NERC
NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION

July 8, 2009

VIA ELECTRONIC FILING

David Erickson
Interim President and Chief Executive Officer
Alberta Electric System Operator
2500, 330 – 5 Avenue SW
Calgary, Alberta
T2P 0L4

Re: *North American Electric Reliability Corporation*

Dear Mr. Erickson:

The North American Electric Reliability Corporation ("NERC") hereby submits this petition seeking approval of one proposed regional Reliability Standard of the Western Electricity Coordinating Council ("WECC"), IRO-006-WECC-1 - Qualified Transfer Path Unscheduled Flow (USF) Relief and six associated new definitions included below and set forth in **Exhibit A** to this petition:

- **Contributing Schedule:** A Schedule not in the Qualified Transfer Path between a Source Balancing Authority and a Sink Balancing Authority that contributes unscheduled flow across the Qualified Transfer Path.
- **Qualified Transfer Path:** A transfer path designated by the WECC Operating Committee as being qualified for WECC unscheduled flow mitigation.
- **Qualified Controllable Device:** A controllable device installed in the Interconnection for controlling energy flow; the WECC Operating Committee has approved using the device for controlling the USF on the Qualified Transfer Paths.
- **Qualified Transfer Path Curtailment Event:** Each hour that a Transmission Operator calls for Step 4 or higher for one or more consecutive hours (*See* Attachment 1 IRO-006-WECC-1) during which the curtailment tool is functional.

- **Relief Requirement:** The expected amount of the unscheduled flow reduction on the Qualified Transfer Path that would result by curtailing each Sink Balancing Authority's Contributing Schedules by the percentages listed in the columns of WECC Unscheduled Flow Mitigation Summary of Actions Table in Attachment 1 WECC IRO-006-WECC-1.
- **Transfer Distribution Factor (TDF):** The percentage of USF that flows across a Qualified Transfer Path when an Interchange Transaction (Contributing Schedule) is implemented. [*See* the WECC Unscheduled Flow Mitigation Summary of Actions Table (Attachment 1 WECC IRO-006-WECC-1).]

The proposed regional Reliability Standard was approved by the NERC Board of Trustees during its February 10, 2009 meeting. NERC requests an effective date of the first day of the first quarter after applicable U.S. regulatory and Canadian regulatory approval where appropriate.

This petition consists of the following:

- this transmittal letter;
- a table of contents for the entire petition;
- a narrative description justifying the proposed regional Reliability Standard;
- regional Reliability Standard, IRO-006-WECC-1 Qualified Transfer Path Unscheduled Flow (USF) Relief, submitted for approval (**Exhibit A**);
- the NERC Board of Trustees' Resolution on IRO-006-WECC-1 Qualified Transfer Path Unscheduled Flow (USF) Relief (**Exhibit B**);
- the complete development record of the proposed regional Reliability Standard (**Exhibit C**); and
- the Standard Drafting Team roster (**Exhibit D**).

Please contact the undersigned if you have any questions.

Respectfully submitted,

/s/ Holly A. Hawkins

Holly A. Hawkins

Attorney for North American Electric Reliability Corporation

BEFORE THE
ALBERTA ELECTRIC SYSTEM OPERATOR

NORTH AMERICAN ELECTRIC	**)**
RELIABILITY CORPORATION	**)**

PETITION OF THE NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION FOR APPROVAL OF PROPOSED WESTERN ELECTRICITY COORDINATING COUNCIL REGIONAL RELIABILITY STANDARD IRO-006-WECC-1 QUALIFIED TRANSFER PATH UNSCHEDULED FLOW (USF) RELIEF

Rick Sergel
President and Chief Executive Officer
David N. Cook
Vice President and General Counsel
North American Electric Reliability Corporation
116-390 Village Boulevard
Princeton, NJ 08540-5721
(609) 452-8060
(609) 452-9550 – facsimile
david.cook@nerc.net

Rebecca J. Michael
Assistant General Counsel
Holly A. Hawkins
Attorney
North American Electric Reliability Corporation
1120 G Street, N.W.
Suite 990
Washington, D.C. 20005-3801
(202) 393-3998
(202) 393-3955 – facsimile
rebecca.michael@nerc.net
holly.hawkins@nerc.net

July 8, 2009

TABLE OF CONTENTS

I. INTRODUCTION

The North American Electric Reliability Corporation ("NERC") hereby requests approval of one regional Reliability Standard, IRO-006-WECC-1 - Qualified Transfer Path Unscheduled Flow (USF) Relief and six associated new definitions of the following terms, which are included in Exhibit A, and are identified below:

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

The regional Reliability Standard proposed by the Western Electricity Coordinating Council ("WECC") will be in effect only within the Western Interconnection. These Regional Entity definitions will be included in NERC's Glossary of Terms and will explicitly state that the terms only apply within WECC. This petition is the first request by NERC for approval of this proposed Regional Reliability Standard.

On February 10, 2009, the NERC Board of Trustees approved IRO-006-WECC-1, Qualified Transfer Path Unscheduled Flow (USF) Relief, a regional Reliability Standard proposed by WECC. NERC requests that the approval of this WECC regional Reliability Standard, to be made effective the first day of the first quarter after approval. NERC filed this regional Reliability Standard with the Federal Energy Regulatory Commission ("FERC") on June 17, 2009, and is filing this regional Reliability Standards with the other applicable governmental authorities in Canada. **Exhibit A** to this filing sets forth the proposed WECC regional Reliability Standard. **Exhibit B** is the NERC Board of Trustees' Resolution to approve the proposed WECC regional Reliability Standard. **Exhibit C** contains the complete record of development for the proposed WECC regional

Reliability Standard that includes WECC's development and approval process prior to submitting the proposed standard to NERC, WECC's submittal request to NERC for evaluation of its proposed regional Reliability Standard, NERC's response and evaluation of the proposed regional Reliability Standard, and the comments received during the industry-wide comment period NERC conducted on the proposed WECC regional Reliability Standard. **Exhibit D** includes WECC's standard drafting team roster.

II. NOTICES AND COMMUNICATIONS

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

Rick Sergel
President and Chief Executive Officer
David N. Cook
Vice President and General Counsel
North American Electric Reliability Corporation
116-390 Village Boulevard
Princeton, NJ 08540-5721
(609) 452-8060
(609) 452-9550 – facsimile
david.cook@nerc.net

Rebecca J. Michael
Assistant General Counsel
Holly A. Hawkins
Attorney
North American Electric Reliability Corporation
1120 G Street, N.W.
Suite 990
Washington, D.C. 20005-3801
(202) 393-3998
(202) 393-3955 – facsimile
rebecca.michael@nerc.net

III. BACKGROUND

a. Regional Reliability Standards Development Procedure

Section 311 of the NERC Rules of Procedure enables a Regional Entity to develop regional Reliability Standards that become mandatory and enforceable upon approval. WECC's *Process for Developing and Approving WECC Standards* is included as **Exhibit C** of the Delegation Agreement between NERC and WECC. Section 312 of the NERC Rules of Procedure provides that NERC shall rebuttably presume that a

regional Reliability Standard to be applied on an Interconnection-wide basis that is developed by a Regional Entity organized on an Interconnection-wide basis is just, reasonable, and not unduly discriminatory or preferential, and in the public interest, and consistent with such other applicable standards of governmental authorities.[1]

Section 312 of the NERC Rules of Procedure also establishes other factors for the NERC Board of Trustees to consider in acting on a request to approve proposed Regional Standards. The NERC Board of Trustees must consider the Regional Entity's request, NERC's recommendation for action on the regional Reliability Standard, any unresolved stakeholder comments, and the Regional Entity's consideration of the comments in determining whether to approve the regional Reliability Standard as a NERC Reliability Standard.[2]

On June 10, 2008, WECC submitted a request to NERC to approve, and submit to FERC for approval, IRO-006-WECC-1 - Qualified Transfer Path Unscheduled Flow (USF) Relief, the proposed regional Reliability Standard that is the subject of this petition. WECC developed this standard following its *Process for Developing and Approving WECC Standards* ("WECC Process"). WECC is organized on an Interconnection-wide basis and the proposed standard will be applicable on an Interconnection-wide basis. Therefore, NERC rebuttably presumes it is just, reasonable, and not unduly discriminatory or preferential, and in the public interest. Further, WECC stated, and NERC agrees, that the proposed WECC regional Reliability Standard establishes requirements that are more stringent than or covers areas not covered by current NERC Reliability Standards.

[1] NERC Rules of Procedure at Section 312.
[2] NERC Rules of Procedure at Section 312.3.1.

Upon receipt of WECC's request, NERC commenced an evaluation of the regional Reliability Standard and initiated a 45-day public comment period, as prescribed by Section 312 of NERC's Rules of Procedures. WECC responded to the comments presented during the NERC posting and requested NERC to present the WECC regional Reliability Standard for NERC Board of Trustees approval.

During this evaluation, NERC identified a shortcoming in the standard, namely that the proposed standard includes a defined term for Transfer Distribution Factor ("TDF") that conflicts with the NERC defined term in the NERC Glossary of Terms. WECC acknowledged this inconsistency in its response to NERC's comments. WECC and NERC agreed to address the inconsistency in defined terms by proposing a modification to the NERC defined term using the standards development process with the intent that the modified definition would be technically sufficient for use within WECC and the entirety of North America. In the interim, the proposed defined term for TDF will be effective within WECC only. NERC's evaluation of the proposed regional Reliability Standard is available in **Exhibit C**. The proposed WECC regional Reliability Standard was approved by the NERC Board of Trustees on February 10, 2009, for filing with FERC and applicable governmental authorities in Canada.

b. Progress in Improving Proposed Reliability Standards

On June 8, 2007 in the Order Approving Regional Reliability Standards for the Western Interconnection and Directing Modifications ("June 8 Order"), FERC approved, with conditions, eight WECC Tier 1 Reliability Management System ("RMS") Regional Reliability Standards stating that the reliability of the bulk power system of the Western

Interconnection is best served by their implementation.[3] FERC approved the following WECC Regional Entity standards in the June 8 Order:

- BAL-STD-002-0 — Operating Reserves
- IRO-STD-006-0 — Qualified Path Unscheduled Flow Relief
- PRC-STD-001-1 — Certification of Protective Relay Applications and Settings
- PRC-STD-003-1 — Protective Relay and Remedial Action Scheme Misoperation
- PRC-STD-005-1 — Transmission Maintenance
- TOP-STD-007-0 — Operating Transfer Capability
- VAR-STD-002a-1 — Automatic Voltage Regulators
- VAR-STD-002b-1 — Power System Stabilizers

In addition, FERC directed WECC to develop several modifications to the regional Reliability Standards when WECC develops, through its Reliability Standards development process, permanent, replacement Reliability Standards, including the following:

(1) remove the one-year term limitation;
(2) address the shortcomings in the standards within one year of approval by FERC, including removing the sanctions table that conflicts with the NERC Sanction Guidelines;
(3) until the WECC sanction table is removed, follow the NERC Sanction Guidelines to the maximum extent possible within the limits of the WECC sanction table; and
(4) monitor and enforce the standards under a delegation agreement between NERC and WECC, once that agreement is approved.[4]

In addition to these general directives, FERC directed WECC to develop a replacement for the IRO-STD-006-0 Qualified Path Unscheduled Flow (USF) Relief Reliability Standard, to clarify the term "receiver" used in the standard, and to address the

[3] *North American Electric Reliability Corporation*, "Order Approving Regional Reliability Standards for the Western Interconnection and Directing Modifications," 119 FERC ¶ 61,260 (2007).
[4] *Id*. at P 16.

concerns with identifying Load Serving Entities in the applicability of the standard. FERC also directed WECC to meet its commitment to address the shortcomings identified during the NERC review, including formatting concerns and the inconsistency between NERC and WECC's definition of the term "disturbance."

In June 2008, WECC submitted seven proposed Regional Reliability Standards to replace the eight original Reliability Standards that FERC approved in 2007, one of which, IRO-006-WECC-1, is the subject of this filing.[5] WECC used the same WECC Process, described above, in developing this proposed standard. NERC confirmed that WECC followed the process approved in its Regional Delegation Agreement with NERC in developing the replacement standard that is proposed in this filing.

In addition to addressing FERC's concerns noted in the June 8 Order, WECC made substantial technical modifications to the proposed standard IRO-006-WECC-1 on its own accord to fully address FERC's concerns regarding the applicability of Load Serving Entities and with the use of the "receiver." NERC continues to rebuttably presume these modifications to the standard are just, reasonable, and not unduly discriminatory or preferential, and in the public interest.

The proposed WECC regional Reliability Standard is to be applied on an interconnection-wide basis. Because there was no strong technical objection from commenters, and because the regional Reliability Standard was developed by those from the Western Interconnection to apply in the Western Interconnection through a process that enabled all those with an interest in the standards to be heard, NERC does not object to the technical merits of the proposed regional Reliability Standard. Additionally,

[5] The six remaining WECC Regional Entity standards were submitted to NERC, approved by the Board of Trustees, and filed for approval on April 7, 2009.

NERC's public posting of this proposed regional Reliability Standard did not elicit any significant technical objection. Further, considering the proposed standard on its merits, NERC agrees that the proposed standard meets the criteria for consideration and approval as a regional Reliability Standard.

IV. JUSTIFICATION FOR APPROVAL OF PROPOSED RELIABILITY STANDARD

This section summarizes the development of the proposed regional Reliability Standard IRO-006-WECC-1, describes the reliability objectives to be achieved by approving the regional Reliability Standard, explains the development history of the Reliability Standard, and explains how the standard meets the criteria for approval. NERC, in its analysis of the proposed regional Reliability Standard, determined that the standard is just, reasonable, not unduly discriminatory or preferential, and in the public interest.

The complete development record for the proposed Reliability Standard is provided in **Exhibit C** and includes the WECC development and approval process, comments received during the industry-wide comment period NERC conducted on the proposed standard, WECC's responses to those comments, WECC ballot information, WECC's submittal request to NERC for evaluation of the proposed regional Reliability Standard and NERC's evaluation of the proposed standard.

a. Basis and Purpose of IRO-006-WECC-1 — Qualified Transfer Path Unscheduled Flow (USF) Relief

The primary purpose of this regional Reliability Standard is to mitigate transmission overloads due to unscheduled flow on Qualified Transfer Paths. In the proposed IRO-006-WECC-1 standard, responsibility for initiating schedule curtailment is

assigned to the Reliability Coordinators, and the responsibility for implementing the curtailments is assigned to Balancing Authorities. This regional Reliability Standard is intended to create a permanent replacement standard for IRO-STD-006-0.

As explained in Section 312.1 of NERC's Rules of Procedure, "[r]egional 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."[6] The proposed IRO-006-WECC-1 Regional Standard is justified on the basis that the standard requirements are more stringent than the associated NERC Reliability Standard IRO-006-4 - Transmission Loading Relief. Specifically, the NERC continent-wide Reliability Standard IRO-006-4 Reliability Standard requires a Reliability Coordinator experiencing a potential or actual System Operating Limit ("SOL") or Interconnection Reliability Operating Limit ("IROL") violation to take appropriate actions to relieve transmission loading relief using local or Interconnection-wide procedures (Requirement R1). However, the proposed regional Reliability Standard goes beyond the NERC requirements by establishing a process to reduce schedules that prevent potential overloads during the next operating hour. Furthermore, IRO-006-WECC-1 R1 requires each Reliability Coordinator to approve (actively or passively) or deny a request submitted by a Transmission Operator of a Qualified Transfer Path (for Step 4 or higher as described in Attachment 1 to the Regional Entity standard) within five minutes. IRO-006-WECC-1 Requirement R2 requires each Balancing Authority to approve the curtailment requests to the schedules as submitted, implement alternative actions, or a combination thereof, that collectively meet the Relief Requirement. Accordingly, NERC agrees that the proposed IRO-006-WECC-1 regional Reliability

[6] NERC Rules of Procedure at Section 312.1.

Standard meets the criteria for approval, and recommends approval because it serves a valuable reliability purpose.

Demonstration that the proposed Reliability Standard is just, reasonable, not unduly discriminatory or preferential and in the public interest

1. Proposed Reliability Standard is designed to achieve a specified reliability goal

The proposed regional Reliability Standard, IRO-006-WECC-1 – Qualified Transfer Path Unscheduled Flow (USF) Relief, is designed to achieve the specific reliability goal of providing transmission loading relief to mitigate transmission overloads due to unscheduled flow on Qualified Transfer Paths in the Western Interconnection. Because of the physical nature of the Bulk Electric System in the Western Interconnection, there are times when circulating flows, caused by schedules other than those "on-path" schedules of the Transmission Operator ("TOP") and outside the direct control of the TOP, result in significant flows across the Qualified Paths, potentially resulting in flows that exceed System Operating Limits ("SOLs"). In those situations where the TOP has taken action to reduce the flows on a Qualified Path but, because of Contributing Schedules, the flows are still near or exceeding the SOLs, IRO-006-WECC-1 requires curtailment of Contributing Schedules or provision of comparable relief through other means, so that the TOP of the Qualified Path can keep the actual flow within the SOLs.

2. Proposed Reliability Standard contains a technically sound method to achieve the goal

The proposed regional Reliability Standard, IRO-006-WECC-1 – Qualified Path Unscheduled Flow Relief was developed by a drafting team comprised of experts in the areas of electric grid operations and merchants from throughout the Western Interconnection and contains a technically sound method to achieve its goal. IRO-006-WECC-1 will replace the existing approved standard, IRO-STD-006-0. IRO-STD-006-0 was developed as a translation of the original WECC Reliability Management System requirements and does not conform to the current NERC functional model. The existing standard assigns Load Serving Entities ("LSEs") the responsibility of curtailing schedules to reduce unscheduled flow, a reliability function that the NERC functional model now assigns to Reliability Coordinators and Balancing Authorities. In the functional model, NERC does not assign these tasks to LSEs. Additionally, the existing IRO-STD-006-0 Regional Entity standard places the sole responsibility for providing relief upon the LSE without providing the ability for the LSE to ensure compliance (***e.g.***, the Balancing Authority does not have to approve a curtailment request made by the LSE). When IRO-STD-006-0 was approved, FERC directed WECC to address this concern in developing a permanent replacement Reliability Standard.

