled flow tool. |
| Sean Erickson, Western Area Power Administration | Mr. Erickson is a Senior Power Operations Specialist at the Western Area Power Administration.<br>Qualifications include:<br>• Two years of experience as a WECC Reliability Coordinator (2009–2011);<br>• Two years of experience as a WECC Reliability Coordination Operations Engineer (2007–2009);<br>• Four years of experience as an Operations Engineer (2011–2015);<br>• Currently serving as the Transmission Alternate on the WECC Operating Committee as well as the WECC Ballot Body representative for both WECC and NERC;<br>• Previous member of the WECC Performance Work Group during the BAL-001 field trial evaluations;<br>• Previous member of the Path Operator Task Force (POTF) (post-September 8, 2011, NERC/FERC findings and mitigation regarding Path Operations) and the POITF–Implementation Team for the Operational adoption of the POTF findings; and<br>• Contributor to retiring TOP-007-WECC-1a, System Operating Limits. |

# Attachment K
# Ballot Pool

## WECC-0130 IRO-006-WECC-3
## Qualified Transfer Path Unscheduled Flow (USF) Relief
## Five-year Review

Ballot Name: **WECC-0130 IRO-006-WECC-2 Qualified Transfer Path Unscheduled Flow (USF) Relief**

Overview: This project is the result of a mandated five-year review per the WECC Reliability Standards Development Procedures. This project clarifies the Purpose statement, updates the document to the current template, replaces "Qualified Transfer Path" with "Qualified Path," and retires several terms from the NERC Glossary of Terms.

| Title | Company | Sector | Vote | Comments | Created By |
|---|---|---|---|---|---|
| WECC-0130 | Arizona Public Service Company | Load-Serving Entities (LSE) | Yes | 0 | Vivian Vo |
| WECC-0130 | Arizona Public Service Company | Transmission Owners | Yes | 0 | Michelle Amarantos |
| WECC-0130 | Arizona Public Service Company | Electric Generators | Yes | 0 | Kelsi Rigby |
| WECC-0130 | Arizona Public Service Company | Electricity Brokers, Aggregators, and Marketers | Yes | 0 | Nicholas Kirby |
| WECC-0130 | Balancing Authority of Northern California | Transmission Owners | Yes | 0 | Joe Tarantino |
| WECC-0130 | Balancing Authority of Northern California | Electricity Brokers, Aggregators, and Marketers | Yes | 0 | Joe Tarantino |

| Title | Company | Sector | Vote | Comments | Created By |
|---|---|---|---|---|---|
| WECC-0130 | Bonneville Power Administration | Electricity Brokers, Aggregators, and Marketers | Yes | 0 | Andrew Meyers |
| WECC-0130 | Bonneville Power Administration | Transmission Owners | Yes | 0 | Kammy Rogers-Holliday |
| WECC-0130 | Bonneville Power Administration | Load-Serving Entities (LSE) | Yes | 0 | Rebecca Berdahl |
| WECC-0130 | British Columbia Hydro & Power Authority | Electric Generators | Yes | 0 | Adrian Andreoiu |
| WECC-0130 | British Columbia Hydro & Power Authority | Load-Serving Entities (LSE) | Yes | 0 | Adrian Andreoiu |
| WECC-0130 | British Columbia Hydro & Power Authority | Transmission Owners | Yes | 0 | Adrian Andreoiu |
| WECC-0130 | California Independent System Operator | Regional Transmission Organizations (RTO) and Independent System Operators (ISO) | Yes | 0 | Richard Vine |
| WECC-0130 | Idaho Power Company | Electric Generators | Yes | 0 | Laura Nelson |
| WECC-0130 | Idaho Power Company | Transmission Owners | Yes | 0 | Laura Nelson |
| WECC-0130 | Idaho Power Company | Load-Serving Entities (LSE) | Yes | 0 | Laura Nelson |

| Title | Company | Sector | Vote | Comments | Created By |
|---|---|---|---|---|---|
| WECC-0130 | Los Angeles Department of Water and Power | Load-Serving Entities (LSE) | 0 | 0 | Pjoy Chua |
| WECC-0130 | Los Angeles Department of Water and Power | Electricity Brokers, Aggregators, and Marketers | 0 | 0 | Pjoy Chua |
| WECC-0130 | Los Angeles Department of Water and Power | Transmission Owners | 0 | 0 | Pjoy Chua |
| WECC-0130 | Los Angeles Department of Water and Power | Electric Generators | 0 | 0 | Pjoy Chua |
| WECC-0130 | Platte River Power Authority | Load-Serving Entities (LSE) | Yes | 0 | Jeff Landis |
| WECC-0130 | Platte River Power Authority | Electricity Brokers, Aggregators, and Marketers | Yes | 0 | Sabrina Martz |
| WECC-0130 | Platte River Power Authority | Transmission Owners | Yes | 0 | Matthew Thompson |
| WECC-0130 | Platte River Power Authority | Electric Generators | Yes | 0 | Tyson Archie |
| WECC-0130 | Public Service Company of Colorado (Xcel Energy) | Electric Generators | Yes | 0 | Gerry Huitt |

| Title | Company | Sector | Vote | Comments | Created By |
|---|---|---|---|---|---|
| WECC-0130 | Public Service Company of Colorado (Xcel Energy) | Electricity Brokers, Aggregators, and Marketers | 0 | 0 | Carrie Simpson |
| WECC-0130 | Public Service Company of New Mexico | Electric Generators | Yes | 0 | Laurie Williams |
| WECC-0130 | Public Service Company of New Mexico | Transmission Owners | Yes | 0 | Laurie Williams |
| WECC-0130 | Public Service Company of New Mexico | Load-Serving Entities (LSE) | Yes | 0 | Laurie Williams |
| WECC-0130 | Public Service Company of New Mexico | Electricity Brokers, Aggregators, and Marketers | Yes | 0 | Laurie Williams |
| WECC-0130 | Sacramento Municipal Utility District | Electric Generators | Yes | 0 | Joe Tarantino |
| WECC-0130 | Sacramento Municipal Utility District | Transmission Dependent Utilities (TDU) | Yes | 0 | Joe Tarantino |
| WECC-0130 | Sacramento Municipal Utility District | Transmission Owners | Yes | 0 | Joe Tarantino |
| WECC-0130 | Sacramento Municipal Utility District | Load-Serving Entities (LSE) | Yes | 0 | Joe Tarantino |
| WECC-0130 | Sacramento Municipal Utility District | Electricity Brokers, Aggregators, and Marketers | Yes | 0 | Joe Tarantino |

| Title | Company | Sector | Vote | Comments | Created By |
|---|---|---|---|---|---|
| WECC-0130 | Salt River Project | Electricity Brokers, Aggregators, and Marketers | Yes | 0 | Bobby Olsen |
| WECC-0130 | Salt River Project | Load-Serving Entities (LSE) | Yes | 0 | Robert Kondziolka |
| WECC-0130 | Salt River Project | Electric Generators | Yes | 0 | Kevin Nielsen |
| WECC-0130 | Seattle City Light | Transmission Dependent Utilities (TDU) | Yes | 0 | Hao Li |
| WECC-0130 | Seattle City Light | Transmission Owners | 0 | 0 | Tuan Tran |
| WECC-0130 | Seattle City Light | Load-Serving Entities (LSE) | 0 | 0 | Tuan Tran |
| WECC-0130 | Seattle City Light | Electricity Brokers, Aggregators, and Marketers | 0 | 0 | Charles Freeman |
| WECC-0130 | Tri-State Generation & Transmission - Reliability | Load-Serving Entities (LSE) | 0 | 0 | Janelle Gill |
| WECC-0130 | Tucson Electric Power | Electric Generators | Yes | 0 | John Tolo |
| WECC-0130 | Tucson Electric Power | Transmission Owners | Yes | 0 | John Tolo |
| WECC-0130 | Tucson Electric Power | Load-Serving Entities (LSE) | Yes | 0 | John Tolo |
| WECC-0130 | US Bureau of Reclamation | Transmission Owners | 0 | 0 | Wendy Center |
| WECC-0130 | US Bureau of Reclamation | Electric Generators | 0 | 0 | Wendy Center |

| Title | Company | Sector | Vote | Comments | Created By |
|---|---|---|---|---|---|
| WECC-0130 | Western Area Power Administration | Transmission Owners | Yes | 0 | sean er |