In the proposed standard, IRO-006-WECC-1 – Qualified Path Unscheduled Flow Relief, responsibility for initiating schedule curtailment is assigned to the Reliability Coordinators and the responsibility for implementing the curtailments is assigned to Balancing Authorities. The proposed regional Reliability Standard utilizes a similar approach to the currently approved version but is aligned with the NERC functional model to provide a comparable level of Contributing Schedule relief. However, it has

been revised to remove responsibilities for reliability from LSEs. The proposed standard now reads:

> **R.1.** Upon receiving a request of Step 4 or greater (see Attachment 1-IRO-006-WECC-1) from the Transmission Operator of a Qualified Transfer Path, the Reliability Coordinator shall approve (actively or passively) or deny that request within five minutes. *[Violation Risk Factor: Medium] [Time Horizon: Real-time Operations]*
>
> **R.2.** The Balancing Authorities shall approve curtailment requests to the schedules as submitted, implement alternative actions, or a combination there of that collectively meets the Relief Requirement. *[Violation Risk Factor: Medium] [Time Horizon: Real-time Operations]*

A Contributing Schedule is defined as a Schedule not on the Qualified Transfer Path between a Source Balancing Authority and a Sink Balancing Authority that contributes unscheduled flow across the Qualified Transfer Path. In the Western Interconnection, the Transfer Distribution Factor ("TDF")[7] is the percentage of Unscheduled Flow that flows across the Qualified Transfer Path when an Interchange Transaction (Contributing Schedule) is implemented. Technical studies identify the TDF for Contributing Schedules across Qualified Transfer Paths. Relief Requirements, curtailments to contributing schedules, or alternative actions, or a combination thereof that collectively meet the Relief Requirement, are identified in Attachment 1, WECC IRO-006-WECC-1, where the expected amount of unscheduled flow reduction on the Qualified Transfer Path is identified based on the current step of the Unscheduled Flow Mitigation Procedure and the TDF of the Contributing Schedule.

The proposed standard improves the efficiency of the program, provides for more certain Unscheduled Flow relief, and results in fewer complications associated with multiple entities taking partial responsibility for curtailment activity. For these reasons,

[7] NERC defines TDF as "The portion of an Interchange Transaction, typically expressed in per unit that flows across a transmission facility (Flowgate)." This is different than the definition used in the Western Interconnection.

the proposed Reliability Standard is technically sound and is superior to the existing approved IRO-STD-006-0 standard.

3. Proposed Reliability Standard is applicable to users, owners and operators of the bulk power system, and not others

The proposed regional Reliability Standard is applicable only to users, owners and operators of the bulk power system located within WECC, and not others. As identified in the applicability section of the proposed standard, the requirements in the proposed regional Reliability Standards are only applicable to Balancing Authorities and Reliability Coordinators within the Western Interconnection. No Balancing Authorities or Reliability Coordinators outside of WECC or other registered entities within WECC are required to comply with these requirements.

4. Proposed Reliability Standard is clear and unambiguous as to what is required and who is required to comply

The proposed regional Reliability Standard applies exclusively to Balancing Authorities and Reliability Coordinators within WECC. NERC's Compliance Registry identifies, by name, the specific entities registered for these two functions and therefore the specific entities that are obligated to comply with the proposed standard.

The proposed regional Reliability Standard's two requirements clearly and unambiguously establish the applicable entities' compliance obligations by: (1) identifying that Reliability Coordinators determine whether or not action must be taken to initiate the curtailment of Contributing Schedules as identified by the webSAS tool (a computer program developed to identify Contributing Schedules and the required curtailment amounts) in Requirement R1, and (2) requiring that Balancing Authorities approve the curtailment requests initiated through the webSAS tool in Requirement R2.

5. Proposed Reliability Standard includes clear and understandable consequences and a range of penalties (monetary and/or non-monetary) for a violation

The proposed regional Reliability Standard includes a Violation Risk Factor and Violation Severity Level for each main requirement in the proposed regional Reliability Standard. Upon approval, the ranges of penalties for violations will be based on the applicable Violation Risk Factor and Violation Severity Level and will be administered based on the sanctions table and supporting penalty determination process described in the NERC Sanction Guidelines, Appendix 4B in NERC's Rules of Procedure.

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

Section C of the proposed regional Reliability Standard contains individual measures that support both of the standard's requirements by clearly identifying what is required and how the requirement will be enforced. These two measures ensure the requirements will be enforced in a clear, consistent, and non-preferential manner and without prejudice to any party. Measurement M1 requires Reliability Coordinators to have evidence that it approved or denied any transmission loading relief requests within five minutes. Measurement M2 requires that Balancing Authorities have evidence that they provided the Relief Requirement through Contributing Schedules curtailments, alternative actions, or a combination that collectively meets the Relief Requirement necessary to reduce flow on the Qualified Path.

Furthermore, to aid in the compliance monitoring process, a Reliability Standard Audit Worksheet ("RSAW") will be developed for this proposed regional Reliability Standard once it is approved. RSAWs also assist the applicable registered entity in

understanding what the entity is expected to provide in support of the particular measures to demonstrate compliance.

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

The proposed regional Reliability Standard requires a level of transmission loading relief sufficient to ensure reliable operation of the Bulk Electric System in the Western Interconnection similar to that required under the existing WECC regional Reliability Standard. The proposed standard clearly identifies the required actions by the Reliability Coordinators and Balancing Authorities. The conflicts with the NERC Functional Model in the existing regional Reliability Standard, that is, the assignment of reliability functions to the LSE, have been corrected. These improvements better enable the proposed standard to achieve the stated reliability goal.

On the whole, the total aggregate cost to the applicable entities should remain the same as the existing level of curtailments because the curtailment relief requirement remains the same. The proposed regional Reliability Standard clarifies that the Balancing Authority is responsible for approving curtailment requests, or implementing alternative actions, to provide the necessary Relief Requirement. The drafting team developed a clear approach, which moderates potential cost shifts while ensuring adequate overall reliability equal to the existing standard. Identifying the Reliability Coordinator, the entity with the wide area reliability view, as the entity responsible for approving or denying the request for Step 4 or greater of the WECC Unscheduled Flow Mitigation procedure, and identifying the Balancing Authority as the responsible entity for approving curtailments, rather than identifying the LSE as the entity responsible for

providing relief, results in improved reliability. Ultimately, the proposed regional Reliability Standard that contains this modified approach was approved by WECC's Operating Committee and Board of Directors.

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

While NERC standard IRO-006-4 – Transmission Loading Relief requires the Reliability Coordinator to provide transmission loading relief using one or more procedures, the proposed regional Reliability Standard requires the Reliability Coordinator to approve or deny requests for relief and the Balancing Authority to approve curtailment requests, implement alternative actions, or a combination there of that collectively meets the relief requirements to mitigate potential SOL violations and provide Contributing Schedule curtailments to mitigate potential overloads.

9. Proposed Reliability Standard considers costs to implement for smaller entities but not at consequence of less than excellence in operating system reliability

The proposed regional Reliability Standard was neither developed nor adopted solely to protect against the imposition of reasonable expenses. The drafting team considered and evaluated the effect of the changes in the curtailment process on the distribution of costs among applicable entities and determined that the change provided in the proposed regional Reliability Standard results in no cost-shift since the curtailment amounts are the same as the existing IRO-STD-006-0 regional Reliability Standard. There was no special accommodation made for smaller entities in the proposed standard. Importantly, the proposed methodology increases the certainty of curtailments and reliability enforcement thereby enhancing reliable operations relative to the current approved version of the regional Reliability Standard, IRO-STD-006-0. Furthermore, the

proposed standard will apply equally to all applicable entities in a consistent manner. The record of development in **Exhibit C** demonstrates that no stakeholder offered comments pertaining to the cost impact of the standard relative to the size of the entity. In addition and in particular, no small entity commented expressing a concern on cost to implement.

10. Proposed Reliability Standard is designed to apply throughout North America to the maximum extent achievable with a single Reliability Standard while not favoring one area or approach

The proposed regional Reliability Standard applies throughout the Western Interconnection and does not favor one area or approach.

A Reliability Standard proposed by a Regional Entity must meet the same standards that NERC's Reliability Standards must meet, *i.e.*, the regional Reliability Standard must be shown to be just, reasonable, not unduly discriminatory or preferential, and in the public interest.

The proposed IRO-006-WECC-1 standard is more stringent than the NERC standard IRO-006-4 – Transmission Loading Relief Standard. The NERC Reliability Standard IRO-006-4 – Transmission Loading Relief requires a Reliability Coordinator experiencing a potential or actual SOL or Interconnection Reliability Operating Limit ("IROL") violations to take appropriate actions to relieve transmission loading using local or interconnection-wide procedures (Requirement R1). The proposed regional Reliability Standard goes beyond the NERC Reliability Standard IRO-006-4 by establishing a process to reduce schedules that prevent potential overloads during the next operating hour. IRO-006-WECC-1 Requirement R1 requires each Reliability Coordinator to approve or deny a request submitted by a Transmission Operator of a

Qualified Transfer Path (for Step 4 or higher as described in "Attachment 1 WECC IRO-006-WECC-1 WECC Unscheduled Flow Mitigation Summary of Actions") within five minutes. Requirement R2 requires each Balancing Authority to approve the curtailment requests to the schedules as submitted, implement alternative actions, or a combination there of that collectively meets the Relief Requirement.

11. Proposed Reliability Standard causes no undue negative effect on competition or restriction of the grid

The proposed regional Reliability Standard does not restrict the available transmission capability or limit use of the bulk power system in a preferential manner. The proposed regional Reliability Standard includes a fair and reliable methodology for curtailing Contributing Schedules through a fair and equitable process that includes alternative curtailment options to meet the Relief Requirements.

12. The implementation time for the proposed Reliability Standard is reasonable.

To facilitate implementation of compliance monitoring and reporting, the IRO-006-WECC-1 drafting team identified refinements to the webSAS tool and the curtailment procedure to implement the revised standard. Under the direction of the WECC Unscheduled Flow Administrative Subcommittee and the drafting team, refinements to allow TOPs to submit curtailment requests and permit the Reliability Coordinators to actively and passively approve curtailment requests were implemented in the webSAS program. However, since the proposed regional Reliability Standard is not effective yet, the refinements have not been put into operation. Because the refinements to webSAS have been completed, the drafting team believes that only a short time is needed to implement the new IRO-006-WECC-1 standard. Therefore, WECC and NERC

request that the proposed regional Reliability Standard become effective on the first day of the first quarter after regulatory approval.

13. The Reliability Standard development process was open and fair

The proposed regional Reliability Standard was developed in accordance with the Process for Developing and Approving WECC Standards, which provides for a fair and open regional Reliability Standards development process. Specifically, this process included drafting by an open and inclusive standards drafting team; consideration of industry comments received during three WECC public posting and comment periods; approval by the WECC Operating Committee; approval by the WECC Board of Directors; WECC response to comments received by NERC as a result of NERC public posting; WECC response to comments by FERC Staff; WECC response to comments by NERC Staff; and production of other supporting documentation in response to various public and staff questions or concerns.

14. Proposed Reliability Standard balances with other vital public interests

Neither NERC nor WECC believes there are any competing public interests with respect to the request for approval of this proposed regional Reliability Standard. No comments were received that indicated the proposed standard conflicts with other vital public interests.

15. Proposed Reliability Standard considers any other relevant factors

NERC does not propose any additional factors for consideration at this time.

V. SUMMARY OF THE RELIABILITY STANDARD DEVELOPMENT PROCEEDINGS

a. Development History

In September 2007, WECC posted the initial draft of IRO-006-WECC-1 for industry comment. The drafting team reviewed and responded to initial comments in November 2007. During the first comment period, WECC received comments from six entities. Of the six entities submitting comments, four indicated support for the proposed regional Reliability Standard. One commenter provided suggested modifications to the language of Requirement R1 and the Violation Severity Levels associated with Requirement R1. The drafting team implemented changes to the proposed standard to address these comments. One commenter suggested changes that the drafting team believed duplicated language in an existing NERC continent-wide Reliability Standard, and no changes were made as a result of this comment.

In November 2007, the drafting team posted a second draft of the proposed standard for comment. During the second comment period WECC received comments from two entities. Both commenters indicated support for the proposed regional Reliability Standard, with one of the two commenters providing suggested additional definitions or revisions to existing definitions in the proposed standard. The drafting team made changes to clarify one of the definitions and responded to the remainder of the suggested changes but made no additional changes.

In March, 2008, the WECC Operating Committee voted on IRO-006-WECC-1. The standard received 73 votes in favor, two no votes and eight abstentions. In April, 2008 the WECC Board of Directors unanimously approved IRO-006-WECC-1.

Concurrent with WECC Board consideration of the proposed regional standard in April, 2008 and as permitted by NERC's Rules of Procedure, WECC submitted and NERC posted IRO-006-WECC-1 for the required 45-day public posting that took place from April 4, 2008 – May 20, 2008. During the NERC 45 day posting, no substantial technical comments were made. WECC submitted the proposed regional Reliability Standard to NERC in June, 2008 along with the drafting team's Consideration of Comments.

In accordance with NERC's Rules of Procedure and the Regional Reliability Standards Evaluation Procedure approved by the Regional Reliability Standards Working Group, NERC provided its evaluation of the WECC proposed regional Reliability Standard IRO-006-WECC-1 – Qualified Transfer Path Unscheduled Flow Relief on July 30, 2008 and identified several concerns. NERC's general observation was that the proposed standard was significantly modified from that of the existing IRO-STD-006-0 standard. Specifically, NERC commented that the proposed standard no longer contains requirements that are more stringent than the continent-wide NERC Reliability Standard IRO-006-4 — Reliability Coordination — Transmission Loading Relief. This was the main justification for consideration of IRO-006-WECC-1 as the regional standard.

WECC modified the existing standard such that the proposed standard, IRO-006-WECC-1, only includes the curtailment portion of the Unscheduled Flow Mitigation Plan. The existing approved standard IRO-STD-006-0 references WECC's Unscheduled Flow Mitigation Plan that contains directions to reduce flows that include phase-angle regulators, series capacitors, and back-to-back DC lines before transaction curtailment. These aspects made IRO-STD-006-0 more stringent than the NERC standard. The

impact of eliminating the technical requirements that specify when an operator is to request a curtailment and the procedure for mitigating the overload is that the proposed standard appeared to no longer meet the FERC criteria for approving a regional standard specified in Order No. 672. NERC staff presented this concern to the NERC Board of Trustees at its October 29, 2008 meeting. The Board deferred action on the proposed standard to permit NERC staff to further coordinate with WECC staff regarding this concern.

NERC staff and WECC staff met several times thereafter to discuss the concern. In November, 2008, WECC staff provided NERC with a set of documents further explaining the proposed standard. WECC asserted that the companion regional standard, TOP-007-WECC-1 - System Operating Limits addressed the concerns regarding the obligation to act using the WECC Unscheduled Flow Mitigation Procedure. NERC staff responded with a list of follow-up questions for further consideration by WECC in December, 2008.

One of the two follow-up questions asked for clarification regarding the treatment of certain paths (WECC Major Transfer Paths) within WECC. WECC uses TOP-007-WECC-1 to manage the transfer path power flow on the Major WECC Transfer Paths (using local and other relief procedures to ensure that power flows do not exceed SOL for more than 30 minutes). Also, IRO-006-WECC-1 is used to ensure that Reliability Coordinators are responding to curtailment requests by the Transmission Operators on six of these transfer paths. However, NERC identified one path that is not included in the list of Major Transfer Paths. This could mean that TOP-007-WECC-1 does not apply to this

path and as such the Transmission Operator is not actively monitoring power flows and taking immediate action to relieve flow to not exceed its SOL.

In response to NERC's concern, WECC clarified that there is not a gap in reliability because the Transmission Operator is responsible for managing each transfer path's power flow. If a Transmission Operator requests the curtailment of off-path schedules, Requirement R1 of IRO-006-WECC-1 requires the Reliability Coordinator to approve or deny the request. The Reliability Coordinator's opportunity to deny the request is intended to prevent off-path schedule curtailments from causing other reliability problems of which the Transmission Operator may not be aware. Further, flow across the specific "missing" path in question is not significantly impacted by unscheduled flow under normal system conditions, but only when a specific generating unit is out of service. During instances when this generator is out of service, this specific path then becomes a subset of a path that is included in the list of Major Transfer Paths. Therefore, this specific path is not identified explicitly as one of the 40 major paths in TOP-007-WECC-1.

The second NERC question requested clarification on the role the Reliability Coordinator has in initiating curtailments. In the proposed standard, IRO-006-WECC-1, the Reliability Coordinator is only obligated to respond to a Transmission Operator's curtailment request; however, there is no mention in either the proposed standard IRO-006-WECC-1 or TOP-007-WECC-1 that the entity with the wide area view, the Reliability Coordinator, can initiate curtailment requests if needed for reliability. Finally, neither standard indicates what recourse the Transmission Operator has within WECC if the Reliability Coordinator denies the request for curtailment. WECC confirmed that the

Reliability Coordinator does not actually initiate the curtailments, but rather, approves the Transmission Operator's request for curtailment(s). When a Transmission Operator submits a request to the Reliability Coordinator for off-path schedule curtailments as specified in the Unscheduled Flow Mitigation Plan, the Transmission Operator submits those requests to the Reliability Coordinator through the OATI webSAS tool. Requirement R1 of IRO-006-WECC-1 requires the Reliability Coordinator to approve or deny the request using the webSAS tool. Unless the Reliability Coordinator denies the request for reliability reasons, the webSAS tool, through preprogrammed algorithms, identifies the off-path schedules to curtail and submits those curtailments to Balancing Authorities, Purchasing Selling Entities, Generator Operators and Transmission Operators identified on the tags.

WECC also confirmed that the Reliability Coordinator has the wide-area view, not the Transmission Operator. Transmission Operators are responsible for managing each transfer path's power flow and have several options according to WECC's procedures. When a Transmission Operator requests the curtailment of off-path schedules, the Reliability Coordinator may deny the request for reliability reasons. If the Reliability Coordinator denies a curtailment request, the Transmission Operator in coordination with the Reliability Coordinator would then follow one of the other WECC or local procedures for reducing path flow. With respect to the broader concern that the proposed standard was modified such that it only contains the curtailment portion of the Unscheduled Flow Mitigation Plan, WECC explained that it is not necessary to reference the remainder of the Unscheduled Flow Mitigation Plan because the remaining items contain procedural requirements explaining "how," not "what." The proposed IRO-006-

WECC-1 standard includes requirements to reduce schedules, which then require adjustments to generation patterns. This prevents potential overloads during the next operating hour. Importantly, the requirements for mitigation of an actual (real-time) overload are contained in TOP-007-WECC-1 — System Operating Limits. This requirement, along with the requirements identified in the proposed IRO-006-WECC-1, ensures that the TOP will utilize the phase-angle regulators, series capacitors, and back-to-back DC lines before transaction curtailment.

In the process of discussing the concerns in the NERC evaluation, WECC and NERC identified a shortcoming in the existing continent wide standard, IRO-006-4 – Transmission Loading Relief. Historically, the NERC continent-wide standard, IRO-006-3, at one point stood alone as the only standard, continent-wide or regional, to address the procedure to be used in WECC for Unscheduled Flow Mitigation. This was accomplished in Requirements R2 and R2.2 that state:

> R2: A Reliability Coordinator experiencing a potential or actual SOL or IROL violation within its Reliability Coordinator Area, shall, at its discretion, select from either a "local" (Regional, Interregional, or subregional) transmission loading relief procedure or an Interconnection-wide procedure.
>
> R2.2. The equivalent Interconnection-wide transmission loading relief procedure for use in the Western Interconnection is the "WSCC Unscheduled Flow Mitigation Plan," provided at http://www.wecc.biz/documents/library/UFAS/UFAS_mitigation_plan_rev_2001-clean_8-8-03.pdf.

In June 2007, FERC approved WECC regional standard IRO-STD-006-0 to supplement the NERC continent-wide standard. Later in 2007, the NERC Board of Trustees approved Version 4 of the IRO-006 continent-wide standard. While the language in the main requirement, now labeled Requirement R1, is intended to be the

same as in the version 3 of the standard stated above, the sub-requirement pertaining to WECC was modified to state the following:

> R1.2 The Interconnection-wide transmission loading relief procedure for use in the Western Interconnection is WECC-IRO-STD-006-0 provided at http://www.nerc.com/docs/standards/rrs/IRO-STD-006-0_17Jan07.pdf.

Because the original version of the WECC regional standard (IRO-STD-006-1) now referenced in the continent-wide standard also referred to the WECC Unscheduled Flow Mitigation Plan, there was no concern with the reference change in the continent-wide standard. However, the current proposed WECC regional standard, IRO-006-WECC-1, no longer references the Mitigation Plan nor contains the details that the original version of the regional standard contained. The result is a situation where the combination of NERC continent-wide standard IRO-006-4 and proposed WECC regional standard IRO-006-WECC-1 no longer includes the Unscheduled Flow Mitigation Plan reference or the implementation details it once contained. As a result, WECC requested, and NERC agreed, to reference the Unscheduled Flow Mitigation Plan in its continent-wide IRO-006-4 standard, Requirement R1.2. At its January 2009 meeting, the Standards Committee agreed to process the incorrect reference as an errata change. Once corrected, the continent-wide standard will properly reference the incorporated WECC mitigation procedure. NERC will be filing this errata change in the next few weeks.

In addition to the technical concerns discussed above, the NERC evaluation revealed that the proposed standard includes a defined term for TDF that conflicts with the NERC defined term in the NERC Glossary of Terms. WECC acknowledged this inconsistency in the response to NERC's comments. WECC and NERC agreed to address the inconsistency in defined terms by proposing a modification to the applicable

continent-wide NERC defined term using the standards development process with the intent that the modified definition would be technically sufficient for use across North America. The NERC definition for TDF is therefore not technically applicable to the Western Interconnection because it refers to "Flowgates," a term not used in the Western Interconnection. In addition, the NERC defined term specifies that the Interchange Transaction portion is typically expressed per unit and flows across a transmission facility (Flowgate). This does not apply to the Western Interconnection but rather is expressed in a percentage flow across a transmission facility. WECC proposes that with minor modifications to the NERC defined term, the inconsistency will be addressed and the duplicative term will be withdrawn. This issue is pending before the TLR standard drafting team.

Finally, NERC identified during its evaluation that, while the proposed standard contains clear Violation Severity Levels, these compliance elements should be in a consistent format with the continent-wide standards. WECC also acknowledged this inconsistency and agreed to address it during the next revision of the standard after regulatory approval.

As a result of the additional clarification provided by WECC during the evaluation period, the IRO-006-WECC-1 – Qualified Transfer Path Unscheduled Flow Relief regional Reliability Standard was approved by the NERC Board of Trustees on February 10, 2009. **Exhibit B** of this filing contains the NERC Board of Trustees' Resolution on the WECC Regional Reliability Standard.

b. Key Issues

FERC Directives

FERC approved IRO-STD-006-0 – Qualified Path Unscheduled Flow Relief regional Reliability Standard in its June 8 Order. In the June 8 Order, FERC directed WECC to develop several specific modifications to the regional Reliability Standard when WECC develops, through its Reliability Standards development process, permanent, replacement Reliability Standards. These modifications included:

- Remove the sanctions table that is inconsistent with the NERC Sanctions Guidelines and add Violation Risk Factors and Violation Severity Levels;
- Clarify the term "receiver" and the applicability of the standard;
- Consider industry comments that LSEs may not be able to meet the requirements of the regional Reliability Standard (IRO-STD-006-0);
- Conform the standard to the NERC Reliability Standards format, specifically the effective date; and
- Align the definition of "disturbance" with the NERC definition.

FERC also directed WECC to meet its commitment to address the shortcomings identified during the NERC review of the standard including the formatting concerns.

The proposed regional Reliability Standard IRO-006-WECC-1 – Qualified Transfer Path Unscheduled Flow (USF) Relief addresses the FERC directives. In developing a replacement standard WECC:

- Removed the sanctions table and added Violation Risk Factors and Violation Severity Levels;
- Removed the term "receiver" in the applicability section of the proposed standard and assigned the applicability to Reliability Coordinators and Balancing Authorities;
- Considered the industry comments regarding LSE's and modified the applicability section of the proposed standard and assigned the applicability to Reliability Coordinators and Balancing Authorities;
- Conformed the proposed standard to the NERC Reliability Standards format including the effective date; and
- Removed the proposed definition for "disturbance".

In removing the definition for "disturbance" WECC noted that the differences in the definitions are not significant to the interpretation of the standard.

Key Issues during Standard Development

The drafting team identified and addressed one key issue during the development of the proposed IRO-006-WECC-1 regional Reliability Standard. In its June 8 Order, FERC directed WECC, among other things, to consider industry comments that the LSEs may not be able to meet the requirements of the existing regional Reliability Standard IRO-STD-006-0. This was the only key issue that had been identified by commenters during the initial translation of the WECC Reliability Management System ("RMS") requirements to regional Reliability Standards when the initial interim Tier 1 Standards were developed. To address this concern and the FERC directive, the drafting team modified the requirements of the standard to be applicable to the Reliability Coordinator and Balancing Authority. As evidenced by the vote of the industry at the WECC Operating Committee ("WECC OC") meeting and the unanimous approval of the regional Reliability Standard by the WECC Board of Directors, this change addressed the industries concerns with the original standard.

Exhibit C of this filing contains the record of development of the proposed Reliability Standard, including the minority opinions expressed from the WECC OC vote received before the WECC Board of Directors balloted IRO-006-WECC-1.

VI. CONCLUSION

NERC requests approval of the regional Reliability Standard IRO-006-WECC-1 – Qualified Transfer Path Unscheduled Flow Relief and the related definitions to replace regional Reliability Standard IRO-STD-006-0. The reliability of the bulk

power system of the Western Interconnection is best served by the implementation of this proposed regional Reliability Standard. In the interest of improved reliability, NERC staff recommends approval of the proposed regional standard.

Respectfully submitted,

/s/ Holly A. Hawkins

Rick Sergel
President and Chief Executive Officer
David N. Cook
Vice President and General Counsel
North American Electric Reliability Corporation
116-390 Village Boulevard
Princeton, NJ 08540-5721
(609) 452-8060
(609) 452-9550 – facsimile
david.cook@nerc.net

Rebecca J. Michael
Assistant General Counsel
Holly A. Hawkins
Attorney
North American Electric Reliability Corporation
1120 G Street, N.W.
Suite 990
Washington, D.C. 20005-3801
(202) 393-3998
(202) 393-3955 – facsimile
rebecca.michael@nerc.net
holly.hawkins.@nerc.net

Exhibit A – Reliability Standard Proposed

WECC Standard IRO-006-WECC-1 – Qualified Transfer Path Unscheduled Flow Relief

Standard Development Roadmap

This section is maintained by the drafting team during the development of the standard and will be removed when the standard becomes effective.

Development Steps Completed:

Completed Actions	Completion Date
1. Post Draft Standard for initial industry comments	September 21, 2007
2. Drafting Team to review and respond to initial industry comments	November 30, 2007
3. Post Draft Standard for industry comments	November 30, 2007
4. Drafting Team to review and respond to industry comments	January 17, 2008
5. Post Draft Standard for Operating Committee approval	January 17, 2008
6. Operating Committee approved proposed standard	March 6, 2008
7. Post Draft Standard for WECC Board approval	March 12, 2008
8. Post Draft Standard for NERC comment period	April 14, 2008
9. WECC Board approved proposed standard	April 16, 2008
10. NERC comment period ends	May 20, 2008
11. Drafting Team to review and respond to industry comments	May 31, 2008

Description of Current Draft:

The purpose of this standard is to create a permanent replacement standard for IRO-STD-006-0. IRO-006-WECC-1 is designed to implement the directives of FERC and recommendations of NERC when IRO-STD-006-0 was approved as a NERC reliability standard.

This version of the IRO-006-WECC-1 standard is for NERC Board of Trustee ballot. The WECC Board of Directors approved the standard April 16, 2008. WECC Operating Committee approved the standard March 6, 2008. The WECC Board of Directors and Operating Committee request that the NERC Board of Trustees approve the IRO-006-WECC-1 Standard as a permanent replacement standard for IRO-STD-006-0 and that the NERC Board of Trustees submits the standard to FERC for approval and replacement of IRO-STD-006-0.

Future Development Plan:

Anticipated Actions	Anticipated Date
1. NERC Board approval request	June 2008
2. Request FERC approval	June 2008

Definitions of Terms Used in Standard

This section includes all newly defined or revised terms used in the proposed standard. Terms already defined in the Reliability Standards Glossary of Terms are not repeated here. New or revised definitions listed below become approved when the proposed standard is approved. When the standard becomes effective, these definitions will be removed from the standard and added to the Glossary.

DEFINITIONS:

Contributing Schedule is defined as a Schedule not on the Qualified Transfer Path between a Source Balancing Authority and a Sink Balancing Authority that contributes unscheduled flow across the Qualified Transfer Path.

Qualified Transfer Path: A transfer path designated by the WECC Operating Committee as being qualified for WECC unscheduled flow mitigation.

Qualified Controllable Device: A controllable device installed in the Interconnection for controlling energy flow, and the WECC Operating Committee has approved using the device for controlling the USF on the Qualified Transfer Paths.

Qualified Transfer Path Curtailment Event: Each hour that a Transmission Operator calls for Step 4 or higher for one or more consecutive hours (see Attachment 1-IRO-006-WECC-1) during which the curtailment tool is functional.

Transfer Distribution Factor (TDF): The percentage of USF that flows across a Qualified Transfer Path when an Interchange Transaction (Contributing Schedule) is implemented. [See the WECC Unscheduled Flow Mitigation Summary of Actions Table (Attachment 1 WE**CC** IRO-006-WECC-1).]

Relief Requirement: The expected amount of the unscheduled flow reduction on the Qualified Transfer Path that would result by curtailing each Sink Balancing Authority's Contributing Schedules by the percentages listed in the columns of WECC Unscheduled Flow Mitigation Summary of Actions Table in Attachment 1 WE**CC** IRO-006-WECC-1.

WECC Standard IRO-006-WECC-1 – Qualified Transfer Path Unscheduled Flow Relief

A. Introduction

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

2. Number: IRO-006-WECC-1

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

4. Applicability

4.1. Balancing Authorities

4.2 Reliability Coordinators

5. Effective Date: The first day of the first quarter after applicable regulatory approvals.

B. Requirements

R.1. Upon receiving a request of Step 4 or greater (see Attachment 1-IRO-006-WECC-1) from the Transmission Operator of a Qualified Transfer Path, the Reliability Coordinator shall approve (actively or passively) or deny that request within five minutes. *[Violation Risk Factor: Medium] [Time Horizon: Real-time Operations]*

R.2. The Balancing Authorities shall approve curtailment requests to the schedules as submitted, implement alternative actions, or a combination there of that collectively meets the Relief Requirement. *[Violation Risk Factor: Medium] [Time Horizon: Real-time Operations]*

C. Measures

M1. The Reliability Coordinator shall have evidence that it approved or denied the request within five minutes in accordance with R1.

M2. The Balancing Authorities shall have evidence that they provided the Relief Requirement through Contributing Schedules curtailments, alternative actions, or a combination that collectively meets the Relief Requirement as directed in R.2.

D. Compliance

1. Compliance Monitoring Process

1.1 Compliance Monitoring Responsibility

Compliance Enforcement Authority

1.2. Compliance Monitoring Period and Reset

Compliance Enforcement Authority may use one or more of the following methods to assess compliance:

- Reviews conducted monthly
- Spot check audits conducted anytime with 30 days notice given to prepare
- Periodic audit as scheduled by the Compliance Enforcement Authority
- Investigations
- Other methods as provided for in the Compliance Monitoring Enforcement Program

1.2.1 Compliance Monitoring Period: A Qualified Transfer Path Curtailment Event

1.2.2 The Performance-reset Period is one calendar month.

1.3. Data Retention

Reliability Coordinators and Balancing Authorities shall keep evidence for Measure M.1 through M2 for three years plus current, or since the last audit, whichever is longer.

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.

2. Violation Severity Levels of Non-Compliance for Requirement R1

2.1. **Lower:** There shall be a Lower 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 Step 4 or greater request greater than five minutes after receipt of notification from the Transmission Operator of a Qualified Transfer Path.

2.2. **Moderate:** Not Applicable

2.3. **High:** Not Applicable

2.4. **Severe:** Not Applicable

3. Violation Severity Levels of Non-Compliance for Requirement R2

3.1. **Lower:** 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 provided.

3.2. **Moderate:** 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 and the Relief Requirement was greater than 5 MW and was not provided.

3.3. **High:** 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 and the Relief Requirement was greater than 5 MW and was not provided.

3.4. **Severe:** There shall be a Severe Level of non-compliance if there is less than 60% Relief Requirement provided and the Relief Requirement was greater than 5 MW and was not provided.

WECC Standard IRO-006-WECC-1 – Qualified Transfer Path Unscheduled Flow Relief

Version History – Shows Approval History and Summary of Changes in the Action Field

Version	Date	Action	Change Tracking
1	April 16, 2008	Permanent Replacement Standard for IRO-STD-006-0	

Attachment 1 WECC IRO-006-WECC-1
WECC UNSCHEDULED FLOW MITIGATION
SUMMARY OF ACTIONS

Step	Action Description	Unscheduled Flow Accommodation across Path	Equivalent Percent Curtailment Required in Contributing Schedule -Based on amount of Unscheduled Flow across the Qualified Transfer Path (Transfer Distribution Factor)				
			10-14%	15-19%	20-29%	30-49%	50+ %
1	Operate controllable devices in path	NA					
2	Accommodation	50 MW or 5% of maximum transfer limit					
3	Coordinated operation of Qualified Controllable Devices	50 MW or 5% of maximum transfer limit					
4	First level curtailment	50 MW or 5% of maximum transfer limit				10%	20%
5	Second level curtailment	50 MW or 5% of maximum transfer limit			10%	15%	25%
6	Accommodation	75 MW or 6% of maximum transfer limit			10%	15%	25%
7	Third level curtailment	75 MW or 6% of maximum transfer limit		10%	15%	20%	30%
8	Accommodation	100 MW or 7% of maximum transfer limit		10%	15%	20%	30%
9	Fourth level curtailment	100 MW or 7% of maximum transfer limit	10%	15%	20%	25%	35%

Exhibit B

The NERC Board of Trustees' Resolution on the WECC Regional Reliability Standard

NERC
NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION

Resolution of the NERC Board of Trustees

October 29, 2008
The Westin Arlington Gateway
801 North Glebe Road
Arlington, Virginia

WECC Tier 1 Reliability Standards

RESOLVED, that the North American Electric Reliability Corporation Board of Trustees approves the following proposed Regional Reliability Standards developed by the Western Electricity Coordinating Council (WECC), on condition that WECC address the shortcomings raised during the comment periods in the next revision of the standards:

FAC-501-WECC-1 — Transmission Maintenance
PRC-004-WECC-1— Protection System and Remedial Action Scheme Misoperation
TOP-007-WECC-1 — System Operating Limits
VAR-002-WECC-1 — Automatic Voltage Regulators
VAR-501-WECC-1 — Power System Stabilizer

In addition, the Board approves proposed standard BAL-002-WECC-1 — Contingency Reserves.

The Board also defers action on proposed standard IRO-006-WECC-1 — Qualified Transfer Path Unscheduled Flow (USF) Relief, pending receipt of additional information.

116-390 Village Blvd.
Princeton, NJ 08540
609.452.8060 | www.nerc.com

Exhibit C

Record of Development of Proposed WECC Regional Reliability Standard

The Unscheduled Flow Drafting Team's Reply to Comments Received During the First Posting of IRO-006-WECC-1 (Comments were due November 5, 2007)
November 30, 2007

For the reasons given in the White Paper, Chelan County PUD supports the changes to UFAS contained in the new standard.

If adopted, will BA's need to subscribe to and monitor the WebSAS tool?

Hugh Owen

Reply: The USF Drafting Team thanks you for your support. The Reliability Coordinator (RC) will communicate the curtailment information to you via your tagging system. Subscription to WebSAS may be needed to implement alternate actions pursuant to the Unscheduled Flow Mitigation Plan and communicate that information to the RCs and WECC. Path Operators will need to subscribe to WebSAS to call for relief.

Bonneville Power supports this Standard.