# Attachment L
# Final Ballot Results

## WECC-0130 IRO-006-WECC-3
## Qualified Transfer Path Unscheduled Flow (USF) Relief
## Five-year Review

Ballot Name: **WECC-0130 IRO-006-WECC-3 Qualified Transfer Path Unscheduled Flow (USF) Relief**

Overview: This project is the result of a mandated five-year review per the WECC Reliability Standards Development Procedures. This project clarifies the Purpose statement, updates the document to the current template, replaces "Qualified Transfer Path" with "Qualified Path," and retires several terms from the NERC Glossary of Terms.

| | | | |
|---|---|---|---|
| Ballot Pool Open: | 09/27/2018 | Ballot Opened: | 10/19/2018 |
| Ballot Pool Closed: | 10/11/2018 | Ballot Closed: | 11/05/2018 |
| Total Ballot Pool: | 49 | Total Votes: | 38 |
| Quorum: | 77.6% | Weighted Votes: | 100% |

Ballot Results: **Pass**

| Voting Sectors | Total In Ballot Pool | In Pool Affiliates Excluded | Votes Non-Abstain | Sector Weight | Yes Votes | Weighted Segment Vote | No Votes | Abstain | Total Votes for Quorum | Didn't Vote |
|---|---|---|---|---|---|---|---|---|---|---|
| Transmission Owners | 13 | | 10 | 1 | 10 | 100.0% | 0 | 0 | 10 | 3 |
| Reg. Trans. Org. and Ind. Sys. Op. | 1 | | 1 | 0.1 | 1 | 10.0% | 0 | 0 | 1 | 0 |
| Load-Serving Entities (LSEs) | 12 | | 9 | 0.9 | 9 | 90.0% | 0 | 0 | 9 | 3 |
| Transmission Dependent Utilities (TDUs) | 2 | | 2 | 0.2 | 2 | 20.0% | 0 | 0 | 2 | 0 |
| Electric Gen. | 11 | | 9 | 0.9 | 9 | 90.0% | 0 | 0 | 9 | 2 |
| Elect. Brokers, Aggregators, and Marketers | 10 | | 7 | 0.7 | 7 | 70.0% | 0 | 0 | 7 | 3 |
| Large Electricity End Users | 0 | | 0 | 0 | 0 | 0.0% | 0 | 0 | 0 | 0 |
| Small Electricity Users | 0 | | 0 | 0 | 0 | 0.0% | 0 | 0 | 0 | 0 |
| Fed/State/Prov. Reg./Other Gov. | 0 | | 0 | 0 | 0 | 0.0% | 0 | 0 | 0 | 0 |
| Regional Entities | 0 | | 0 | 0 | 0 | 0.0% | 0 | 0 | 0 | 0 |
| Totals | 49 | 0 | 38 | 3.8 | 38 | **100.0%** | 0 | 0 | 38 | 11 |

WECC
WESTERN ELECTRICITY COORDINATING COUNCIL
155 North 400 West, Suite 200
Salt Lake City, Utah 84103-1114

# Attachment M
# Minority Issues

## WECC-0130 IRO-006-WECC-3
## Qualified Transfer Path Unscheduled Flow (USF) Relief
## Five-year Review

Following a ballot period from October 19, 2018, through November 5, 2018, the WECC Ballot Pool approved the requested changes to WECC-0130 IRO-006-WECC-3, Qualified Transfer Path Unscheduled Flow (USF) Relief.

This project passed with a 100 percent affirmative weighted approval.

There were no votes in opposition and no minority positions to address.

WECC

WESTERN ELECTRICITY COORDINATING COUNCIL
155 North 400 West, Suite 200
Salt Lake City, Utah 84103-1114

# Attachment N1
# Response to Comments

# WECC-0130 IRO-006-WECC-3
# Qualified Transfer Path Unscheduled Flow (USF) Relief
# Five-year Review

**Posting 1**

The WECC-0130, IRO-006-WECC-3 Qualified Transfer Path Unscheduled Flow Relief Drafting Team (DT) thanks everyone who submitted comments on the proposed project.

**Notice**

On May 15, 2018, WECC dispatched notice to the WECC Standards Email List that this project was posted for comment from May 22 through June 22, 2018.

The DT asked stakeholders to provide feedback on the project through a standardized electronic template. WECC received comments from three entities as shown in the following table.

**Location of Comments**

All comments received on the project can be viewed in their original form on the WECC-0130 project page under the "Submit and Review Comments" accordion.

**Changes in Response to Comment**

The following two highlighted phrases were added to Requirement R1 and M1.

> **R1.** Each Reliability Coordinator receiving a request **for Curtailments** for unscheduled flow transmission relief on a Qualified Path **within its Reliability Coordinator Area** shall either approve or deny that request within five minutes of receipt. *[Violation Risk Factor: Medium] [Time Horizon: Real-time Operations]*

The word "on" was inserted into the predicate of the Violation Severity Levels table, Severe VSL column resulting in the following:

"…unscheduled flow transmission relief **on** a Qualified Path, greater than five minutes after receipt that request." (Emphasis added.)

**Proposed Glossary Changes**

In addition to updating the standard, the DT is proposing changes to the NERC Glossary of Terms Used in Reliability Standards (NERC Glossary).

The WECC-0130 Standard Authorization Request (SAR) calls for IRO-006-WECC-2 to be reviewed and updated. IRO-006-WECC-2, Requirement R1 uses the defined terms Qualified Transfer Path (QTP) and Relief Requirement (RR). RR is also used in Requirement R2.

As approved, QTP erroneously states the WECC Operating Committee designates which path is qualified for WECC unscheduled flow mitigation. RR not only incorporates the erroneous QTP by reference, it also incorporates Contributing Schedules that also incorporates the erroneous QTP, creating a flawed circular logic.

A review of the NERC Glossary shows the following terms are impacted by the erroneous incorporation by reference of either the QTP or other documents that no longer exist:

- Contributing Schedule
- Qualified Controllable Device
- Qualified Transfer Path
- Relief Requirement
- Transfer Distribution Factor

Because changes to these terms may have unintended impacts on the Western Interconnection Unscheduled Flow Mitigation Plan (WIUFMP), further discussions will take place to determine the best course of action.

**Proposed Change to NERC Glossary: Qualified Path**

At a minimum, the DT proposes retirement of the currently approved definition for QTP and replacement with the currently approved definition from the WIUFMP that states:

"Qualified Path (QP): A transmission element, or group of transmission elements that has qualified for inclusion into the WIUFMP."

The drafting team recognizes that replacement of QTP with QP may raise concerns about due process because of the incorporation by reference. Comments on the matter are solicited.

To eliminate the due process concern and any concerns regarding incorporation by reference of the WIUFMP, the DT specifically seeks proposed language to meet the needs of requirements R1 and R2, without referring to a defined term, should such an approach be possible.

**Minority View**

There was no minority view.

**Effective Date and Implementation Plan**

The WECC Reliability Standards Development Procedures (Procedures) require an implementation plan to be included in at least one iterative posting of projects developed under those Procedures. An Implementation Plan was posted with Posting 1. No comments were received impacting the Implementation Plan.

The proposed Effective Date is the first day of the second quarter following applicable regulatory approval. The DT foresees no concerns with early compliance.

**Action Plan**

On July 12, 2018, the WECC-0130 Qualified Transfer Path Unscheduled Flow Relief, Five-year Review Drafting Team (DT) agreed by majority vote to post Posting 2 of the project for a 30-day comment period.

The posting period will open July 18, 2018, and close August 20, 2018. The DT will meet on September 6, 2018, from 2:00 p.m. to 4:00 p.m. (MT) and September 13, 2018, from 10:00 a.m. to 12:00 p.m. (MT), as needed, to discuss disposition of the project.

Comments can be submitted using the green survey buttons located on the Submit and Review Comments accordion of the WECC-0130 project page.

**Contacts and Appeals**

If you feel your comment has been omitted or overlooked, please contact W. Shannon Black, WECC Consultant. In addition, the WECC Reliability Standards Appeals Process can be found in the Reliability Standards Development Procedures.

**WECC Standards Comment Table**

| Commenter | | Organization |
|---|---|---|
| **1** | Todd Komaromy | Arizona Public Service Company |
| **2** | Jeremy West | Peak Reliability |
| **3** | Jim Price[1] | California Independent System Operator |

**Index to Questions, Comments, and Responses**

**Question**

1. The Drafting Team welcomes comments on all aspects of the document.

[1] The comments of the CAISO were not submitted via the standardized electronic portal. Rather, they were submitted directly to WECC staff by Mr. Jim Price of the CAISO, via email on June 22, 2018. Mr. Price is a WECC-0130 DT member and was unavailable to attend the June 28, 2018, meeting when comments were addressed.

## 1. Response Summary

| Summary Consideration: | See summary in the preamble of this document. |
|---|---|
| **Commenter / Comment** | **Response** |
| AZPS | AZPS suggests removing the option in R2 to "implement alternative actions". Due to the sophistication of the solutions generated by the webSAS tool and that those solutions now comport with the FERC transmission priority rules, the ability for an entity to take equal and adequate alternative actions no longer seems to be a feasible option. |
| Thank you for your comments.<br>**Background for Responses**<br>As background for each of the following responses, the Western Interconnection Unscheduled Flow Mitigation Plan (WIUFMP) is a FERC-approved document with an Effective Date of January 1, 2016. The Relief Requirements called for in IRO-006-WECC-2, Requirements R1 and R2 were resident in IRO-006-WECC-1, Attachment 1, WECC Unscheduled Flow Mitigation Summary of Actions; however, that attachment was retired with version 1.<br>**Implement Alternative Actions**<br>It is the default expectation that entities would follow the prescribed action, but “alternate actions” are spelled out in the WIUFMP document, and to strike them would contradict the FERC approved procedure. (See WIUFMP, page 4. “alternate method”) | |
| Peak Reliability | Peak requests the WECC-0130 Drafting Team consider how the IRO-006 requirements support the potential industry changes with multiple RCs in the Western Interconnection. This evaluation should consider which RCs evaluate a UFMP request and what RC approvals are required (the RC with the Qualified Path in their footprint or more). |
| | |

| Summary Consideration: | See summary in the preamble of this document. | | |
|---|---|---|---|
| Commenter / Comment | | | Response |
| **Multiple RCs**<br><br>Please see response to CAISO that follows.<br><br>The DT believes that IRO-014-3, Coordination Among Reliability Coordinators, Requirements R1 and R2, currently contains sufficient language to require coordination of multiple RCs. The DT believes that RC coordination activities are best covered in the WIUFMP and extrinsic documents without overly restricting remedial actions within a standard.<br><br>An example of extrinsic coordination is found in the Western Interconnection Unscheduled Flow Mitigation Plan, (WIUFMP), at page 4, stating, "Upon request from a Transmission Operator to their Reliability Coordinator (RC) for WIUFMP mitigation of flows on a Qualified Path, the applicable RC *will review the request for reliability impacts, coordinate with other RCs as necessary,* and either approve or disapprove the request for Step 4 by thirty minutes after the hour for actions related to the next hour. (Emphasis added.) | | | |
| California Independent System Operator | | | In general, we support the new R1 for IRO-006, which states: "R1. Each Reliability Coordinator receiving a request for unscheduled flow transmission relief on a Qualified Path, shall either approve or deny that request within five minutes of receipt. [Violation Risk Factor: Medium] [Time Horizon: Real-time Operations]". A concern is that the current R1 is very specific in being applicable to requests "… that will result in the calculation of a Relief Requirement", i.e., it applies to requests for curtailment at USF step 4 and beyond. The new R1 eliminates that qualifier, so it essentially expands the applicability to USF steps 1, 2, and 3. Requests for curtailment at USF step 4 understandably have urgent timing that makes R1's 5-minute requirement for RC approval an appropriate requirement. Requests for USF steps 1, 2, and 3 should allow more time for the RC to determine the appropriate course of action, and R1's 5-minute requirement for RC |

| Summary Consideration: | See summary in the preamble of this document. |
|---|---|
| Commenter / Comment | Response |
| | approval is not the appropriate requirement. Further, demonstrating compliance regarding requests for schedule curtailments is straight-forward, as the ECC and webSAS tools have logged the time when requests are received and when the RC approves curtailments. The same logging does not occur for USF steps 1, 2, and 3, so it would be less clear how an RC can prove compliance in all instances. Thus, a phrase like the qualifier "... that will result in schedule curtailment" should be retained. |

Thank you for your comment.

The following highlighted phrases have been added to the existing Requirement R1 and M1.

The DT believes this adds clarity in implementing unscheduled flow mitigation without incorporating by reference any extrinsic documents, without being overly prescriptive, and while allowing the applicable entity to timely address the need (i.e. the five-minute reference contained in Step 4 of the plan).

The addition of the second phrase "within its Reliability Coordinator Area" further clarifies which Reliability Coordinator (RC) is to act in the event multiple RCs are active in the Western Interconnection.

**R1.** Each Reliability Coordinator receiving a request **for Curtailments** for unscheduled flow transmission relief on a Qualified Path **within its Reliability Coordinator Area** shall either approve or deny that request within five minutes of receipt. *[Violation Risk Factor: Medium] [Time Horizon: Real-time Operations]*

# Attachment N2
# Response to Comments

# WECC-0130 IRO-006-WECC-3
# Qualified Transfer Path Unscheduled Flow (USF) Relief
# Five-year Review

## Posting 2

The WECC-0130, IRO-006-WECC-2 Qualified Transfer Path Unscheduled Flow Relief Drafting Team (DT) thanks everyone who submitted comments on the proposed project.

**Notice**

On July 13, 2018, WECC dispatched notice to the WECC Standards Email List that this project was posted for comment from July 18 through August 20, 2018.