It is a constant challenge to keep LSE scheduling staff up to date on an issue they may only see once a year during their shift. In addition, our Power Scheduling (PSE/LSE) staff are not trained on the Western grid to help resolve reliability issues in other control areas. We have just experienced 4 possible violations due to the tool not working properly. Additional communication from WECC and OATI as well as extensive training on our end may have helped avoid this situation, but I believe the reliability of the system should not be in the hands of LSE's.

In addition, having an LSE do a Reliability curtailment has become a large issue when it comes to liquidated damages.

Thanks to the Drafting Team for helping to address and resolve issues around Unscheduled Flow.

Brenda Anderson

Reply: The USF Drafting Team thanks you for your support.

WECC Reliability Coordination Comments Work Group (RCCWG) Comments
RCCWG Members Commenting on this draft standard:
Nancy Bellows, WACM
Terry Baker, PRPA
Paul Bleuss, CMRC
Jeremy Brownrigg, RDRC
Mike Gentry, SRP
Robert Johnson, PSC

Greg Tillitson

WECC Standard IRO-006-WECC-1 – Qualified Transfer Path Unscheduled Flow Relief

The WECC RCCWG has understood from interaction from the WECC Standard IRO-006-WECC-1 Standard Drafting Team that the standard drafting team believed that the WECC Reliability Coordinators should participate in the process of initiating the curtailment of Contributing Schedules to reduce flow in accordance with Attachment 1-IRO-006-WECC-1 for the purpose of verifying that the curtailment request was valid. WECC RCCWG members were told that once a Transmission Operator of a Qualified Transfer Path requested a curtailment, the curtailment would automatically occur in 5 minutes if the WECC Reliability Coordinator did not cancel the Transmission Operator notification.

With this in mind, the measures and violation severity levels of non-compliance for Requirement R1 all point to time required past the allowed five minutes for initiation of curtailment of contributing schedules by the WECC Reliability Coordinator. All of these seem inconsistent with the knowledge that the curtailment is an automated process. The WECC RCCWG suggests that the standard drafting team consider using a measure and violation severity levels associated with a WECC Reliability Coordinator cancellation of curtailment.

WECC RCCWG
Nancy Bellows

Reply: The drafting team made refinements to R1 and the severity level associated with R1 to address the RCCWG's concerns. Also, in Measurement M1, the drafting team clarified the cancellation of a curtailment is not a violation.

The following comments refer to the White Paper.

The standard states that LSE's may have the option of selecting which schedules to curtail for compliance. Ultimately, it is the Balancing Authorities that are responsible for USF mitigation. Therefore, Balancing Authorities should have the same privileges that LSE's have when it comes to selecting which schedules to curtail.

Requirement 2 states: "Once the Source and Sink Balancing Authorities receive Curtailment requests through their tagging systems, the Balancing Authorities must actively approve the curtailment request: implement alternative actions that provide the Relief Requirement; or a combination thereof that collectively meets the Relief Requirement." Alternative actions could include a counter schedule that would cause generation redispatch in a different Balancing Authorities control area. Thereby achieving compliance without actively approving the curtailment request. Based on this, SRP would like to recommend changing the wording in the highlighted sentence to; The Balancing Authorities must approve or deny all USF curtailment requests. This would

line up with the wording in Measure 2.

Heinz Ontiveros
Salt River Project

Reply: Implementing this comment would restate INT-006-2 R1. The drafting team does not believe it is appropriate to restate a NERC requirement. Requirement 2's intent is for the Balancing Authority to provide relief. Denial of a curtailment will not necessarily provide relief.

PPL Montana & PPL EnergyPlus support the proposed Standard as currently drafted.

The proposed Standard properly applies decisions and subsequent actions regarding USF to those entities (RCs & BAs) responsible for bulk electric system reliability and removes applicability from marketing entities, such as LSEs and PSEs. Thus, the proposed Standard now aligns with the NERC Functional Model and addresses concerns as directed by the FERC.

PPLM & EPLU appreciate this opportunity to comment and the efforts of the UFAS Standard Drafting Team on this proposed Standard.

Jon Williamson
PPL EnergyPlus

Reply: The USF Drafting Team thanks you for your support.

These comments were posted by WECC staff on behalf of Denise Koehn of Bonneville Power Administration.

BPA is OK with this standard as written.

Reply: The USF Drafting Team thanks you for your support.

Consideration of Comments for IRO-006-WECC-1 – Unscheduled Flow
Comments were due January 2, 2008
January 14, 2008

The IRO-006-WECC-1 Standard Drafting Team thanks all commenters who submitted comments on the WECC IRO-006-WECC-1 Standard. This Standard was posted for a 30-day public comment period from November 30, 2007 through January 2, 2008. The Standard Drafting Team asked stakeholders to provide feedback on the standard by posting comments on the WECC website. There were two sets of comments from two companies.

In this 'Consideration of Comments' document, stakeholder comments have been organized so that it is easier to see the responses associated with each comment.

If you feel that your comment has been overlooked, please let us know immediately. Our goal is to give every comment serious consideration in this process! If you feel there has been an error or omission, you may contact the Director of Standards, Steve Rueckert at 801-582-0353 or at steve@wecc.biz. In addition, there is a WECC Appeals Process.

Comments and Responses

Bonneville Power Administration supports this Standard.

It is a constant challenge to keep LSE scheduling staff up to date on an issue they may only see once a year during their shift. In addition, our staff is not trained on the Western grid to help resolve reliability issues in others control area.

We have just experienced 4 possible violations due to the tool not working properly. Additional communication from WECC and OATI as well as extensive training on our end may have helped avoid this situation, but I believe the reliability of the system should not be in the hands of LSE's.

In addition, having an LSE do a Reliability curtailment has become a large issue when it comes to liquidated damages.

Brenda Anderson

Reply: Thank you for your support.

2-Jan-08

The standards' drafting team has taken a very complex subject and made it into something very usable. The following are comments and suggestions by PPL Energy Plus, LLC ("EPLUW").

Definitions EPLUW would like to see changed or added to:
• Contributing Schedule: Would it be more accurate to clarify that schedules are between zones within BA's rather than just between BA's?

Reply: The definition does not specify that the two Balancing Authorities have to be different. The Source Balancing Authority and Sink Balancing Authority may be the same Balancing Authority on the tag. Therefore, no change is required to the definition.

• TDF: Include a sentence stating a POS TDF loads the qualified path and a NEG TDF unloads the qualified path. This helps everyone understand the very important TDF sign relationship.

Reply: The definition for positive and negative TDFs is a training issue and should be covered in a training document not the standard. Therefore, the drafting team did not make the requested modification.

• Relief Required:
o The definition is written as if schedule curtailments were the only way to provide relief, when in reality, other actions taken by the sink BA can provide relief. Could the phrase "…result by curtailing each Sink Balancing Authority's Contributing Schedules by…" be replaced with "result by actions of the Sink BA including but not limited to curtailing contributing schedules…"?

Reply: The definition only defines how you calculate the required relief, not how to comply with the requirement. Use of alternative actions to provide the required relief is covered under R2. Therefore, the drafting team did not modify the definition.

o EPLUW would also like to see wording in the definition of Relief Required that requires the Sink BA (when using schedule curtailments to provide relief) to curtail the most effective (i.e. highest POS TDF) schedules first.

Reply: The definition only defines how you calculate the required relief, not how to comply with the requirement. If the drafting team implements this recommendation, it would remove the choice for providing the required relief. The drafting team believes the members want the ability to have a choice.

Possible definitions to include:
• A qualified Transfer Path Event should have a definition in the definitions section. The standard attempts to define Transfer Path Event in section 1.2.1.

Reply: The drafting team moved the definition from 1.2.1 to the definition section. The drafting team also clarified the definition.
The standard should clearly define what is Step 4 and the obligations related thereto and any preceding steps.

Reply: Through inclusion of the table in Attachment 1 WECC IRO-006-WECC-1, the definition of step 4 and all steps is captured.

Section D, Compliance
1.2 Monitoring - Please remove the section stating "Other methods as provided for in the Compliance Monitoring Enforcement Program" from the standard because this program could undergo changes that would not receive due process. Alternately, please list in the standard the provisions in the Compliance Monitoring Program that will be used for this standard.

Reply: The drafting team does not have authority over the compliance monitoring program. The compliance enforcement authority retains the right to modify its program as needed.

Section 1.2.2 – Please re-phrase this section to make it clear that the Compliance Monitoring period starts anew each calendar month (if this indeed is the case).

Reply: The definition for a reset period means that the compliance monitoring period begins again each month.

Section 2 – EPLUW believes Sections 2.2, 2.3, 2.4 are applicable and should be written to prevent more than one instance of the RC missing the 5 minute time requirement. It appears that as written, the standard provides no incentive for the RC to perform after the first violation of the month.

Reply: This is one tool of several that reliability coordinator and transmission operators can use to prevent violations of system operating limits. Transmission Operators are primarily responsible for keeping actual flows to within limits. The drafting team recognizes that inaction on behalf the reliability coordinator will not result in failure of the unscheduled flow mitigation plan because the webSAS tool will implement the curtailment. Therefore, the severity level is low.

EPLUW has no comments on the very clear white paper and thanks the standard drafting team for their hard work.

Reply: Thank you.

John Cummings

Western Electricity Coordination Council

Operating Committee Meeting
March 6-7, 2008
Albuquerque, NM
Voting Results

1. **Motion:**

The IRO-006-WECC-1 Standard Drafting Team recommends that the OC approve IR0-006-WECC-1 and that after regulatory approval, it shall supersede IRO-STD-006-0.

Explanation: Mitigation of transmission overloads due to unscheduled flow on Qualified Transfer Paths.

VOTING CLASS	YES	NO	ABSTAIN
TRANSMISSION PROVIDERS	33	0	1
TRANSMISSION CUSTOMERS	39	2	7
STATE and PROVINCIAL	1	0	0
TOTALS	**73**	**2**	**8**

Result: PASSED

Minority Opinion:
No minority opinions were offered at the meeting and none were received via email.

APPENDIX A

REASONS FOR NO VOTES [1]

John S. Forman, Transmission Agency of Northern California (TANC)

In response to the question of why a no vote was made on the standards at the OC meeting, TANC's OC representative voted no on five of the seven proposed standards for one basic reason: The standards require that the WECC be more stringent than the NERC standards. Those entities that have gone through an audit of the standards that are in effect are finding that they will be sited for something that is not in compliance. In other words, the auditors will keep looking until something is found to be wrong. With the WECC standards higher than NERC, even more compliance problems are anticipated. We believe that one basic instruction to the drafting teams should be that they need to justify a standard being more stringent than NERC, and that the basic draft should be no more than equal to NERC, unless it's clearly in the interest of the WECC. Our two positive votes on VAR-501 and IRO-006 are in that "best interest of WECC" category. The other standards were not. Basically, we are not sure that always being better than NERC is the right philosophy.

****

[1] The reasons for no votes in the appendix were submitted by the individual entities via email after the Operating Committee meeting. The reasons for no votes in the main document were stated at the Operating Committee Meeting in Albuquerque, NM

Board of Directors
April 16-18, 2008 Voting Summary
Coronado, CA IRO-006-WECC-1

Last Name	First Nam	Organization	Class
Anderson	Bob	Non-affiliated Director	Non-Affiliated
Areghini	David	Salt River Project	Class 1
Barbash	Carolyn	Sierra Pacific Power Company	Class 1
Beyer	Lee	California Public Utilities Commission	Class 5
Brown	Duncan	Calpine Corporation	Class 3
Campbell	Ric	Utah Public Service Commission	Class 5
Cauchois	Scott	CADRA	Class 4
Chamberlain	Bill	California Energy Commission	Class 5
Cleary	Anne	Mirant Americas, Inc.	Class 3
Conway	Teresa	Powerex Corp.	Class 6
Coughlin	John	Non-affiliated Board Member	Non-Affiliated
Dearing	Bill	Grant County PUD	Class 2
Ferreira	Richard	TANC Executive Advisor	Class 2
Grantham-Richards	Maude	Farmington Electric Utility System	Class 2
Gutting	Scott	Energy Strategies, LLC	Class 4
Kelly	Nancy	Utah Committee of Consumer Services	Class 4
King	Jack	Non-affiliated Board Member	Non-Affiliated
LaFond	Steve	The Boeing Company	Class 4
Little	Doug	British Columbia Transmission Corporation	Class 6
McMaster	Dale	Alberta Electrical System Operator	Class 6
Moya	Jesus	Comision Federal de Electricidad	Mexico
Newton	Tim	Non-affiliated Director	Non-Affiliated
Sharpless	Jananne	Non Affiliated Board Member	Non-Affiliated
Smith	Marsha	Idaho Public Utilities Commission	Class 5
Stout	John	Mariner Consulting	Class 3
Tarplee	Gary	Southern California Edison	Class 1
Thuston	Tim	Williams Power	Class 3
Weis	Larry	Turlock Irrigation District	Class 2
VanZandt	Vicki	Bonneville Power Administration	Class 1
Zaozirny	Lori Ann	British Columbia Utilities Commission	Class 6

The Board Members listed above voted whether to approve IR0-006-WECC-1.
The Regional Reliability Standard was approved unanimiously.

NERC
NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION

Comment Report Form for WECC Standard IRO-006-WECC-1 – Qualified Transfer Path Unscheduled Flow Relief

The IRO-006-WECC-1 Standard Drafting Team thanks all commenters who submitted comments on the IRO-006-WECC-1 Standard. This Standard was posted for a 45-day public comment period from April 4, 2008 through May 20, 2008. NERC distributed the notice for this posting on April 7, 2008. The Standard Drafting Team asked stakeholders to provide feedback on the standard through a special Standard Comment Form. There were two sets of comments from four companies representing four of the ten Industry Segments as shown in the table on the following pages.

In this 'Consideration of Comments' document stakeholder comments have been organized so that it is easier to see the responses associated with each question. All comments received on the Standard can be viewed in their original format at:

http://www.nerc.com/~filez/regional_standards/regional_reliability_standards_under_development.html

If you feel that your comment has been overlooked, please let us know immediately. Our goal is to give every comment serious consideration in this process! If you feel there has been an error or omission, you can contact the Manager of Regional Standards, Stephanie Monzon at Stephanie.monzon@nerc.net. In addition, there is a NERC Reliability Standards Appeals Process.[1]

[1] The appeals process is described in the NERC Regional Reliability Standards Development Procedure: ftp://www.nerc.com/pub/sys/all_updl/sac/rrswg/NERC_Regional_Reliability_Standards_Development_Procedure_Version%200-0%202007-06-15_dwt.pdf

Comment Report Form for WECC Standard IRO-006-WECC-1 – Qualified Transfer Path Unscheduled Flow Relief

The Industry Segments are:

1 — Transmission Owners
2 — RTOs, ISOs
3 — Load-serving Entities
4 — Transmission-dependent Utilities
5 — Electric Generators
6 — Electricity Brokers, Aggregators, and Marketers
7 — Large Electricity End Users
8 — Small Electricity End Users
9 — Federal, State, Provincial Regulatory or other Government Entities
10 – Regional Reliability Organizations, Regional Entities

Commenter		Organization	Industry Segment									
			1	2	3	4	5	6	7	8	9	10
1.	Chuck Westbrook	Bonneville Power	✓		✓		✓	✓				
2.	Annette Bannon	PPL Generation, LLC					✓	✓				
3.	Jon Williamson	PPL EnergyPlus						✓				
4.	John Cummings	PPL EnergyPlus						✓				
5.	Tom Olson	PPL Montana, LLC					✓					

Index to Questions, Comments, and Responses

1. **Was the WECC Standard IRO-006-WECC-1 – Qualified Transfer Path Unscheduled Flow Relief developed in a fair and open process, using the Process for Developing and Approving WECC Standards?**

Summary Consideration:

Commenter	Yes	No	Comment
Chuck Westbrook	X		
Response: Thank you.			
Annette Bannon, Jon Williamson, John Cummings, and Tom Olson	X		PPL supports this much needed update to the unscheduled flow standard.
Response: Thank you for your support.			

2. **Does the WECC Standard IRO-006-WECC-1 – Qualified Transfer Path Unscheduled Flow Relief pose an adverse impact to reliability or commerce in a neighboring region or interconnection?**

Summary Consideration:

Commenter	Yes	No	Comment
Chuck Westbrook		X	
Response: Thank you.			
Annette Bannon, Jon Williamson, John Cummings, and Tom Olson			
Response:			

3. **Does the WECC Standard IRO-006-WECC-1 – Qualified Transfer Path Unscheduled Flow Relief pose a serious and substantial threat to public health, safety, welfare, or national security?**

Summary Consideration:

Commenter	Yes	No	Comment
Chuck Westbrook		X	
Response: Thank you.			
Annette Bannon, Jon Williamson, John Cummings, and Tom Olson			

Commenter	Yes	No	Comment
Response:			

4. Does the WECC Standard IRO-006-WECC-1 – Qualified Transfer Path Unscheduled Flow Relief pose a serious and substantial burden on competitive markets within the interconnection that is not necessary for reliability?

Summary Consideration:

Commenter	Yes	No	Comment
Chuck Westbrook		X	
Response: Thank you.			
Annette Bannon, Jon Williamson, John Cummings, and Tom Olson			
Response:			

5. Does the WECC Standard IRO-006-WECC-1 – Qualified Transfer Path Unscheduled Flow Relief meet at least one of the following criteria?

- **The proposed standard has more specific criteria for the same requirements covered in a continent-wide standard**
- **The proposed standard has requirements that are not included in the corresponding continent-wide reliability standard**
- **The proposed regional difference is necessitated by a physical difference in the bulk power system.**

Summary Consideration:

Commenter	Yes	No	Comment
Chuck Westbrook	X		
Response: Thank you.			
Annette Bannon, Jon Williamson, John Cummings, and Tom Olson			
Response:			

IRO-006-WECC-1 Comparison

This following document prepared by the drafting team during the development of the WECC Standard IRO-006-WECC-1 – Contingency Reserve compares this proposed regional standard to the existing WECC IRO-STD-006-0.

The purpose of this document to provide documentation of each proposed change.

WECC Standard IRO-006-WECC-1 – Qualified Transfer Path Unscheduled Flow Relief	WECC Standard IRO-STD-006-0 - Qualified Path Unscheduled Flow Relief	Comment
A. Introduction		
1. Title: Qualified Transfer Path Unscheduled Flow (USF) Relief	**1. Title:** Transmission Maintenance	
2. Number: IRO-006-WECC-1	**2. Number:** IRO-STD-006-0	Title updated to reflect revised titling criteria
3. Purpose: Mitigation of transmission overloads due to unscheduled flow on Qualified Transfer Paths.	**3. Purpose:** Mitigation of transmission overloads due to unscheduled line flow on Qualified Paths.	Updated to reflect the overall purpose of the proposed revised standard.
4. Applicability	**4) Applicability**	
4.1 Balancing Authorities	4.1. This Standard is applicable to Transmission Owners or Operators that maintain the transmission paths in Attachment A – WECC Table 2 and is applicable only to those facilities associated with each of the paths identified.	Transmission Owners is a defined term in NERC's Functional Model, so it is used in this standard without being redefined.
4.2 Reliability Coordinators		
5. Effective Date: On the first day of the next quarter, after receipt of applicable regulatory approval.	**5. Effective Date:** This Western Electricity Coordinating Council Regional Reliability Standard will be effective when approved by the Federal Energy Regulatory Commission under Section 215 of the Federal Power Act. This Regional Reliability Standard shall be in effect for one year from the date of Commission approval or until a North American Standard or a revised Western Electricity Coordinating Council Regional Reliability Standard goes into place, whichever occurs first. At no time shall this regional Standard be enforced in addition to a similar North American Standard.	
B. Requirements	**B. Requirements**	

WECC Standard IRO-006-WECC-1 – Qualified Transfer Path Unscheduled Flow Relief	WECC Standard IRO-STD-006-0 - Qualified Path Unscheduled Flow Relief	Comment
R1. Upon receiving a request of Step 4 or greater (see Attachment 1-IRO-006-WECC-1) from the Transmission Operator of a Qualified Transfer Path, the Reliability Coordinator shall approve (actively or passively) or deny that request within five minutes. *[Violation Risk Factor: Medium] [Time Horizon: Real-time Operations]* **R2.** The Balancing Authorities shall approve curtailment requests to the schedules as submitted, implement alternative actions, or a combination there of that collectively meets the Relief Requirement. *[Violation Risk Factor: Medium] [Time Horizon: Real-time Operations]*	**WR1** **Curtailment of Contributing Schedules** WECC's Unscheduled Flow Mitigation Plan (Plan), which is on file with FERC and has been accepted by FERC (most recently prior to the date hereof on November 20, 2001 in Docket No. ERO1-3085-000), 1/ specifies that members 2/ shall comply with requests from (Qualified) Transfer Path Operators to take actions that will reduce unscheduled flow on the Qualified Path in accordance with the table entitled "WECC Unscheduled Flow Procedure Summary of Curtailment Actions," which is located in Attachment 1 of the Plan. **Plan Section 11:** 11.1 When USF Accommodation, as specified in Section 7, together with coordinated operation of the Qualified Controllable Devices, as specified in Section 9, are insufficient to reduce the Actual Flow on the Qualified Transfer Path to below the Transfer Limit, the Transfer Path Operator shall request curtailments in Schedules that contribute to the USF through the Qualified Transfer Path according to the USF Reduction Procedure. 11.2 Responsible Entities shall comply in a timely manner with a Transfer Path Operator's request for Schedule Curtailments **Plan Attachment 1 Section 9:** "h. Upon receipt of a curtailment request, Contributing Schedules which are subject to curtailments will be reduced (or	R.1 and WR1 are intended to perform the same function. The drafting team removed relay maintenance from Attachment 1 because NERC protection system reliability standards exist.

WECC Standard IRO-006-WECC-1 – Qualified Transfer Path Unscheduled Flow Relief	WECC Standard IRO-STD-006-0 - Qualified Path Unscheduled Flow Relief	Comment
	equivalent alternative schedule adjustments will be effected) in accordance with the following procedures: i. Receivers of Contributing Schedules will initiate the requested schedule reductions unless an otherwise agreed upon procedure for schedule reduction achieving the equivalent effect on the Qualified Transfer Path is established by the Receiver and/or the Sender. ii. Responsible Entities may arrange among themselves to make curtailments called for by this USF Reduction Procedure in a manner other than prescribed provided that the arrangements are as effective as the identified schedule curtailment in reducing USF across the Qualified Transfer Path. Responsible Entities may make bilateral arrangements, which will enable a Responsible Entity with schedules on the affected Qualified Transfer Path to make the required curtailments in lieu of making larger curtailments in schedules over other parallel paths. Where alternative schedule adjustments are utilized, it is the Receiver's responsibility to cause schedule adjustments to be effected which provide the same reduction in flow across the Qualified Transfer Path as would have been achieved by the prescribed reduction in the Contributing Schedule. iii. The total amount of requested schedule reduction may be apportioned to the applicable schedules at the discretion of the Receiver subject to item iv below. iv. Irrespective of the schedules altered or the manner in which they are altered, each Responsible Entity's overall net reduction in Actual Flow across the constrained Qualified Transfer Path must be equivalent to or greater than the reduction which would have	

WECC Standard IRO-006-WECC-1 – Qualified Transfer Path Unscheduled Flow Relief	WECC Standard IRO-STD-006-0 - Qualified Path Unscheduled Flow Relief	Comment
	been achieved had the identified schedule reduction occurred as requested. v. System dispatchers or real-time schedulers should identify in advance those schedules that qualify for curtailment requests for all Qualified Transfer Paths. This will expedite implementation of this USF Reduction Procedure when requested. vi. While this USF Reduction Procedure does not expect receivers to curtail schedules which would result in loss of firm load, nothing in this USF Reduction Procedure shall relieve the receiver of the obligation to achieve the required reduction in USF across the constrained Qualified Transfer Path." Contributing Schedule curtailments apply to schedules in place before initiation of the USF Procedure at Step 4 (First level Contributing Schedule Curtailment) or higher step. At the time a Step 4 Level 1 USF Action or higher step is initiated, Schedules are established by the existence of an "Implemented" NERC Transaction Tag. **Restricted Transactions** After the USF Event is declared, a transaction with greater than a 5% Transfer Distribution Factor (TDF) on the Qualified Path in the qualified direction will be considered a "Restricted Transaction." Changes to Restricted Transactions, other than the specific curtailments used to comply with relief obligations, cannot be made unless some alternative action is	

WECC Standard IRO-006-WECC-1 – Qualified Transfer Path Unscheduled Flow Relief	WECC Standard IRO-STD-006-0 - Qualified Path Unscheduled Flow Relief	Comment
	taken to compensate for the full impact on the Qualified Path. This applies to: New transaction, and Extensions or Adjustments to existing transaction." If two or more Qualified Paths become simultaneously constrained to the point where the curtailment of contributing schedules is necessary, schedule curtailments which relieve USF on one path but increase USF on any other curtailed path shall not be made, unless specific procedures or methods are provided to address this condition. The entity shall be compliant with this standard although the required curtailments were not made.	
C. Measures	**C. Compliance Measures**	
M1. The Reliability Coordinator shall have evidence that it approved or denied the request within five minutes in accordance with R1. **M2.** The Balancing Authorities shall have evidence that they provided the Relief Requirement through Contributing Schedules curtailments, alternative actions, or a combination that collectively meets the Relief Requirement as directed in R.2.	**M1.** Responsible Entities shall take actions as requested by Qualified Transfer Path Operators that result in the specified amount of Unscheduled Flow Relief for the applicable Qualified Transfer Path. These actions include, but are not limited to, one or a combination of schedule curtailments, schedule increases, and operation of non-Qualified Controllable Devices. It is the responsibility of each Responsible Entity to have in place procedures for receipt of notification of a Qualified Transfer Path Operators request. Failure to provide the required USF relief or to increase USF shall not be excused due to failure to receive notification.	Measures were simplified to correspond with each main requirement.
D. Compliance	**D Compliance**	
1 Compliance Monitoring Process	**1. Compliance Monitoring Process**	
1.1 Compliance Monitoring Responsibility Compliance Enforcement Authority	**1.1Compliance Monitoring Responsibility** Western Electricity Coordinating Council (WECC)	

WECC Standard IRO-006-WECC-1 – Qualified Transfer Path Unscheduled Flow Relief	WECC Standard IRO-STD-006-0 - Qualified Path Unscheduled Flow Relief	Comment
1.2 Compliance Monitoring Period Compliance Enforcement Authority may use one or more of the following methods to assess compliance: - Reviews conducted monthly - Spot check audits conducted anytime with 30 days notice given to prepare - Periodic audit as scheduled by the Compliance Enforcement Authority - Investigations - Other methods as provided for in the Compliance Monitoring Enforcement Program **1.2.1** Compliance Monitoring Period: A Qualified Transfer Path Curtailment Event **1.2.2** The Performance-reset Period is one calendar month.	**1.2 Compliance Monitoring Period** At Occurrence and Yearly The actions taken by Responsible Entities in response to requests by the Qualified Transfer Path Operators shall be documented and supplied to WECC Staff in accordance with the Plan Section 9. The WECC Staff will make specific requests for data submittal, including the specification of dates, hours, and required submittal dates. Responsible Entities are to report the actions taken in accordance with the Plan for each hour of a curtailment period. Each Responsible Entity shall promptly provide documentation, as requested by UFAS and/or WECC Staff, of all such accommodation, control or curtailment actions taken by its dispatchers, system operators or real-time schedulers. In addition, each Transfer Path Operator shall provide documentation to the WECC staff regarding actions taken or not taken in filling its responsibilities during each curtailment period. Responsible Entities' documentation shall use formats and reporting conventions developed and monitored by the WECC Operating Committee. Responsible Entities may use the reporting applications as adopted by the Unscheduled Flow Administrative Subcommittee (UFAS) to submit curtailment data. On or before the tenth Business Day following the date of a WECC Staff USF letter request for data, each entity shall distribute to the WECC Staff the USF information at the e-mail addresses specified on the WECC web site. The USF information shall include the identification of	Remove specificity for reporting. The Compliance Enforcement Authority will include this detail in its reporting instructions.

WECC Standard IRO-006-WECC-1 – Qualified Transfer Path Unscheduled Flow Relief	WECC Standard IRO-STD-006-0 - Qualified Path Unscheduled Flow Relief	Comment
	Responsible Entities who failed to adjust schedules according to this USF Reduction Procedure. Each Responsible Entity identified in SectionA.4.1 shall submit the completed USF Reduction Procedure Reporting output to the WECC Staff by no later than 5:00 p.m. Mountain Time on the tenth Business Day following the date of the WECC Staff USF letter. UFAS has developed an Administrative Practice 007 "Curtailment Event Selection Evaluation Process" that is utilized to select one event per path per month for Compliance Evaluation. WECC Staff selects one event during the first week following the month to review.	
1.3 Data Retention Data Retention Reliability Coordinators and Balancing Authorities shall keep evidence for Measure M.1 through M2 for three years plus current, or since the last audit, whichever is longer.	**1.3 Data Retention** Data will be retained in electronic form for at least one year. The retention period will be evaluated before expiration of one year to determine if a longer retention period is necessary. If the data is being reviewed to address a question of compliance, the data will be saved beyond the normal retention period until the question is formally resolved.	Data retention period lengthened to 3 years plus the current year to ensure data are kept in a contiguous manner between audit periods.
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.	**1.4. Additional Compliance Information** For purposes of applying the sanctions for violations of this criterion, the "Sanction Measure" is the greater of the maximum hourly integrated MWH of "Required Relief" or "USF Increase" (truncated to the nearest MW) during the specified period multiplied by 50, and the "Specified Period" is the most recent calendar month. The sanctions shall be assessed on a monthly basis, but for purposes of determining the applicable column in the table in Sanction Table, all occurrences within the specified period of the most recent calendar month and all immediately preceding consecutive calendar months in which at least one instance of non-compliance occurred shall be considered. For example, if the maximum hourly integrated Required Relief was 25 MW and the maximum hourly integrated USF Increase for the period	No longer needed because the NERC sanction table is used.

<table>
<tr><th>WECC Standard IRO-006-WECC-1 – Qualified Transfer Path Unscheduled Flow Relief</th><th>WECC Standard IRO-STD-006-0 - Qualified Path Unscheduled Flow Relief</th><th>Comment</th></tr>
<tr><td></td><td>was 30 MW, the Sanction Measure for the period would be 30 MW times 50 or 1,500. If the maximum hourly integrated Required Relief was 24 MW and the maximum hourly integrated USF Increase was 10 MW, the Sanction Measure for the period would be 24 times 50 or 1,200.</td><td></td></tr>
<tr><td>2. Violation Severity Levels of Non-Compliance for Requirement R1</td><td>Levels of Non-Compliance Sanction</td><td></td></tr>
<tr><td></td><td>Sanction Measure: Normal Path Rating
For each separate USF Schedule Curtailment event (multiple hours), the level of the noncompliance shall be based upon the magnitude of MWh relief required and the ratio of actual MWh relief provided to the required MWh of relief (truncated to the nearest MWh) for every hour that the curtailment requirement was in effect. The non-compliance levels are indicated in the table below:</td><td></td></tr>
<tr><td>2.1. Lower: There shall be a Lower 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 Step 4 or greater request greater than five minutes after receipt of notification from the Transmission Operator of a Qualified Transfer Path.
2.2. Moderate: Not Applicable
2.3. High: Not Applicable
2.4. Severe: Not Applicable</td><td>For each separate USF Schedule Curtailment event (multiple hours), the level of the noncompliance shall be based upon the magnitude of MWh relief required and the ratio of actual MWh relief provided to the required MWh of relief (truncated to the nearest MWh) for every hour that the curtailment requirement was in effect. The non-compliance levels are indicated in the table below:
<table>
<tr><th>Ratio of actual MWh relieved to the required MWh of relief (%) and magnitude of the required MWh of relief:.</th><th>Level of Non-Compliance</th></tr>
<tr><td>100% > percent relief 90% or required MWh of relief 5 and was not achieved.</td><td>Level 1</td></tr>
</table></td><td>Lower Severity Levels defined for each requirement.</td></tr>
</table>

<table>
<tr><th>WECC Standard IRO-006-WECC-1 – Qualified Transfer Path Unscheduled Flow Relief</th><th>WECC Standard IRO-STD-006-0 - Qualified Path Unscheduled Flow Relief</th><th>Comment</th></tr>
<tr><td></td><td>
<table>
<tr><td>90% > percent relief 75% and required MWh of relief > 5.</td><td>Level 2</td></tr>
<tr><td>75% > percent relief 60% and required MWh of relief > 5.</td><td>Level 3</td></tr>
<tr><td>percent relief <60% and required MWh of relief > 5.</td><td>Level 4</td></tr>
<tr><td>Failure to Report</td><td>Level 4</td></tr>
</table>
If an entity during an USF Schedule Curtailment event initiates a Restricted Transaction that increases USF across the Qualified Path requesting relief, without making an equal compensating change to other transactions, the level of noncompliance shall be determined in accordance with the table below.
<table>
<tr><th>For each hour the percent of USF increases due to</th><th>Level of Non-Compliance</th></tr>
<tr><td>0 % < USF increase 1 % of</td><td>Level 1</td></tr>
<tr><td>1 % < USF increase 2 % of</td><td>Level</td></tr>
<tr><td>2 % < USF increase 3 % of</td><td>Level</td></tr>
<tr><td>USF increase > 3 % of the</td><td>Level 4</td></tr>
</table>
For every hour that the curtailment requirement was in effect, the level of non-compliance assessed to an entity shall be the higher level of noncompliance determined under the percent relief and USF increase tables shown above.
</td><td></td></tr>
<tr><td>3. Violation Severity Levels of Non-Compliance for Requirement R2</td><td></td><td></td></tr>
<tr><td>3.1. Lower: There shall be a Lower Level of non-compliance if there is less than 100% Relief</td><td></td><td>Moderate Severity Levels defined for each requirement.</td></tr>
</table>

WECC Standard IRO-006-WECC-1 – Qualified Transfer Path Unscheduled Flow Relief	WECC Standard IRO-STD-006-0 - Qualified Path Unscheduled Flow Relief	Comment
Requirement provided but greater than or equal to 90% Relief Requirement provided or the Relief Requirement was less than 5 MW and was not provided. **3.2.** **Moderate:** 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 and the Relief Requirement was greater than 5 MW and was not provided. **3.3.** **High:** 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 and the Relief Requirement was greater than 5 MW and was not provided. **3.4.** **Severe:** There shall be a Severe Level of non-compliance if there is less than 60% Relief Requirement provided and the Relief Requirement was greater than 5 MW and was not provided.		
2.3. **High:** There shall be a High Level of non-compliance if any of the following condition exists: **2.3.1** The TMIP does not include associated Facilities for three of the Paths identified in the most current Table titled "Major WECC Transfer Paths in the Bulk Electric System" as required by R.1 and		High Severity Levels defined for each requirement.

WECC Standard IRO-006-WECC-1 – Qualified Transfer Path Unscheduled Flow Relief	WECC Standard IRO-STD-006-0 - Qualified Path Unscheduled Flow Relief	Comment
Transmission Owners are not performing maintenance and inspection for the missing Facilities. **2.3.2** The TMIP does not include three maintenance categories identified in Attachment 1 FAC-501-WECC-1 as required by R.2 but Transmission Owners are performing maintenance and inspection for the missing maintenance categories. **2.3.3** Transmission Owners are not performing maintenance and inspection for two maintenance categories identified in Attachment 1 FAC-501-WECC-1 as required in R3.		
2.4. Severe: There shall be a Severe Level of non-compliance if any of the following condition exists: **2.4.1** The TMIP does not include associated Facilities for more than three of the Paths identified in the most current Table titled "Major WECC Transfer Paths in the Bulk Electric System" as required by R.1 and Transmission Owners are not performing maintenance and inspection for the missing Facilities. **2.4.2** The TMIP does not exist or does not include more than three maintenance categories identified in Attachment 1		Severe Severity Levels defined for each requirement.

WECC Standard IRO-006-WECC-1 – Qualified Transfer Path Unscheduled Flow Relief	WECC Standard IRO-STD-006-0 - Qualified Path Unscheduled Flow Relief	Comment
FAC-501-WECC-1 as required by R.2 but Transmission Owners are performing maintenance and inspection for the missing maintenance categories. **2.4.3** Transmission Owners are not performing maintenance and inspection for more than two maintenance categories identified in Attachment 1 FAC-501-WECC-1 as required in R3.		