The DT asked stakeholders to provide feedback on the project through a standardized electronic template. WECC received comments from one entity as shown in the following table.

**Location of Comments**

All comments received on the project can be viewed in their original form on the WECC-0130 project page under the Submit and Review Comments accordion.

**Changes in Response to Comment**

No changes were made to the standard; however, proposed changes to the WECC Regional Definitions (Regional Glossary) section of the NERC Glossary of Terms Used in Reliability Standards (NERC Glossary) were accepted as follows.

**Modification of Qualified Transfer Path**

Qualified Transfer Path (QTP) should be deleted and replaced with the Qualified Path definition as used in the Western Interconnection Unscheduled Flow Mitigation Plan (WIUFMP).

**Deletion of Contributing Schedule**

If the project is approved as proposed in Posting 2, Contributing Schedule (CS) should be deleted from the Regional Glossary because it will no longer be used in any WECC regional standards.

**Deletion of Qualified Controllable Device**[1]

Qualified Controllable Device (QCD) definitions vary from the Regional Glossary to the WIUFMP. Because the Regional Glossary definition is not used in any WECC regional standards; and, because the WIUFMP has its own FERC-approved definition, QCD should be deleted from the Regional Glossary.

**Deletion of Relief Requirement**

If the project is approved as proposed in Posting 2, Relief Requirement (RR) should be deleted from the Regional Glossary because it will no longer be used in any WECC regional standards.

**Deletion of Transfer Distribution Factor**

Transfer Distribution Factor (TDF) is defined differently in the NERC Glossary than in the Regional Glossary. TDF in the Regional Glossary incorporates by reference an extrinsic document that is no longer valid, QTP that is proposed for modification, and CS that is proposed for deletion. In addition to the definitional inaccuracy, if the project is approved as proposed in Posting 2, TDF should be deleted from the Regional Glossary because it will no longer be used in any WECC regional standards.

Deletion of the term from the Regional Glossary will have no impact on the same term in the NERC Glossary.

**Deletion of Qualified Transfer Path Curtailment Event**

Qualified Transfer Path Curtailment Event (QTPCE) incorporates by reference an extrinsic document that is no longer valid. In addition to the definitional inaccuracy, if the project is approved as proposed in Posting 2, QTPCE should be deleted from the Regional Glossary because it will no longer be used in any WECC regional standards.

**Minority View**

There was no minority view.

[1] "The WIUFMP process first uses the coordinated operation of Qualified Controllable Devices to change flows on the Qualified Paths. When more relief is required, curtailments may also be issued. Upon approval of a Step 4 request by the RC, the mitigation software will start a prescription of curtailments that will result in the relief requested by the Transmission Operator of the Qualified Path. Balancing Authorities (BA) that receive WIUFMP curtailment prescriptions may act to approve the curtailments, or may provide equivalent relief via an alternate method." Plan, page 3.

**Effective Date and Implementation Plan**

**The WECC Reliability Standards Development Procedures (Procedures) require an implementation plan to be included in at least one iterative posting of projects developed under those Procedures. An Implementation Plan was posted with Posting 1. Retirement of QTPCE will be added to the Implementation Plan.**

The proposed Effective Date is the first day of the second quarter following applicable regulatory approval. The DT foresees no concerns with early compliance.

**Action Plan**

On September 6, 2018, the WECC-0130 Qualified Transfer Path Unscheduled Flow Relief, Five-year Review Drafting Team (DT) agreed by majority vote to forward this project to the WECC Standards Committee with a request for ballot.

The WSC's next planned meeting is on September 20, 2018.

**Contacts and Appeals**

If you feel your comment has been omitted or overlooked, please contact W. Shannon Black, WECC Consultant. In addition, the WECC Reliability Standards Appeals Process can be found in the Reliability Standards Development Procedures.

**WECC Standards Comment Table**

| Commenter | | Organization |
|---|---|---|
| 1 | W. Shannon Black | WECC |

**Question and Response Summary**

The Drafting Team welcomes comments on all aspects of the document.

| Summary Consideration: | See summary in the preamble of this document. | | |
|---|---|---|---|
| **Commenter / Comment** | | | **Response** |
| WECC | | | WECC recommends:<br><br>Modification of the term Qualified Transfer Path.<br><br>Deletion of: 1) Contributing Schedule, 2) Qualified Controllable Device, 3) Relief Requirement, 4) Transfer Distribution Factor, and 5) Qualified Transfer Path Curtailment Event.<br><br>Because the software platform will not accommodate the full comments provided by WECC, WECC's comments were provided to each drafting team member via email as well as posted on the WECC-0130 Project Page on the Submit and Review Comments accordion. |
| The drafting team reviewed the full comments provided by WECC via email and as posted on the WECC-0130 Project Page. The drafting team agreed to adopt WECC's request for changes to the WECC Regional Definitions section of the NERC Glossary of Terms Used in Reliability Standards. | | | |

NERC
NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION

# Regional Reliability Standards Announcement

## Western Electricity Coordinating Council
## IRO-006-WECC-3

**Comment Period Open through January 28, 2019**

**Now Available**

The Western Electricity Coordinating Council (WECC) requested that NERC post Regional Reliability Standard **IRO-006-WECC-3 - Qualified Path Unscheduled Flow (USF) Relief** for industry review and comment in accordance with the NERC Rules of Procedure.

### Background

WECC conducted a mandatory five-year review of Regional Reliability Standard IRO-006-WECC-2. The WECC drafting team made the following changes:

- Clarified the purpose statement;
- Replaced defined term "Qualified Transfer Path" with "Qualified Path" as included in the Western Interconnection Unscheduled Flow Mitigation Plan, approved by the Federal Energy Regulatory Commission.
- Retired the following terms from the NERC Glossary of Terms Used in Reliability Standards because they are either no longer accurate or are no longer used in any standards:
    1. Qualified Transfer Path,
    2. Contributing Schedule,
    3. Qualified Controllable Device,
    4. Relief Requirement,
    5. Transfer Distribution Factor, and
    6. Qualified Transfer Path Curtailment Event.
- Conformed the standard to current drafting conventions and template.

### Commenting

Use the Standards Balloting and Commenting System (SBS) to submit comments. If you experience any difficulties using the electronic form, contact Nasheema Santos. The form must be submitted by **8 p.m. Eastern, Monday, January 28, 2019.** An unofficial Word version of the comment form is posted on the Regional Reliability Standards Under Development page.

**Regional Reliability Standards Development Process**

Section 300 of NERC's Rules of Procedures of the Electric Reliability Organization governs the regional reliability standards development process. Although the technical aspects of this Regional Reliability Standard have been vetted through WECC's Regional Standards development process, the final approval process for a Regional Reliability Standard requires NERC publicly to notice and request comment on the criteria outlined in the unofficial comment form.

Documents and information about this project are available on the WECC's Standards Under Development page.

For more information or assistance, contact Manager of Standards Information, Chris Larson (via email) or at (404) 446-9708.

North American Electric Reliability Corporation
3353 Peachtree Rd, NE
Suite 600, North Tower
Atlanta, GA 30326
404-446-2560 | www.nerc.com

## A. Introduction

1. **Title:** Qualified Path Unscheduled Flow (USF) Relief

2. **Number:** IRO-006-WECC-3

3. **Purpose:** To mitigate flows on Qualified Paths to reliable levels during Real-time operations.