NERC
NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION

Regional Reliability Standard Submittal Request

Region: Western Electricity Coordinating Council

Regional Standard Number: IRO-006-WECC-1

Regional Standard Title: Qualified Transfer Path Unscheduled Flow (USF) Relief

Date Submitted: June 10, 2008

Regional Contact Name: Steven L. Rueckert

Regional Contact Title: Director of Standards

Regional Contact Telephone Number: (801) 582-0353

Request (check all that apply):

- ☒ Approval of a new standard
- ☐ Revision of an existing standard
- ☒ Withdrawal of an existing standard
- ☐ Urgent Action

Has this action been approved by your Board of Directors (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)):

- ☒ Yes April 16, 2008
- ☐ No

[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:

The purpose of this standard is to create a permanent replacement standard for IRO-STD-006-0. IRO-006-WECC-1 is designed to implement the directives of FERC and recommendations of NERC when IRO-STD-006-0 was approved as a NERC reliability standard.

Concise statement of the justification of the request:

The proposed IRO-006-WECC-1 regional reliability standard contains unscheduled flow curtailment requirements for the Western Interconnection that are currently cover in IRO-STD-006-0. The NERC standard IRO-006-4 contains requirements transmission loading relief requirements for the Eastern Interconnection and only references the WECC regional reliability standard IRO-STD-006-0, which contains the transmission loading relief requirements for the Western Interconnection.

The WECC regional reliability standard IRO-STD-006-0 and Qualified Path Unscheduled Flow Relief responsibilities do not conform to the current NERC functional model. The WECC regional reliability standard IRO-STD-006-0 standard assigns Load Serving Entities (LSEs) the responsibility of curtailing schedules to reduce unscheduled flow, a reliability function that the NERC functional model now assigns to Reliability Coordinators and Balancing Authorities. In the functional model, NERC holds that LSEs should not be assigned responsibility for reliability. Therefore, the assignment of reliability functions to LSEs is not compatible with the NERC functional model or NERC Standard IRO-006. Additionally, the existing IRO-STD-006 standard places the sole responsibility for providing relief upon the LSE without providing the ability for the LSE to ensure compliance (e.g. the Balancing Authority does not have to approve a curtailment request made by the LSE).

In the proposed IRO-006-WECC-1 standard, responsibility for initiating schedule curtailment is assigned to the Reliability Coordinators, and the responsibility for implementing the curtailments is assigned to Balancing Authorities. The proposed standard improves the efficiency of the program including improved compliance, more certain unscheduled flow relief, and fewer complications associated with multiple entities taking partial responsibility for curtailment activity.

Other – please attach or include as separate files:

- **The text of the regional reliability standard in MS Word format that:**
  - **has either been, or is anticipated to be, approved by the regional entity's board, and**
  - **is in a format consistent with the NERC template for reliability standards.**
- **An implementation plan.**
- **The regional entity standard drafting team roster.**
- **The names and affiliations of the ballot pool members or names and affiliations of the committee and committee members that approved the submittal of the standard.**
- **The final ballot results, including a list of significant minority issues that were not resolved, and**
- **For each public comment period, a copy of each comment submitted and its associated response along with the associated changes made to the standard.**

NERC
NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION

NERC Evaluation of Western Electricity Coordinating Council (WECC) Regional Standards

Executive Summary
July 30, 2008

On June 10, 2008, the WECC submitted the following seven regional standards for NERC evaluation to replace eight original WECC regional standards approved by NERC and FERC in 2007:

- BAL-002-WECC-1 — Contingency Reserves,
- FAC-501-WECC-1 — Transmission Maintenance,
- IRO-006-WECC-1 — Qualified Transfer Path Unscheduled Flow (USF) Relief,
- PRC-004-WECC-1— Protection System and Remedial Action Scheme Misoperation,
- TOP-007-WECC-1 — System Operating Limits,
- VAR-002-WECC-1 — Automatic Voltage Regulators and
- VAR-501-WECC-1 — Power System Stabilizer

NERC posted these seven proposed regional standards for a 45-day public posting beginning April 4–May 20, 2008. The standards received several comments during the NERC public posting. WECC supplied NERC with its responses to the comments on June 10, 2008. WECC did not make conforming changes to the standards as a result of the comments received during the NERC posting. WECC submitted these standards for NERC evaluation on June 10, 2008.

In accordance with NERC's *Rules of Procedure* and the *Regional Reliability Standards Evaluation Procedure* approved by the Regional Reliability Standards Working Group, NERC performed a review of the WECC proposed standards. The intent of this document is to provide WECC with NERC's feedback regarding their regional standards.

In this review, NERC presents a summary of observations for each proposed WECC regional standard. In Appendix A, NERC includes a redlined copy of each proposed regional standard with detailed comments included. NERC believes WECC has satisfied its procedural obligations as outlined in Appendix C of its Regional Delegation Agreement. However, NERC offers concerns and suggestions regarding several of the proposed regional standards that are discussed below.

116-390 Village Blvd.
Princeton, NJ 08540
609.452.8060 | www.nerc.com

Summary of Findings

IRO-006-WECC-1 — Qualified Transfer Path Unscheduled Flow (USF) Relief

1. NERC is concerned that the technical elements of the proposed standard have been removed from the current FERC-approved version of the regional standard. As presented, the proposed standard does not require the mitigation of an overload, which is the express purpose of the standard. The current version of the standard in effect, IRO-STD-006-0, contains technical provisions for the mitigation of an overload that supports the purpose statement. These provisions have not been translated into the proposed replacement standard. NERC requests that a technical rationale be provided for the removal of the technical details in the proposed standard because as proposed it is unclear that the revised standard meets the purpose of the standard, "(m)itigation of transmission overloads due to unscheduled flow on Qualified Transfer Paths."

2. The proposed standard includes the term Transfer Distribution Factor (TDF) that is a defined term in the NERC Glossary. The NERC definition is "(t)he portion of an Interchange Transaction, typically expressed in per unit that flows across a transmission facility (Flowgate)." The WECC proposed definition for TDF is "(t)he percentage of USF that flows across a Qualified Transfer Path when an Interchange Transaction (Contributing Schedule) is implemented." *[See the WECC Unscheduled Flow Mitigation Summary of Actions Table (Attachment 1 WECC IRO-006-WECC-1).]*

   There are inconsistencies between the two definitions that must be resolved. It is not clear if there are intended differences between the NERC and WECC definitions. If not, NERC suggests removing the WECC proposed term from the standard. If there are intentional differences, NERC requests that WECC determine if they are able to utilize the NERC definition, and if not, to define a new term to accomplish the desired objectives.

3. The proposed standard contains clear Violation Severity Levels; however, NERC suggests utilizing the VSL table format to be consistent with the continent-wide standards.

Conclusion

NERC appreciates the opportunity to provide feedback to WECC regarding the seven proposed regional standards WECC submitted on June 11 2007. In some instances, NERC requests additional clarification on the issues and concerns outlined in this document. Others provide suggestions for improving the quality of the proposed regional standards. NERC has included detailed comments directly in the standards that can be found in Appendix A to this document. NERC has also provided comments directly into the comparison mapping documents WECC submitted along with the seven proposed standards in its submittal request.

NERC looks forward to WECC's response to these comments and ultimately, for WECC's decision on whether to request the NERC Board to approve these proposed regional standards.

WECC's Response to NERC's Comments
August 13, 2008
Draft

INTRODUCTION

WECC appreciates NERC staff's evaluation of the proposed WECC Regional Reliability Standards (RRSs) in accordance with NERC's Regional Reliability Standards Evaluation Procedure. These proposed WECC RRSs were developed as permanent replacements for the eight WECC Tier 1 RRSs that previously were approved by NERC and FERC. WECC asserts that the seven proposed standards contain all the performance elements of a Reliability Standard that are contained in the NERC Reliability Standards Development Procedure. In addition, the seven proposed standards address and implement the refinements directed by FERC's order on June 8, 2007 (see FERC Docket No. RR07-11-000) and requested by NERC in its letter dated January 9, 2007. Finally, these proposed standards implement refinements to the approved WECC Tier 1 RRSs which were recommended during the previous expedited direct translation standard development processes.

The attached WECC responses individually address each NERC comment. However, many of the comments submitted by NERC staff relate to refinements that NERC has made to the format of its Reliability Standard Template. These refinements have not been formally approved by NERC, nor have they been transmitted to the regions for comment or additional information, and were therefore unavailable to WECC during the development process. Consequently, WECC has determined not to reopen the standards development process at this stage to address these non-substantive formatting concerns. In addition, during the standards development process, WECC staff twice requested that NERC staff review the proposed WECC standards. WECC did this to ensure that the WECC standard drafting teams were complying with NERC's Regional Reliability Standards Evaluation Procedure as well as its Reliability Standards Development Procedure. NERC did not perform the evaluation of these proposed standards until WECC had completed its Process for Developing and Approving WECC Standards. WECC intends to implement the requested formatting refinements and any potential FERC-directed changes during the next revision of these standards or the next FERC compliance filing.

The proposed WECC RRSs were considered and adopted pursuant to the Process for Developing and Approving WECC Standards. Unless they are approved in their current form, WECC will have to reinitiate the entire process. The consequences of rejecting these WECC RRSs in their entirety would be counterproductive to reliability in the Western Interconnection.

The proposed WECC RRSs will enhance reliability in the Western Interconnection and they will significantly improve the existing eight WECC RRSs because they:

1. Implement ordered NERC and FERC refinements to the existing standards ordered;

2. Eliminate conflicting NERC and WECC requirements contained in the existing RRSs;
3. Include all the Performance Elements of a Reliability Standard;
4. Clarify existing WECC RRSs;
5. Align better with NERC's Functional Model, and
6. Address industry stakeholder concerns.

Therefore, WECC requests the NERC staff recommend approval of these standards to the NERC Board and FERC.

WECC's responses to NERC's initial evaluation are provided in Attachment 1.

Attachment 1

NERC's Written Comments
July 30, 2008
WECC's Written Responses
August 13, 2008

Summary of Findings

IRO-006-WECC-1 — QUALIFIED TRANSFER PATH UNSCHEDULED FLOW (USF) RELIEF

NERC COMMENT:

1. NERC is concerned that the technical elements of the proposed standard have been removed from the current FERC-approved version of the regional standard. As presented, the proposed standard does not require the mitigation of an overload, which is the express purpose of the standard. The current version of the standard in effect, IRO-STD-006-0, contains technical provisions for the mitigation of an overload that supports the purpose statement. These provisions have not been translated into the proposed replacement standard. NERC requests that a technical rationale be provided for the removal of the technical details in the proposed standard because as proposed it is unclear that the revised standard meets the purpose of the standard, "(m)itigation of transmission overloads due to unscheduled flow on Qualified Transfer Paths."

WECC RESPONSE:

1. The proposed IRO-006-WECC-1 Standard contains all the key reliability requirements and technical elements from the Unscheduled Flow Mitigation Plan (UFMP) that were included in IRO-STD-006-0. The proposed IRO-006-WECC-1 Standard uses NERC's Functional Model terminology to mitigate unscheduled flow during the next operating hour. It is not necessary to reference the remainder of the UFMP because the remaining items contain procedural requirements explaining "how," not "what." The proposed IRO-006-WECC-1 Standard includes requirements to reduce schedules, which then require adjustments to generation patterns. This prevents potential overloads during the next operating hour. Importantly, the requirements for mitigation of an actual (real-time) overload are contained in TOP-007-WECC-1.

NERC COMMENT:

2. The proposed standard includes the term Transfer Distribution Factor (TDF) that is a defined term in the NERC Glossary. The NERC definition is "(t)he portion of an Interchange Transaction, typically expressed in per unit that flows across a transmission facility (Flowgate)." The WECC proposed definition for TDF is "(t)he percentage of USF that flows across a Qualified Transfer Path when an Interchange Transaction (Contributing Schedule) is implemented." *[See the WECC Unscheduled Flow Mitigation Summary of Actions Table (Attachment 1 WECC IRO-006-WECC-1).]*

There are inconsistencies between the two definitions that must be resolved. It is not clear if there are intended differences between the NERC and WECC definitions. If not, NERC suggests removing the WECC proposed term from the standard. If there are intentional differences, NERC requests that WECC determine if they are able to utilize the NERC definition, and if not, to define a new term to accomplish the desired objectives.

WECC RESPONSE:

2. WECC acknowledges the difference between the NERC and WECC definitions for Transfer Distribution Factor (TDF). This is caused by the differences between the Eastern Interconnection Transmission Loading Relief process and the Western Interconnection UFMP. This difference in definitions exists even today between the existing FERC-approved IRO-STD-006-0 Standard and the NERC Glossary. Rejecting the proposed standard will not resolve this difference. WECC will work with NERC to resolve this and intends to make any necessary refinements during the next revision of this standard or the next FERC compliance filing. Despite the difference in the TDF definitions, **the proposed standard corrects a basic difference between the existing FERC-approved IRO-STD-006-0 Standard, which places reliability responsibilities upon the Load Serving Entities (LSEs), and the NERC Functional Model.** LSEs do not have the ability to ensure the implementation of the schedule adjustments required in the existing FERC-approved IRO-STD-006-0 Standard.

NERC COMMENT:

3. The proposed standard contains clear Violation Severity Levels; however, NERC suggests utilizing the VSL table format to be consistent with the continent-wide standards.

WECC RESPONSE:

1. WECC recognizes the unapproved NERC Reliability Standard Template requires the placement of VSLs in a table. As stated previously, WECC intends to implement this refinement during the next revision of this standard or the next FERC compliance filing.

(NERC) CONCLUSION

NERC appreciates the opportunity to provide feedback to WECC regarding the seven proposed regional standards WECC submitted on June 11 2007. In some instances, NERC requests additional clarification on the issues and concerns outlined in this document. Others provide suggestions for improving the quality of the proposed regional standards. NERC has included detailed comments directly in the standards that can be found in Appendix A to this document. NERC has also provided comments directly into the comparison mapping documents WECC submitted along with the seven proposed standards in its submittal request.

NERC looks forward to WECC's response to these comments and ultimately, for WECC's decision on whether to request the NERC Board to approve these proposed regional standards.

WECC RESPONSE

WECC appreciates the opportunity to discuss NERC staff's initial evaluation and report in conference calls on August 4 and 5, 2008 and to provide the written clarifications and responses contained herein. We trust that WECC's responses, along with all the supporting documentation contained in WECC's submissions, provide the NERC staff a comprehensive basis for recommending NERC Board of Trustees approval of all proposed standards. Please direct any questions relating to WECC's response to WECC Director of Standards, Steve Rueckert at steve@wecc.biz or (801) 883-6878.

Steven L. Rueckert
Director of Standards

801.582.0353 ext. 6878
steve@wecc.biz

Western Electricity Coordinating Council

August 18, 2008

Gerard Adamski
Vice President and Director of Standards
North American Electric Reliability Corporation
116-390 Village Boulevard
Princeton, New Jersey 08540-5721

RE: WECC's response to NERC's initial evaluation of seven WECC regional reliability standards

Dear Gerry,

WECC appreciated the opportunity to discuss NERC staff's initial evaluation of the seven WECC regional reliability standards in conference calls on August 4 and August 5. Attached are WECC's written clarifications and responses to the concerns and issues identified in NERC's written evaluation on July 30 and the subsequent conference calls.

We trust that WECC's responses, along with the supporting documentation contained in WECC's submissions, provide the NERC staff a comprehensive basis for recommending NERC Board of Trustees approval of the seven proposed regional reliability standards. Please direct any questions relating to WECC's response to WECC's Director of Standards, Steve Rueckert at steve@wecc.biz or (801) 883-6878 or Ken Wilson at ken@wecc.biz or (801) 883-6886.

Sincerely yours,

Steve Rueckert

Steven L. Rueckert

SR:
Attachment
Cc: Stephanie Monzon, NERC
Thomas J Schneider, WECC

UFAS STANDARD DRAFTING TEAM
WHITE PAPER

This paper discusses and attempts to clarify the DRAFT IRO-006-WECC-1 Standard posted for comment. The UFAS Standard Drafting Team (UFAS SDT) met on several occasions to draft a permanent replacement for IRO-STD-006-0 -- Qualified Path Unscheduled Flow Relief, which FERC approved on June 8, 2007.

Background:
On Friday June 8, 2007, the Federal Energy Regulatory Commission (FERC) issued an order approving the Western Electricity Coordinating Council (WECC) WECC-IRO-STD-006-0 (Qualified Path Unscheduled Flow Relief) Standard, which is one of the Tier 1 Regional Standards. This WECC regional reliability standard was developed using WECC's Expedited Process for Urgent Action Interim Standards. The WECC Process requires that Interim Standards must have a termination date no longer than one year from the date of implementation. Interim Standards must be converted to permanent Standards or successor standards must be developed. The permanent/replacement standards must comply with the NERC requirements for regional reliability standards including removal of the RMS Sanction Table and use of the NERC sanction table for enforcement purposes and address the directives in the June 8, 2007 FERC order.

The Triage Committee (Standards Request Routing Committee) identified the WECC Operating Committee (OC) as the lead Standing Committee for the Tier One Standards, and the OC has assigned the Unscheduled Flow Administrative Subcommittee (UFAS) to take the lead on project WECC-0024/Unscheduled Flow Relief developing a permanent/replacement regional reliability standard. A standards drafting team (SDT) was formed for project WECC-0024/Unscheduled Flow Relief. Upon approval by FERC, WECC regional reliability standards become part of the body of the NERC Reliability Standards and will be enforced through monetary sanctions in the United States. The SDT is posting a draft standard for comment on the WECC website.

The UFAS SDT reviewed the recently approved standard and considered all comments received, including comments submitted by FERC and NERC. The SDT discussed several approaches to the task. During discussions, several aspects of the current plan were discussed and recommendations were made to modify the standard to make it more effective at mitigating Unscheduled Flow and enhance the reliable operation of the Western Interconnection. Results of a straw poll taken at the June, 2007 WECC OC and MIC meetings indicated support for a shift of responsibility in the Contributing Schedule curtailment portion of unscheduled flow mitigation. As a result, the SDT decided to implement a change in responsibility for initiating schedule curtailments.

Qualified Path Unscheduled Flow Relief Criterion in RMS and IRO-STD-006-0:
The Qualified Path Unscheduled Flow Relief responsibilities do not conform to the current NERC functional model. This RMS Criterion and currently-approved standard assigns Load Serving Entities (LSE's) the responsibility of curtailing schedules to reduce unscheduled flow, a reliability function that the NERC functional model now assigns to

Reliability Coordinators and Balancing Authorities. In the functional model, NERC holds that LSEs should not be assigned responsibility for reliability. Therefore, the assignment of reliability functions to LSEs is not compatible with the NERC functional model or NERC Standard IRO-006. Additionally, the existing RMS and IRO-STD-006 standards place the sole responsibility for providing relief upon the LSE without providing the ability for the LSE to ensure compliance (e.g. the Balancing Authority does not have to approve a curtailment request made by the LSE). The LSE through the webSAS program emulates a Reliability Coordinator. With the WebSAS tool, the LSE can only enter a curtailment, but this curtailment may be denied by a Balancing Authority. The LSE cannot ensure implementation of the requested reliability curtailments. When IRO-STD-006 was approved, FERC directed WECC to address these concerns in developing a permanent replacement reliability standard. (See paragraphs 71 and 72 in the FERC Order in Docket RR07-11-000.) For these reasons, the drafting team recommends that LSEs should not be assigned reliability functions such as curtailments. In the proposed IRO-006-WECC-1 standard, responsibility for initiating schedule curtailment is assigned to the Reliability Coordinators, and the responsibility for implementing the curtailments is assigned to Balancing Authorities. The proposed standard should improve the efficiency of the program including improved compliance, more certain Unscheduled Flow relief, and fewer complications associated with multiple entities taking partial responsibility for curtailment activity.

Explanation of <u>the Standard:</u>

The SDT essentially boiled the standard down to two Requirements and two Measures:

Explanation of REQUIREMENT 1:
Once the Transmission Operator calls upon the UFMP at a level that requires some degree of off-path tag curtailments, the Transmission Operator notifies its corresponding Reliability Coordinator (RC) that it is requesting Contributing Schedule curtailments. Upon determining the request is appropriate, the RC must utilize the webSAS software to initiate the required tag curtailments. Curtailments are envisioned to be based upon either the exact prescription of curtailments specified in the table of curtailment actions of the Unscheduled Flow Mitigation Plan (UFMP) or upon the order of highest transfer distribution factor tags curtailed first—a pre-selection of preferred option may be made by each Load Serving Entity. This means that the Unscheduled Flow Mitigation Plan (UFMP) will be administered just as it is today with the exception that, instead of over one hundred LSEs determining which tags to curtail, a single RC shall initiate schedule curtailments with a single command for all entities through the webSAS software.

Explanation of REQUIREMENT 2:
Once the Source and Sink Balancing Authorities receive Curtailment requests through their tagging systems, the Balancing Authorities' must actively approve the curtailment request; implement alternative actions that provide the Relief Requirement; or a combination thereof that collectively meets the Relief Requirement. This requirement does not change any part of the UFMP as today Balancing Authorities should actively approve all curtailment requests.

Explanation of MEASURE 1:
Requirement 1 is considered to be met if any RC in any of the Reliability Centers sends the command to initiate curtailments using the webSAS tool. The final state of the tags with pending curtailment requests are not at issue. The measure merely assures that the RC initiates the curtailment process.

Explanation of MEASURE 2:
Requirement 2 is considered to be met if each Sink Balancing Authority who has authority to approve or deny the curtailment requests, in fact, approves the curtailment requests or provides alternative action such as generation redispatch, phase-shifter operation, DC circulation, or some combination thereof. If the Balancing Authority does not implement a requested curtailment or alternative actions are not implemented, then Requirement 2 has not been met.

Discussion:

It is the intent of the UFAS SDT that the UFMP shall continue to be the WECC plan to mitigate Qualified Path unscheduled flow in the Western Interconnection and that the Plan continues to be implemented exactly as it is today with the one exception that the LSE no longer initiates the curtailments to their own tags. The reasons for this are several:

1. Most LSEs do not enjoy the level of choice as to which tags to curtail as had been envisioned when the webSAS tool was implemented,
2. LSEs who are not WECC members do not take the opportunity to register and, as a result, avoid the responsibility for the curtailments; this responsibility then defaults to the Sink Balancing Authority to initiate the cuts, putting the Balancing Authorities at an increased risk for incurring a violation,
3. LSEs have no control over whether the curtailments that they request are approved. The Standard now only requires that the responsible party – the RCs initiate a curtailment,
4. LSEs may retain some choice in determining which curtailments are enacted as UFAS intends to modify the webSAS tool to permit LSEs the option to select either (1) curtailments from highest Transfer Distribution Factors to lowest until compliance is reached, or (2) select curtailments of all contributing schedules as prescribed by the table of curtailment actions in the UFMP, with the latter as the default choice.

It is not the intent of the UFAS SDT to burden the RCs. Today when a Transmission Operator requests a step 4 or above curtailment, the RC is usually involved in making the decision since it is responsible for reliability. Requiring the RC to initiate the curtailment process allows the RC the opportunity to assess the request and override the request if necessary. If the RC takes no action, it is expected that the webSAS software will initiate curtailments automatically. This process will also minimize any further Balancing Authority action regarding curtailments.

The refinements implemented through the proposed IRO-006-WECC-1 standard should

1. Result in consistent curtailments at the proper level,
2. Remove the lack of action as an impediment to achieving the proper curtailments,
3. Relieve the LSEs of the burden of deciding which action should be taken, allowing them to spend their time initiating the scheduling of energy to replace that curtailment with schedules that either relieve the constrained path or are impact neutral,
4. Place the control of reliability actions back with reliability-trained personnel, and
5. Significantly reduce compliance auditing for LSEs and WECC Staff to determine compliance with the plan.

The USF SDT includes representatives from the RCs, Constrained Path Transmission Operators, and LSEs. The proposed standard has included input from these parties. We believe the proposed standard satisfies their concerns and has their support.

Members of the drafting team have held discussions with the webSAS vendor and believe the necessary software modifications to ensure implementation of this standard can be satisfied without undue burden on any party.

The USF SDT requests that your organization support the refinements to UFMP and recognize that the proposed standard improves the efficiency of the plan and more importantly, reliable operation of the Interconnection.

It is WECC's position that both the existing IRO-STD-006-0 Regional Reliability Standard and the proposed IRO-006-WECC-1 Regional Reliability Standard contain requirements that address items not included in NERC's IRO-006-4 Reliability Standard.

The following is a listing of each requirement of NERC's IRO-006-4 standard, identifying how these requirements apply or do not apply to WECC entities. Also provided is a summary of the requirements in the proposed IRO-006-WECC-1 Regional Reliability Standard, identifying why they address items not included in NERC's IRO-006-4 Reliability Standard. Excerpts from the current FERC-approved IRO-STD-006-0 Regional Reliability Standard, explaining what is actually required and how it is currently enforced are also provided below.

NERC comments/questions in blue.

Formatted: Font color: Blue

NERC IRO-006-4

The applicability section of NERC's IRO-006-4 Reliability Standard identifies RCs, TOPs, and BAs. Of the 5 requirements, the first four include specific requirements of the RC. Requirement 5 includes requirements of the RC and BA. None of the requirements identify anything that a TOP must do, even though the TOP is included in the Applicable Entities section.

Andy Rodriquez has clarified that while R1- R5 do not assign responsibilities to the TOP the TLR attachment to the standard establishes requirements for the TOP. The TLR procedure is enforceable.

Requirement 1
A Reliability Coordinator experiencing a potential or actual SOL or IROL violation within its Reliability Coordinator Area shall, with its authority and at its discretion, select one or more procedures to provide transmission loading relief. These procedures can be a "local" (regional, interregional, or sub-regional) transmission loading relief procedure or one of the following Interconnection-wide procedures:

This requirement requires the RC to select one or more procedures to provide transmission loading relief in instances where an RC is experiencing a potential or actual SOL or IROL. This requirement does NOT require the RC use any specific procedure, but only requires the RC to select one or more.
NERC clarifies that some of the procedures include requirements that action is taken if steps to provide relief have been exhausted beyond the local/sub-regional procedures.

The three sub-requirements of Requirement 1 identify the three existing interconnection-wide procedures. Sub-requirement R1.2 incorrectly identifies WECC Tier 1 Standard IRO-STD-006-0 as the WECC interconnection-wide procedure. It should identify the WECC Qualified Path Unscheduled Flow Procedure. This requirement, in its sub-requirements identifies the existing interconnection-wide procedures, but does not require the RC to select the interconnection-wide procedure.
Andy and the drafting team members (of the continent wide IRO-006 Project 2007-xx) will be discussing the current reference to the WECC IRO standard.

Requirement 2
The Reliability Coordinator shall only use local transmission loading relief or congestion management procedures to which the Transmission Operator experiencing the potential or actual SOL or IROL violation is a party.

This requirement does not apply to the Interconnection-wide procedure, only local procedures. The WECC USF is an interconnection-wide procedure so this requirement does not apply to the WECC USF procedure. Additionally, the WECC USF Procedure is only applicable to six qualified paths, which are operated by three different Transmission Operators. Therefore the only time a WECC RC can select this plan is if the potential or actual SOL or IROL is on one of the six qualified paths.

The TOP-007-WECC-1 standard references the WECC Major Transfer Paths. The referenced document (the link in the standard) indicates that there are 40 of these paths. These are the paths that the TOP must ensure to reduce PF in the case that they exceed SOL. The IR0-006-WECC-1 standard as stated above is applicable to only six qualified paths operated by three Transmission Operators.

Requirement 3
Each Reliability Coordinator with a relief obligation from an Interconnection-wide procedure shall follow the curtailments as directed by the Interconnection-wide procedure. A Reliability Coordinator desiring to use a local procedure as a substitute for curtailments as directed by the Interconnection-wide procedure shall obtain prior approval of the local procedure from the ERO.

The WECC USF Procedure does not require the RC to take any actions nor does it obligate the RC to provide relief. Therefore, this requirement is not applicable to WECC RCs.

Requirement 4
When Interconnection-wide procedures are implemented to curtail Interchange Transactions that cross an Interconnection boundary, each Reliability Coordinator shall comply with the provisions of the Interconnection-wide procedure.

As noted for Requirement 3, the WECC USF Procedure does not contain any requirements applicable to the RC. Therefore, this requirement is not applicable to WECC RCs either. The wording in this requirement appears to be specifically targeted at the RCs in the Eastern Interconnection or the Western RC if the event is initiated in the East.

Requirement 5
During the implementation of relief procedures, and up to the point that emergency action is necessary, Reliability Coordinators and Balancing Authorities shall comply with applicable Interchange scheduling standards.

This requirement is applicable to the RC and BA, but has no impact on nor is it related to the interconnection-wide procedure. It requires the BA and RC to comply with NERC standards INT-001, INT-003, and INT-004 during the implementation of the interconnection-wide

procedure. This means that BAs and RCs within WECC must comply with these three NERC INT standards during the implementation of the USF Procedure. WECC does not dispute this.

WECC IRO-006-WECC-1

Requirement 1
Upon receiving a request of Step 4 or greater (see Attachment 1-IRO-006-WECC-1) from the Transmission Operator of a Qualified Transfer Path, the Reliability Coordinator shall approve (actively or passively) or deny that request within five minutes.

The WECC USF Procedure does not contain any requirements applicable to the RC. Requirement 1 of IRO-006-WECC-1 requires the RC, as the entity responsible for the reliability of the interconnected system, to approve or deny a request for initiation of curtailments from one of the three Qualified Path Operators. The purpose of this requirement is to allow the RC to deny a request to initiate curtailments if the request does not meet the reliability levels set out by the procedure.

Requirement 2
The Balancing Authorities shall approve curtailment requests to the schedules as submitted, implement alternative actions, or a combination there of that collectively meets the Relief Requirement.

Because the old IRO-STD-006-0 included requirements applicable to the LSE, it was possible that a tag curtailing schedules could be submitted, but not approved, resulting in no reduction of the potential SOL or IROL. However, because of the way the standard is currently written, compliance is achieved. Automation now identifies the schedules to be curtailed, and upon approval by the RC, Requirement 2 of IRO-006-WECC-1 makes it mandatory for the BA to approve the tag, resulting in curtailments of contributing schedules or provide relief through another method.

Existing Standard Interpretation

NERC indicates that the WECC USF procedure is mandatory in the current approved Tier 1 standard because it is referenced in the language of the standard. However, a review of the measures and levels of non-compliance all pertain to actions taken by responsible entities, as requested by the Qualified Path TOP. The existing levels of non-compliance are all based on the amount of relief that was not provided, and have nothing to do with the sequential or actual implementation of the steps identified in the Qualified Path Unscheduled Flow Relief Procedure. Excerpts from the requirement of the existing IRO-STD-006-0 follow:

Requirement WR1
"members2/ shall comply with requests from (Qualified) Transfer Path Operators to take actions that will reduce unscheduled flow on the Qualified Path in accordance with the table entitled "WECC Unscheduled Flow Procedure Summary of Curtailment Actions," which is located in Attachment 1 of the Plan."

The first three steps of the table entitled "WECC Unscheduled Flow Procedure Summary of Curtailment Actions" are actions that must be implemented by the Qualified Path Operator. Steps 4 through 9 are steps that must be taken by applicable entities in response to a request from a Qualified Transfer Path Operator. As stated in the requirement, it is only steps 4 through 9 than can be requested by a Qualified Transfer Path Operator.

Measure M1

Responsible Entities shall take actions as requested by Qualified Transfer Path Operators that result in the specified amount of Unscheduled Flow Relief for the applicable Qualified Transfer Path. These actions include, but are not limited to, one or a combination of schedule curtailments, schedule increases, and operation of non-Qualified Controllable Devices.

The actions that FERC identifies as making the WECC procedure superior to the Eastern Interconnection TLR procedure are all actions that are taken by the Qualified Path Operator. The existing standard identifies only one requirement, which is for the Responsible Entity to provide Unscheduled Flow Relief as determined by the Plan. The Plan only determines relief requirements based on transactions, not coordinated operation of phase shifters or accommodation. Therefore, there is no measurement related to the language that NERC staff has pointed to related to the use of the controllable devices or any level of accommodation. While the NERC staff interpretation might be a more desirable position, it is not supported by the language in the existing standard, historical practice in the WECC or the interpretation of the drafting team that was tasked with re-writing the existing standard as ordered by FERC.

Summary

NERC standard IRO-006-4 requires the RC to select one or more procedures to relieve potential or actual SOLs and IROLs. It does not require an interconnection-wide procedure to be selected, but it identifies the three existing interconnection-wide procedures in place. It places certain limits on which procedures may be selected, and arguably may require the RC to adhere to provisions of the interconnection-wide procedure if the interconnection-wide procedure is selected (NOTE: The WECC procedure does not contain any requirements applicable to the RC), although R3 really only says that the RC must follow the curtailment requests of the Interconnection-wide procedure, not follow all steps of the interconnection-wide procedure..

WECC's proposed IRO-006-WECC-1 requires the RC to either approve or deny a request by a Qualified Path TOP (of which there are only 3) to initiate schedule curtailments in a reasonable timeframe, and requires the BA to implement curtailments (approve tags) or alternative actions to achieve the same relief.

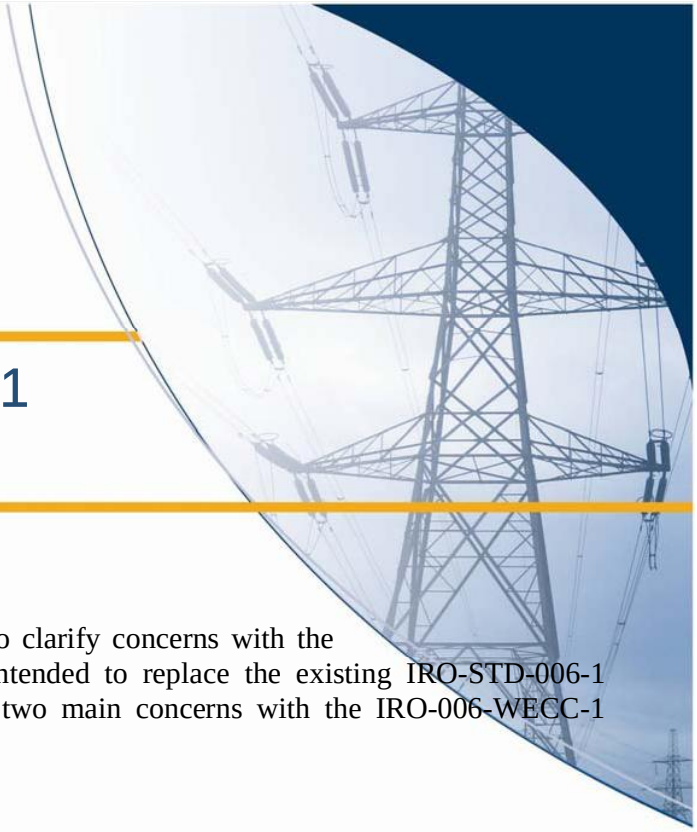
NERC's IRO-006-4 Reliability Standard requires RC's to select a plan. The WECC standard requires the RC to approve or reject a request for curtailment and the BA to implement the curtailments if approved by the RC. The WECC standard addresses items not covered in the NERC standard.

Taken from the UFAS Standard Drafting Team White Paper:

"In the proposed IRO-006-WECC-1 standard, responsibility for initiating schedule curtailment is assigned to the Reliability Coordinators, and the responsibility for implementing the curtailments is assigned to Balancing Authorities. The proposed standard should improve the efficiency of the program including improved compliance, more certain Unscheduled Flow relief, and fewer complications associated with multiple entities taking partial responsibility for curtailment activity"

As IRO-006-WECC-1 is proposed the RC does not initiate curtailments but rather responds to curtailment requests from the TOP. Two questions regarding

NERC
NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION



Questions on IRO-006-WECC-1

December 1, 2008

NERC appreciates the opportunity to work with WECC to clarify concerns with the proposed IRO-006-WECC-1 standard. This standard is intended to replace the existing IRO-STD-006-1 standard approved by FERC. NERC staff has identified two main concerns with the IRO-006-WECC-1 standard.