4. **Applicability**

   **4.1.** Reliability Coordinator

   **4.2** Balancing Authority

5. **Effective Date:** The first day of the second quarter following applicable regulatory approval. See Implementation Plan.

## B. Requirements and Measures

**R1.** Each Reliability Coordinator receiving a request for Curtailments for unscheduled flow transmission relief on a Qualified Path within its Reliability Coordinator Area shall either approve or deny that request within five minutes of receipt. *[Violation Risk Factor: Medium] [Time Horizon: Real-time Operations]*

**M1.** Each Reliability Coordinator receiving a request for Curtailments for unscheduled flow transmission relief on a Qualified Path within its Reliability Coordinator Area, per requirement R1, will have evidence that it approved or denied that request within five minutes of receipt. Evidence may include, but is not limited to documentation of either an active or passive approval.

**R2.** Each Balancing Authority receiving an approved request for unscheduled flow transmission relief on a Qualified Path per Requirement R1, shall perform any of the following actions to meet that request: *[Violation Risk Factor: Medium] [Time Horizon: Real-time Operations]*

- Approve curtailment requests to the schedules as submitted
- Implement alternative actions

**M2.** Each Balancing Authority receiving an approved request for unscheduled flow transmission relief on a Qualified Path per Requirement R1, will have

evidence that it performed the actions allowed in Requirement R2, to meet that request.

## C. Compliance

### 1. Compliance Monitoring Process

#### 1.1. Compliance Enforcement Authority:

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

#### 1.2. Evidence Retention:

The following evidence retention period(s) identify the period of time an entity is required to retain specific evidence to demonstrate compliance. For instances where the evidence retention period specified below is shorter than the time since the last audit, the Compliance Enforcement Authority may ask an entity to provide other evidence to show that it was compliant for the full time period since the last audit.

The applicable entity 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 and each Balancing Authority shall keep data or evidence to show compliance with Requirements R1 and R2 for three calendar years or for the duration of any Compliance Enforcement Authority investigation, whichever is longer.
- If the Reliability Coordinator or Balancing Authority is found noncompliant, it shall keep information related to the noncompliance until found compliant or for the duration specified above, whichever is longer.

#### 1.3. Compliance Monitoring and Enforcement Program

As defined in the NERC Rules of Procedure, "Compliance Monitoring and Enforcement Program" 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.

## Violation Severity Levels

| | Time Horizon | VRF | Violation Severity Levels | | | |
|---|---|---|---|---|---|---|
| | | | Lower VSL | Moderate VSL | High VSL | Severe VSL |
| **R1** | Real-time Operations | Medium | Not Applicable | Not Applicable | Not Applicable | There shall be a Severe level of noncompliance if there is one instance during a calendar month in which the Reliability Coordinator approved (actively or passively) or denied a request for unscheduled flow transmission relief on a Qualified Path greater than five minutes after receipt that request. |
| **R2** | Real-time Operations | Medium | There shall be a Lower Level of noncompliance if there is less than 100% relief requirement provided but greater than or equal to 90% relief requirement provided or the relief requirement was less | There shall be a Moderate Level of noncompliance if there is less than 90% relief requirement provided but greater than or equal to 75% relief requirement provided. | There shall be a High Level of noncompliance if there is less than 75% relief requirement provided but greater than or equal to 60% relief requirement provided. | There shall be a Severe Level of noncompliance if there is less than 60% relief requirement provided. |

| | Time Horizon | VRF | Violation Severity Levels | | | |
|---|---|---|---|---|---|---|
| | | | Lower VSL | Moderate VSL | High VSL | Severe VSL |
| | | | than 5 MW and was not fully provided. | | | |

## D. Regional Variances

None.

## E. Associated Documents

Western Interconnection Unscheduled Flow Mitigation Plan (WIUFMP).

## Version History

| Version | Date | Action | Change Tracking |
|---|---|---|---|
| 1 | April 16, 2008 | Permanent Replacement Standard for IRO-STD-006-0 | |
| 1 | February 10, 2009 | Adopted by NERC Board of Trustees | |
| 1 | March 17, 2011 | FERC Order 746 issued by FERC approving IRO-006-WECC-1 (FERC approval effective on May 24, 2011) | |
| 1 | May 2, 2012 | Updated the requirements to R1. and R2. instead of R.1. and R1.2. | |
| 1 | July 1, 2011 | Effective Date | No Change |
| 2 | February 7, 2013 | Adopted by NERC Board of Trustees | |
| 2 | May 13, 2014 | FERC letter order issued approving IRO-006-WECC-2 (effective July 1, 2014). | |
| 3 | TBD | | Five-year review. Defined term "Qualified Transfer Path" changed to "Qualified Path" as included in the Western Interconnection Unscheduled Flow Mitigation Plan, as approved by FERC. The following defined terms were retired: 1) Qualified Transfer Path, 2) Contributing Schedule, 3) Qualified Controllable Device, 4) Relief Requirement, 5) Transfer Distribution Factor, and 6) Qualified Transfer Path Curtailment Event. |

## A. ~~A.~~ Introduction

1. **Title:** Qualified ~~Transfer~~ Path Unscheduled Flow (USF) Relief

2. **Number:** IRO-006-WECC-~~2~~3

3. **Purpose:** ~~Mitigation of transmission overloads due to unscheduled flow~~To mitigate flows on Qualified ~~Transfer~~ Paths~~.~~ to reliable levels during real-time operations

4. **Applicability**

   **4.1.** ~~Balancing Authority~~

   ~~4.2~~ Reliability Coordinator

   **4.2** Balancing Authority

5. **Effective Date:** ~~On the latter of the~~The first day of the ~~first~~second quarter ~~at least 45 days after Regulatory approval, or upon complete implementation of~~ following applicable ~~webSAS changes and FERC approval of this standard and the revised Unscheduled Flow Mitigation~~regulatory approval. See Implementation Plan ~~Documents.~~.

## B. ~~B.~~ Requirements and Measures

**R1.** Each Reliability Coordinator receiving a request for Curtailments for unscheduled flow transmission relief on a Qualified Path within its Reliability Coordinator Area shall either approve or deny ~~a~~that request within five minutes of ~~receiving the request for unscheduled flow transmission relief from the Transmission Operator of a Qualified Transfer Path that will result in the calculation of a Relief Requirement.~~receipt. *[Violation Risk Factor: Medium] [Time Horizon: Real-time Operations]*

**M1.** Each Reliability Coordinator receiving a request for Curtailments for unscheduled flow transmission relief on a Qualified Path within its Reliability Coordinator Area, per requirement R1, will have evidence that it approved or denied that request within five minutes of receipt. Evidence may include, but is not limited to documentation of either an active or passive approval.

**R2.** Each Balancing Authority receiving an approved request for unscheduled flow transmission relief on a Qualified Path per Requirement R1, shall perform any ~~combination~~ of the following actions ~~meeting the Relief Requirement upon receiving a request for relief as described in Requirement R1~~to meet that request: *[Violation Risk Factor: Medium] [Time Horizon: Real-time Operations]*

- Approve curtailment requests to the schedules as submitted
- Implement alternative actions

## ~~C. Measures~~

~~**M1.** The Reliability Coordinator shall~~ **M2.** Each Balancing Authority receiving an approved request for unscheduled flow transmission relief on a Qualified Path per Requirement R1, will have evidence that it ~~approved or denied~~performed the ~~request within five minutes of receiving a request for relief,~~actions allowed in ~~accordance with Requirement R1. Evidence may include, but is not limited to, documentation of either an active or passive approval.~~

~~Each Balancing Authority shall have evidence that it provided the Relief~~ Requirement ~~through Contributing Schedules curtailments, alternative actions, or a combination that collectively meets the Relief Requirement as directed in Requirement R.2.~~R2, to meet that request.

## C. ~~D.~~ Compliance

### 1. Compliance Monitoring Process~~:~~

#### 1.1. Compliance Enforcement Authority:

- ~~Regional Entity~~
- ~~If the Responsible Entity works for the Regional Entity, then the Regional Entity will establish an agreement with the ERO or another entity approved by the ERO and FERC (i.e., another Regional Entity) to be responsible for compliance enforcement.~~

~~If the Responsible Entity is also a Regional Entity, the ERO or a Regional Entity approved by the ERO and FERC or other applicable governmental authorities shall serve as the~~ As defined in the NERC Rules of Procedure, "Compliance Enforcement Authority~~.~~" means NERC or the Regional Entity in their respective roles of monitoring and enforcing compliance with the NERC Reliability Standards.

#### 1.2. Evidence Retention:

The following evidence retention ~~periods~~period(s) identify the period of time an entity is required to retain specific evidence to demonstrate compliance. For instances where the evidence retention period specified below is shorter than the time since the last audit, the Compliance Enforcement Authority may ask an entity to provide other evidence to show that it was ~~complaint~~compliant for the full ~~-~~-time period since the last audit.

~~Each Balancing Authority and Reliability Coordinator~~The applicable entity 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.

- ~~The Balancing Authority and~~ Each Reliability Coordinator and each Balancing Authority shall ~~retain~~keep data or evidence to show compliance with Requirements R1 and R2, for three calendar years or for the duration of any Compliance Enforcement Authority investigation~~;~~, whichever is longer.
- If ~~a Balancing Authority or~~ the Reliability Coordinator or Balancing Authority is found non-compliant, it shall keep information related to the non-compliance until found compliant or for the duration specified above, whichever is longer.

## 1.3. Compliance Monitoring and Enforcement Program

As defined in the NERC Rules of Procedure, "Compliance Monitoring and Enforcement Program" 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.

## Violation Severity Levels

| | Time Horizon | VRF | Violation Severity Levels | | | |
|---|---|---|---|---|---|---|
| | | | Lower VSL | Moderate VSL | High VSL | Severe VSL |

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

**~~1.3. Compliance Monitoring and Assessment Processes:~~**

- ~~Compliance Audit~~
- ~~Self-Certification~~
- ~~Spot Checking~~
- ~~Compliance Investigation~~
- ~~Self-Reporting~~
- ~~Complaint~~

**~~1.4. Additional Compliance Information:~~**

~~Compliance shall be determined by a single event, per path, per calendar month (at a minimum) provided at least one event occurs in that month.~~

| | | | | | | |
|---|---|---|---|---|---|---|
| ~~R1~~ | Real Time Operations | Medium | Not Applicable | Not Applicable | Not Applicable | There shall be a Severe level of non-compliance if there is one instance during a calendar month in which the |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | | | | | Reliability Coordinator approved (actively or passively) or denied a request for unscheduled flow transmission relief on a Qualified Path, greater than five minutes after receipt that request. |
| **R2** | Real Time Operations | Medium | There shall be a Lower Level of non-compliance if there is less than 100% relief requirement provided but greater than or equal to 90% relief requirement provided or the relief requirement was less than 5 MW and was not fully provided. | There shall be a Moderate Level of non-compliance if there is less than 90% relief requirement provided but greater than or equal to 75% relief requirement provided. | There shall be a High Level of non-compliance if there is less than 75% relief requirement provided but greater than or equal to 60% relief requirement provided. | There shall be a Severe Level of non-compliance if there is less than 60% relief requirement provided. |

## D. Regional Variances

None.

## E. Associated Documents

Western Interconnection Unscheduled Flow Mitigation Plan, (WIUFMP)

## Version History

| Version | Date | Action | Change Tracking |
|---|---|---|---|
| 1 | April 16, 2008 | Permanent Replacement Standard for IRO-STD-006-0 | |
| 1 | February 10, 2009 | Adopted by NERC Board of Trustees | |
| 1 | March 17, 2011 | FERC Order 746 issued by FERC approving IRO-006-WECC-1 (FERC approval effective on May 24, 2011) | |
| 1 | May 2, 2012 | Updated the requirements to R1. and R2. instead of R.1. and R1.2. | |
| 1 | July 1, 2011 | Effective Date | No ~~change~~Change |
| 2 | February 7, 2013 | Adopted by NERC Board of Trustees | |
| 2 | May 13, 2014 | FERC letter order issued approving IRO-006-WECC-2 (effective July 1, 2014). | |
| 3 | TBD | | Five-year review. Defined term "Qualified Transfer Path" changed to "Qualified Path" as included in the Western Interconnection Unscheduled Flow Mitigation Plan, as approved by FERC. The following defined terms were retired: 1) Qualified Transfer Path, 2) Contributing Schedule, 3) Qualified Controllable Device, 4) Relief Requirement, 5) Transfer Distribution |

| | | | |
|---|---|---|---|
| | | | Factor, and 6) Qualified Transfer Path Curtailment Event. |

NERC
NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION

# Unofficial Comment Form

## Regional Reliability Standard | IRO-006-WECC-3

**DO NOT** use this form for submitting comments. Use the electronic form to submit comments on Regional Reliability Standard **IRO-006-WECC-3 Qualified Path Unscheduled Flow (USF) Relief.** The form must be submitted by **8 p.m. Eastern, Monday, January 28, 2019.** Documents and information about this project are available on the WECC's Standards Under Development page. If you have questions, contact Standards Development Manager, Chris Larson (via email) or at (404) 446-2564.

### Background Information

The Western Electricity Coordinating Council (WECC) conducted a mandatory five-year review of Regional Reliability Standard IRO-006-WECC-2.

The WECC drafting team made the following changes:

- Clarified the purpose statement;
- Replaced defined term "Qualified Transfer Path" with "Qualified Path" as included in the Western Interconnection Unscheduled Flow Mitigation Plan, approved by the Federal Energy Regulatory Commission;
- Retired the following terms from the NERC Glossary of Terms Used in Reliability Standards because they are either no longer accurate or are no longer used in any standards:
    1. Qualified Transfer Path,
    2. Contributing Schedule,
    3. Qualified Controllable Device,
    4. Relief Requirement,
    5. Transfer Distribution Factor, and
    6. Qualified Transfer Path Curtailment Event.
- Conformed the standard to current drafting conventions and template.

### NERC Criteria for Developing or Modifying a Regional Reliability Standard

Regional Reliability Standard shall be: (1) a regional reliability standard that is more stringent than the continent-wide reliability standard, including a regional standard that addresses matters that the continent-wide reliability standard does not; or (2) a regional reliability standard that is necessitated by a physical difference in the bulk power system. Regional reliability standards shall provide for as much uniformity as possible with reliability standards across the interconnected bulk power system of the North American continent. Regional reliability standards, when approved by FERC and applicable authorities in Mexico and Canada, shall be made part of the body of NERC reliability standards and shall be enforced

upon all applicable bulk power system owners, operators, and users within the applicable area, regardless of membership in the region.

The approval process for a regional reliability standard requires NERC to publicly notice and request comment on the proposed standard. Comments shall be permitted only on the following criteria (technical aspects of the standard are vetted through the regional standards development process):

> **Open** — Regional reliability standards shall provide that any person or entity that is directly and materially affected by the reliability of the bulk power system within the regional entity shall be able to participate in the development and approval of reliability standards. There shall be no undue financial barriers to participation. Participation shall not be conditional upon membership in the regional entity, a regional entity or any organization, and shall not be unreasonably restricted on the basis of technical qualifications or other such requirements.
>
> **Inclusive** — Regional reliability standards shall provide that any person with a direct and material interest has a right to participate by expressing an opinion and its basis, having that position considered, and appealing through an established appeals process, if adversely affected.
>
> **Balanced** — Regional reliability standards shall have a balance of interests and shall not be dominated by any two-interest categories and no single-interest category shall be able to defeat a matter.
>
> **Due Process** — Regional reliability standards shall provide for reasonable notice and opportunity for public comment. At a minimum, the standard shall include public notice of the intent to develop a standard, a public comment period on the proposed standard, due consideration of those public comments, and a ballot of interested stakeholders.
>
> **Transparent** — All actions material to the development of regional reliability standards shall be transparent. All standards development meetings shall be open and publicly noticed on the regional entity's Web site.

Review the revised Regional Reliability Standard and answer the following questions.

1. Do you agree the development of the Regional Reliability Standard met the "Open" criteria as outlined above? If "No", please explain in the comment area below:

   ☐ Yes
   ☐ No
   Comments:

2. Do you agree the development of the Regional Reliability Standard met the "Inclusive" criteria as outlined above? If "No", please explain in the comment area below:

☐ Yes
☐ No
Comments:

3. Do you agree the development of the Regional Reliability Standard met the "Balanced" criteria as outlined above? If "No", please explain in the comment area below:

   ☐ Yes
   ☐ No
   Comments:

4. Do you agree the development of the Regional Reliability Standard met the "Due Process" criteria as outlined above? If "No", please explain in the comment area below:

   ☐ Yes
   ☐ No
   Comments:

5. Do you agree the development of the Regional Reliability Standard met the "Transparent" criteria as outlined above? If "No", please explain in the comment area below:

   ☐ Yes
   ☐ No
   Comments:

# Comment Report

| | |
|---|---|
| **Project Name:** | Regional Reliability Standard (WECC) \| IRO-006-WECC-3 |
| Comment Period Start Date: | 12/14/2018 |
| Comment Period End Date: | 1/28/2019 |
| Associated Ballots: | |

There were 4 sets of responses, including comments from approximately 4 different people from approximately 4 companies representing 4 of the Industry Segments as shown in the table on the following pages.

**Questions**

**1. Do you agree the development of the Regional Reliability Standard met the "Open" criteria as outlined above? If "No", please explain in the comment area below:**

**2. Do you agree the development of the Regional Reliability Standard met the "Inclusive" criteria as outlined above? If "No", please explain in the comment area below:**

**3. Do you agree the development of the Regional Reliability Standard met the "Balanced" criteria as outlined above? If "No", please explain in the comment area below:**

**4. Do you agree the development of the Regional Reliability Standard met the "Due Process" criteria as outlined above? If "No", please explain in the comment area below:**

**5. Do you agree the development of the Regional Reliability Standard met the "Transparent" criteria as outlined above? If "No", please explain in the comment area below:**

| Organization Name | Name | Segment(s) | Region | Group Name | Group Member Name | Group Member Organization | Group Member Segment(s) | Group Member Region |
|---|---|---|---|---|---|---|---|---|

| 1. Do you agree the development of the Regional Reliability Standard met the “Open” criteria as outlined above? If “No”, please explain in the comment area below: | |
|---|---|
| **Aaron Cavanaugh - Bonneville Power Administration - 1,3,5,6 - WECC** | |
| **Answer** | Yes |
| **Document Name** | |
| **Comment** | |
| None | |
| Likes 0 | |
| Dislikes 0 | |
| **Response** | |
| | |
| **Richard Jackson - U.S. Bureau of Reclamation - 1,5** | |
| **Answer** | Yes |
| **Document Name** | |
| **Comment** | |
| | |
| Likes 0 | |
| Dislikes 0 | |
| **Response** | |
| | |
| **Kevin Salsbury - Berkshire Hathaway - NV Energy - 5** | |
| **Answer** | Yes |
| **Document Name** | |
| **Comment** | |
| | |
| Likes 0 | |
| Dislikes 0 | |
| **Response** | |
| | |
| **Adrian Andreoiu - BC Hydro and Power Authority - 1,3,5** | |

| | |
|---|---|
| **Answer** | Yes |
| **Document Name** | |
| **Comment** | |
| | |
| Likes 0 | |
| Dislikes 0 | |
| **Response** | |
| | |

| 2. Do you agree the development of the Regional Reliability Standard met the “Inclusive” criteria as outlined above? If “No”, please explain in the comment area below: | |
|---|---|
| **Aaron Cavanaugh - Bonneville Power Administration - 1,3,5,6 - WECC** | |
| **Answer** | Yes |
| **Document Name** | |
| **Comment** | |
| None | |
| Likes 0 | |
| Dislikes 0 | |
| **Response** | |
| | |
| **Adrian Andreoiu - BC Hydro and Power Authority - 1,3,5** | |
| **Answer** | Yes |
| **Document Name** | |
| **Comment** | |
| | |
| Likes 0 | |
| Dislikes 0 | |
| **Response** | |
| | |
| **Kevin Salsbury - Berkshire Hathaway - NV Energy - 5** | |
| **Answer** | Yes |
| **Document Name** | |
| **Comment** | |
| | |
| Likes 0 | |
| Dislikes 0 | |
| **Response** | |
| | |
| **Richard Jackson - U.S. Bureau of Reclamation - 1,5** | |

| | |
|---|---|
| **Answer** | Yes |
| **Document Name** | |
| **Comment** | |
| | |
| Likes 0 | |
| Dislikes 0 | |
| **Response** | |
| | |

| 3. Do you agree the development of the Regional Reliability Standard met the “Balanced” criteria as outlined above? If “No”, please explain in the comment area below: | |
|---|---|
| **Aaron Cavanaugh - Bonneville Power Administration - 1,3,5,6 - WECC** | |
| **Answer** | Yes |
| **Document Name** | |
| **Comment** | |
| None | |
| Likes 0 | |
| Dislikes 0 | |
| **Response** | |
| | |
| **Richard Jackson - U.S. Bureau of Reclamation - 1,5** | |
| **Answer** | Yes |
| **Document Name** | |
| **Comment** | |
| | |
| Likes 0 | |
| Dislikes 0 | |
| **Response** | |
| | |
| **Kevin Salsbury - Berkshire Hathaway - NV Energy - 5** | |
| **Answer** | Yes |
| **Document Name** | |
| **Comment** | |
| | |
| Likes 0 | |
| Dislikes 0 | |
| **Response** | |
| | |
| **Adrian Andreoiu - BC Hydro and Power Authority - 1,3,5** | |

| | |
|---|---|
| **Answer** | Yes |
| **Document Name** | |
| **Comment** | |
| | |
| Likes 0 | |
| Dislikes 0 | |
| **Response** | |
| | |

| 4. Do you agree the development of the Regional Reliability Standard met the “Due Process” criteria as outlined above? If “No”, please explain in the comment area below: | |
|---|---|
| **Aaron Cavanaugh - Bonneville Power Administration - 1,3,5,6 - WECC** | |
| **Answer** | Yes |
| **Document Name** | |
| **Comment** | |
| None | |
| Likes 0 | |
| Dislikes 0 | |
| **Response** | |
| | |
| **Adrian Andreoiu - BC Hydro and Power Authority - 1,3,5** | |
| **Answer** | Yes |
| **Document Name** | |
| **Comment** | |
| | |
| Likes 0 | |
| Dislikes 0 | |
| **Response** | |
| | |
| **Kevin Salsbury - Berkshire Hathaway - NV Energy - 5** | |
| **Answer** | Yes |
| **Document Name** | |
| **Comment** | |
| | |
| Likes 0 | |
| Dislikes 0 | |
| **Response** | |
| | |
| **Richard Jackson - U.S. Bureau of Reclamation - 1,5** | |

| | |
|---|---|
| **Answer** | Yes |
| **Document Name** | |
| **Comment** | |
| | |
| Likes 0 | |
| Dislikes 0 | |
| **Response** | |
| | |

| 5. Do you agree the development of the Regional Reliability Standard met the “Transparent” criteria as outlined above? If “No”, please explain in the comment area below: | |
|---|---|
| **Aaron Cavanaugh - Bonneville Power Administration - 1,3,5,6 - WECC** | |
| **Answer** | Yes |
| **Document Name** | |
| **Comment** | |
| None | |
| Likes 0 | |
| Dislikes 0 | |
| **Response** | |
| | |
| **Richard Jackson - U.S. Bureau of Reclamation - 1,5** | |
| **Answer** | Yes |
| **Document Name** | |
| **Comment** | |
| | |
| Likes 0 | |
| Dislikes 0 | |
| **Response** | |
| | |
| **Kevin Salsbury - Berkshire Hathaway - NV Energy - 5** | |
| **Answer** | Yes |
| **Document Name** | |
| **Comment** | |
| | |
| Likes 0 | |
| Dislikes 0 | |
| **Response** | |
| | |
| **Adrian Andreoiu - BC Hydro and Power Authority - 1,3,5** | |

| | |
|---|---|
| **Answer** | Yes |
| **Document Name** | |
| **Comment** | |
| | |
| Likes 0 | |
| Dislikes 0 | |
| **Response** | |
| | |

# Exhibit F

## Standard Drafting Team Roster

# Drafting Team Roster

## WECC-0130 IRO-006-WECC-3
## Qualified Transfer Path Unscheduled Flow Relief
## Five-year Review

Below please find a biographical snapshot for the members of the WECC-0130 IRO-006-WECC-3, Qualified Transfer Path Unscheduled Flow Relief, Five-year Review Drafting Team.

| Name | Background |
|---|---|
| Susan Millar, Bonneville Power Administration | Ms. Millar is a Senior Policy Advisor for System Operations at the Bonneville Power Administration.<br>Qualifications include:<br>• Senior Policy Advisor to System Operations on regulatory issues and internal and external initiatives affecting reliable operation of the Bulk Electric System (BES);<br>• Transmission Provider Representative to the WECC Market Interface Committee;<br>• Subject Matter Expert on Open Access Transmission (BPA and Pro-forma) Tariff, including Attachment J concerning Procedures for Parallel Flows;<br>• Active participant in Task Force discussions developing Peak Reliability Enhanced Curtailment Calculator (ECC), including Phase 2, transition from webSAS to webIntegrity implementing the Unscheduled Flow Mitigation Plan (UFMP); and Phase 4, regarding the expansion of ECC tool application to multiple elements/facilities in the Western Interconnection greater than the UFMP Qualified Paths; and<br>• Actively monitoring the entry of new Reliability Coordinator candidates in the Western Interconnection. |
| Jim Price, California Independent System Operator | Mr. Price is a Senior Advisor in Market Quality and Renewable Integration at the California Independent System Operator (CAISO).<br>Qualifications include:<br>• Bachelor of Science in Engineering and Applied Science from the California Institute of Technology; |

| | |
|---|---|
| | • Master of Science and a Doctor of Philosophy degree in Civil Engineering from Stanford University;<br>• 19 years of experience at the California Public Utilities Commission;<br>• 18 years at the CAISO in Market Operations, Market & Infrastructure Development, and Market Quality & Renewable Integration;<br>• Member and vice chair of Peak Reliability's Enhanced Curtailment Calculator (ECC) Task Force; and<br>• Former chair of the WECC Seams Issues Subcommittee and the Market and Seams Issues Subcommittee. |
| Gerardo Ugalde, Southwest Power Pool | Mr. Ugalde is a supervisor with the Southwest Power Pool (SPP) where he supervises the calculation of Available Flowgate Capability, Available Transmission Capability, and other related calculations in support of Transmission service and Flowgate capacity. His team works with neighboring systems to create policies determining what constitutes Firm versus Non-Firm, and to better coordinate congestion across the seams. His team also provides technical support to administer the Western Interconnection Unscheduled Flow Mitigation Plan for the Southwest Power Pool.<br>Qualifications include:<br>• Ten years of experience working for the Southwest Power Pool;<br>• Five years of experience in Energy Management System modeling and Network application support;<br>• Three years of experience in markets, primarily supporting congestion management and Security Constrained Economic Dispatch software;<br>• Two years of experience in his current role;<br>• Subject matter expert in evidence production in support of NERC MOD Standards MOD-001-1a, MOD-004-1, MOD-008-1, MOD-029-2a and MOD-030-3; and<br>• Subject matter expert for the Seams group in which he monitors parallel loop flows on neighboring systems, and coordinates congestion management and use tools such as Market-to-Market (M2M) with the Midcontinent Independent System Operator and the IDC Transmission Loading Relief (TLR). |

| | |
|---|---|
| Kathee Downey, PacifiCorp | Ms. Downey is a Transmission Grid Operations Adviser at PacifiCorp.<br>Qualifications include:<br>• Continuing involvement in multiple WECC committees and associated drafting teams relating to WECC Interchange Scheduling and Accounting Sub-Committee (ISAS) and Federal Energy Regulatory Commission (FERC) Order 764;<br>• Current representative on the WECC Operating Committee and ISAS;<br>• Subject matter expert for NERC IRO-006-3, Reliability Coordination, and IRO-006-WECC-2, Qualified Transfer Path Unscheduled Flow Relief; and<br>• Member of the Peak Enhanced Curtailment Calculator Task Force and an end user for the unscheduled flow tool. |
| Sean Erickson, Western Area Power Administration | Mr. Erickson is a Senior Power Operations Specialist at the Western Area Power Administration.<br>Qualifications include:<br>• Two years of experience as a WECC Reliability Coordinator (2009–2011);<br>• Two years of experience as a WECC Reliability Coordination Operations Engineer (2007–2009);<br>• Four years of experience as an Operations Engineer (2011–2015);<br>• Currently serving as the Transmission Alternate on the WECC Operating Committee as well as the WECC Ballot Body representative for both WECC and NERC;<br>• Previous member of the WECC Performance Work Group during the BAL-001 field trial evaluations;<br>• Previous member of the Path Operator Task Force (POTF) (post-September 8, 2011, NERC/FERC findings and mitigation regarding Path Operations) and the POITF–Implementation Team for the Operational adoption of the POTF findings; and<br>• Contributor to retiring TOP-007-WECC-1a, System Operating Limits. |