Question 1:
NERC understands by way of explanation that WECC uses TOP-007-WECC-1 to manage the transfer path power flow on the Major WECC Transfer Paths (using local and other relief procedures to ensure that power flows do not exceed SOL for more than 30 minutes). NERC also understands that IRO-006-WECC-1 is used to ensure that RC's are responding to curtailment requests by the TOPs on six of these transfer paths. NERC identified one path, Path Code 23, the APS Four Corners path that is not included in the list of Major Transfer Paths. This would mean that TOP-007-WECC-1 does not apply to this path and as such the TOP is not actively monitoring power flows and taking immediate action to relieve flow as to not exceed its SOL. Is there a gap that needs to be filled for this transmission path? Is it correct to interpret that curtailments on the other 34 paths not covered under IRO-006-WECC-1 would not provide relief?

Question 2:
The following is an excerpt taken from the UFAS Standard Drafting Team White Paper:

> "In the proposed IRO-006-WECC-1 standard, responsibility for initiating schedule curtailment is assigned to the Reliability Coordinators, and the responsibility for implementing the curtailments is assigned to Balancing Authorities. The proposed standard should improve the efficiency of the program including improved compliance, more certain Unscheduled Flow relief, and fewer complications associated with multiple entities taking partial responsibility for curtailment activity"

However, it is NERC's interpretation that the proposed IRO-006-WECC-1 standard does not require the RCs to initiate curtailments, but rather only respond to curtailment requests from the TOP. Based on previous discussion regarding TOP-007-WECC-1, and our reading of IRO-006-WECC-1, it is our understanding that the TOP initiates these schedule curtailments, not the RC. Is this correct? If not, please explain further (e.g., is this a function of the OATI webSAS tool, where the TOP makes the request but the RC actually "initiates" the curtailment by confirming the request?).

116-390 Village Blvd.
Princeton, NJ 08540
609.452.8060 | www.nerc.com

Secondly, what recourse does the TOP within WECC have if the RC denies the request for curtailment? Does the TOP have a wide-area view through webSAS, such that they are aware of other options if their requests are denied by an RC? If not, what steps would occur following the RC denial?

As discussed on the conference call on November 19, 2008 WECC will be preparing a paper that explains the interaction between the TOP-007-WECC-1 and IRO-006-WECC-1 standards. In particular, the paper is to include an explanation of the process flow of managing SOLs on the transfer paths in TOP-007-WECC-1 and for mitigating unscheduled flow on transfer paths in IRO-006-WECC-1. NERC looks forward to the paper as it may clarify these remaining concerns.

Interaction between TOP-007-WECC-1 and IRO-006-WECC-1

NERC's Concern

During the conference call on November 19, 2008 between members of the NERC staff and WECC, NERC identified a concern that the WECC proposed replacement standard IRO-006-WECC-1 removed a requirement for the Transmission Operator (TOP) to request relief through the WECC Qualified Path Unscheduled Flow Relief Procedure when a qualified transfer path exceeded or was close to exceeding a System Operating Limit (SOL). NERC interprets the existing interim WECC regional reliability standard, IRO-STD-006-0, as requiring such action by the TOP.

In response to this concern, WECC staff indicated that the requirements of another WECC regional reliability standard, TOP-STD-007-0 (interim approved Tier 1 standard), as well as the WECC proposed replacement regional reliability standard TOP-007-WECC-1, require the TOP to take actions to ensure that SOLs are not exceeded. WECC volunteered to prepare a paper that explains the interaction between the TOP-007-WECC-1 and IRO-006-WECC-1 regional reliability standards. In particular, this paper identifies the link between the process flow of managing SOLs on the transfer paths in TOP-007-WECC-1 and for mitigating unscheduled flow on qualified transfer paths in IRO-006-WECC-1.

Interaction between TOP-007-WECC-1 and IRO-006-WECC-1

WECC regional reliability standard TOP-007-WECC-1 includes a requirement that TOPs are responsible for keeping path flows and schedules at or below SOLs for the 40 paths identified in Attachment A, Table 2, of the existing interim standard and referenced in the proposed TOP-007-WECC-1 replacement regional reliability standard. TOPs, in coordination with the Reliability Coordinators, may select from several methods including but not limited to the following:

- On path schedule Curtailments
- Adjust controllable devices (e.g. phase shifters, series capacitors, FAC devices)
- WECC Reliability Coordinator Procedure RC-003-1
- Generation patterns adjustments
- DC circulation
- Local procedures
- The WECC Unscheduled Flow Mitigation Plan (UFMP) if the path experiencing the loading is a qualified path
- Emergency Transmission Overload Procedure
- Re-configure transmission
- Load Curtailment, including firm, DSM, or interruptible load.

TOP-007-WECC-1 contains real-time requirements for TOPs of the 40 major paths to keep flows at or below SOLs. When SOLs are exceeded, TOP-007-WECC-1 requires that TOPs take immediate action to reduce path flows to within limits. The period for the

path flow reduction shall not exceed 30 minutes from the time the path flow is greater than the SOL. The reason for the SOL being exceeded does not matter. Besides the scheduled flows on the path, additional flow may be caused by an outage, a change in load, or changes in generation patterns. In addition to these causes, additional flow caused by unscheduled, or circulating flow, from scheduled flows on other paths, has the ability to increase flow on the path, potentially leading to exceeding SOLs. These scheduled flows on other paths that cause circulating flow are often times beyond the control of the TOP of the path on which the SOLs are exceeded. When this happens, the TOP may have to implement more than one of the procedures listed above to comply with TOP-007-WECC-1.

The WECC UFMP includes the WECC Unscheduled Flow Reduction Procedure. Within the Unscheduled Flow Reduction Procedure is a section on Transfer Path Qualification. This section identifies qualifying factors a path must meet for that path to be considered a Qualified Path for purposes of the UFMP. One of these qualifying factors is that the path experienced at least 100 hours during the most recent 36 months where actual flow across the transfer path exceeded 97 percent of the maximum transfer limit and energy schedules were curtailed because of unscheduled flow.

There are currently six paths in the WECC that meet these qualifying requirements. The six Qualified Paths listed in the UFMP are all included or associated with paths identified as the 40 major paths referenced in TOP-007-WECC-1. If any of these six Qualified Paths exceed an SOL, TOP-007-WECC-1 requires that the TOP take immediate action to reduce the actual power flow across the path. The key point here is that it is TOP-007-WECC-1, not IRO-006-WECC-1, that requires the TOP to take actions to reduce flows to within SOLs.

Path 23 from the list of Qualified Paths is not included in Attachment A, Table 2, of TOP-007-WECC-1, but is operated in series with Path 22, which is included in the attachment. Arizona Public Service Company, Path Operator for Path 22 and Path 23, has indicated that the only time Path 23 is impacted is when the Four Corners Unit 5 is off line. In these limited instances, unscheduled flow becomes an issue on Path 23. However, in these situations, Path 23 is operated in series with, and is the limiting factor, for Path 22. Therefore, mitigation efforts for any potential overloads on Path 22 result in mitigation of any potential overloads on Path 23.

Because of the physical nature of the Bulk Electric System in the Western Interconnection, there are times when circulating flows, caused by schedules other than those on path schedules of the TOP, result in significant flows across these Qualified Paths eventually resulting in flows that exceed the SOLs. The TOP, to comply with TOP-007-WECC-1, must take actions to reduce these flows below SOLs. Off-path schedules that cause this unscheduled flow across the Qualified Paths are referred to as Contributing Schedules. In those situations where the TOP has taken action to reduce the flows on a Qualified Path (operation of controllable devices, accommodation, and coordinated operation of phase shifters) and yet, because of Contributing Schedules, the flows are still near or exceeding the SOLs, IRO-006-WECC-1 requires curtailment of

Contributing Schedules or provision of comparable relief through other means, as identified in the Unscheduled Flow Reduction Procedure, so that the TOP of the Qualified Path can keep the actual flow within the SOLs.

Implementation of UFMP is one of the options available to the TOP to prevent potential violations of TOP-007-WECC-1. If the TOP is able to take other actions to keep actual flows within SOLs, the TOP may not need or desire to utilize the UFMP. However, if after taking actions identified in the UFMP, the TOP is still experiencing significant flows on a Qualified Path, the TOP may initiate the UFMP to obtain relief from the Contributing Schedules, thus reducing the actual flows to within SOLs. It is not absolutely necessary that the TOP of a Qualified Path implement the UFMP to manage flows to within SOLs to comply with TOP-007-WECC-1. However, if the TOP chooses the UFMP as one of the alternatives to manage flows, the requirements of IRO-006-WECC-1 make it mandatory for entities with Contributing Schedules to curtail these schedules, upon approval by the RC, to provide the necessary relief.

A TOP does not have to wait until a SOL is exceeded to use the Unscheduled Flow Reduction Procedure in the UFMP. A TOP may implement the UFMP procedures once actual flow across the qualified path reaches or exceeds 95% of the SOL.

When the TOP of a qualified path determines that the UFMP is one of the preferred flow reduction solutions, it then follows the steps contained in the UFMP. The procedure in the UFMP contains both current hour adjustments and next hour adjustments as follows:

Current hour adjustments--

Step 1: Adjust on path controllable devices to reduce path flow.
Step 2: Curtail on-path schedules so that total on-path schedules are at least the greatest of 50 MW or 10% below the SOL.
Step 3: The controllable device owners operate their controllable device in a coordinated manner to reduce unscheduled flow (USF).

Next hour adjustments (Process to be followed upon implementation of IRO-006-WECC-1) –

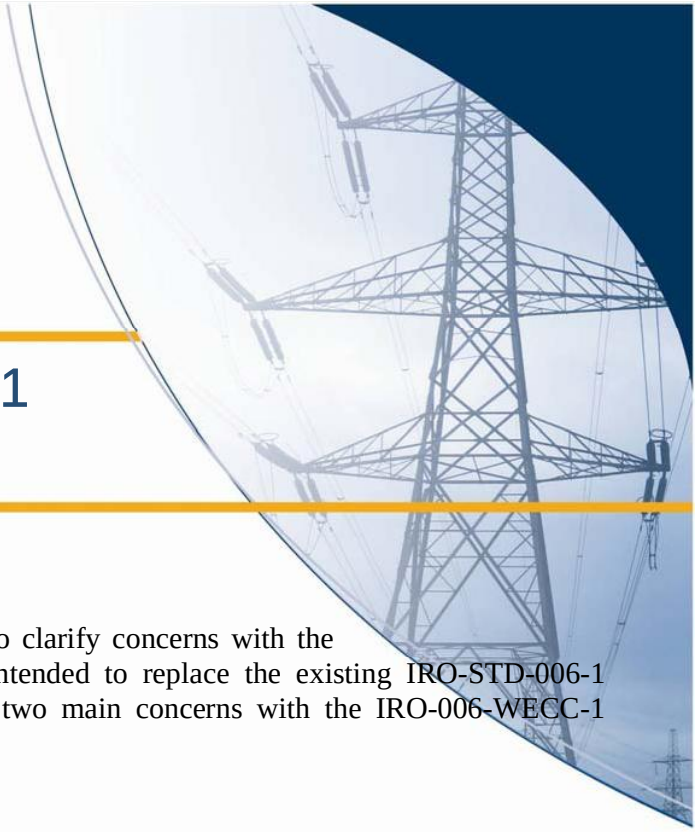
Step 4 or higher off path schedule curtailments

The TOP submits a request to its Reliability Coordinator (RC) for off-path schedule curtailments per Steps 4 through 9 in the UFMP. The TOP submits its request through the OATI webSAS tool to the RC. Requirement 1 of IRO-006-WECC-1 requires the RC to approve or deny the request using the webSAS tool. Unless the RC denies the request for reliability reasons, the webSAS tool, through preprogrammed algorithms, determines the curtailment amount for each of the approved steps and automatically submits the schedule curtailments. Requirement 2 of IRO-006-WECC-1 requires Balancing Authorities to approve curtailment requests to the schedules as submitted, implement

alternative actions, or a combination there of that collectively meets the relief requirement. These curtailments are implemented during the next operating hour.

Transmission Operators are responsible for complying with TOP-007-WECC-1. When flows exceed SOLs, the Western Interconnection reliability may be at risk. Compliance with TOP-007-WECC-1 and other NERC reliability standards is most critical. IRO-006-WECC-1, on the other hand, contains mandatory requirements for implementing the part of the UFMP pertaining to curtailment of off-path schedules. Mandatory enforcement of IRO-006-WECC-1 provides entities with the necessary motivation to curtail off-path schedules and adjust generation to prevent and/or reduce qualified path overloads, thus facilitating compliance with TOP-007-WECC-1. If implementing the UFMP, including IRO-006-WECC-1, does not achieve the reduction in actual flow across a path, the TOP is still obligated to take actions to reduce the actual flows to within SOLs in order to comply with the requirements of TOP-007-WECC-1.

NERC
NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION



Questions on IRO-006-WECC-1

December 1, 2008

NERC appreciates the opportunity to work with WECC to clarify concerns with the proposed IRO-006-WECC-1 standard. This standard is intended to replace the existing IRO-STD-006-1 standard approved by FERC. NERC staff has identified two main concerns with the IRO-006-WECC-1 standard.

Question 1:
NERC understands by way of explanation that WECC uses TOP-007-WECC-1 to manage the transfer path power flow on the Major WECC Transfer Paths (using local and other relief procedures to ensure that power flows do not exceed SOL for more than 30 minutes). NERC also understands that IRO-006-WECC-1 is used to ensure that RC's are responding to curtailment requests by the TOPs on six of these transfer paths. NERC identified one path, Path Code 23, the APS Four Corners path that is not included in the list of Major Transfer Paths. This would mean that TOP-007-WECC-1 does not apply to this path and as such the TOP is not actively monitoring power flows and taking immediate action to relieve flow as to not exceed its SOL. Is there a gap that needs to be filled for this transmission path? Is it correct to interpret that curtailments on the other 34 paths not covered under IRO-006-WECC-1 would not provide relief?

WECC Reply:

Due to the Bulk Electric System configuration in the Four Corners area, there is not a gap that needs to be filled for this path. The Transmission Operator is responsible for managing each transfer path's power flow. If a Transmission Operator requests the curtailment of off-path schedules, Requirement 1 of IRO-006-WECC-1 requires the Reliability Coordinator to approve or deny the request (please see document explaining the Interactions between TOP-007 –WECC-1 and IRO-006-WECC-1 for further explanation). The RC's opportunity to deny the request is intended to prevent off-path schedule curtailments from causing other reliability problems of which the TOP may not be aware. This refinement to the IRO-006-WECC-1 standard aligns with the NERC functional model.

Path 23 is comprised of the 345/500 kV transformer at the Four Corners Substation. With all elements in service at the Four Corners substation, the SOL from Four Corners to Arizona is defined by elements in Path 22, not the transformer comprising Path 23. Elements of Path 22 include the two Four Corners-Cholla 345kV lines and the Four Corners-Moenkopi 500kV line. Flow across Path 23 is not significantly impacted by unscheduled flow under normal system conditions, nor is it identified as one of the 40 major paths in TOP-007-WECC-1. The only system condition for which Path 23 may require relief per the Unscheduled Flow Mitigation Plan (UFMP) is when the Four Corners Generating Unit #5 is out of service. Unit #5 is connected

to the 500kV bus. During instances when this generator is out of service, Path 23 then becomes a subset of Path 22. The 345/500 kV transformer at the Four Corners Substation becomes one of Path 22's limiting elements and defines the Four Corners-Moenkopi 500 kV portion of the Path 22 SOL because it is now in series with the Four Corners-Moenkopi 500 kV line. The Transmission Operator for Path 22 is still required to comply with TOP-007-WECC-1. Therefore, there is no gap that needs to be filled for Path 23. In addition, the Transmission Operator is required to comply with all other NERC and WECC reliability standards.

The Transmission Operators for the other 34 paths identified in TOP-007-WECC-1 may not request unscheduled flow relief unless the Transmission Operators go through the process to qualify their paths per the UFMP (see the qualification section of the UFMP). The Transmission Operators for these 34 paths will use other local and WECC procedures to comply with the requirements of TOP-007-WECC-1.

Question 2:
The following is an excerpt taken from the UFAS Standard Drafting Team White Paper:

> "In the proposed IRO-006-WECC-1 standard, responsibility for initiating schedule curtailment is assigned to the Reliability Coordinators, and the responsibility for implementing the curtailments is assigned to Balancing Authorities. The proposed standard should improve the efficiency of the program including improved compliance, more certain Unscheduled Flow relief, and fewer complications associated with multiple entities taking partial responsibility for curtailment activity"

However, it is NERC's interpretation that the proposed IRO-006-WECC-1 standard does not require the RCs to initiate curtailments, but rather only respond to curtailment requests from the TOP. Based on previous discussion regarding TOP-007-WECC-1, and our reading of IRO-006-WECC-1, it is our understanding that the TOP initiates these schedule curtailments, not the RC. Is this correct? If not, please explain further (e.g., is this a function of the OATI webSAS tool, where the TOP makes the request but the RC actually "initiates" the curtailment by confirming the request?).

WECC Reply:

Your understanding is correct. The RC does not actually initiate the curtailments, but rather, approves the TOP's request for curtailment(s). When a Transmission Operator submits a request to the RCs for off-path schedule curtailments per the UFMP, the TOP submits those requests to the RC through the OATI webSAS tool. Requirement 1 of IRO-006-WECC-1 requires the RC to approve or deny the request using the webSAS tool. Unless the RC denies the request for reliability reasons, the webSAS tool, through preprogrammed algorithms, identifies the off-path schedules to curtail and submits those curtailments to Balancing Authorities, Purchasing Selling Entities, Generator Operators, and Transmission Operators identified on the tags.

Secondly, what recourse does the TOP within WECC have if the RC denies the request for curtailment? Does the TOP have a wide-area view through webSAS, such that they are aware of other options if their requests are denied by an RC? If not, what steps would occur following the RC denial?

WECC Reply:

The RC has the wide-area view not the TOP. Transmission Operators are responsible for managing each transfer path's power flow and have several options per WECC's procedures. When a Transmission Operator requests the curtailment of off-path schedules, the Reliability Coordinator (RC) may deny the request for reliability reasons. If the RC denies a curtailment request, the Transmission Operator in coordination with the RC would then follow one of the other WECC or local procedures for reducing path flow. The Transmission Operator is responsible for complying with all related NERC and WECC reliability standards.

As discussed on the conference call on November 19, 2008 WECC will be preparing a paper that explains the interaction between the TOP-007-WECC-1 and IRO-006-WECC-1 standards. In particular, the paper is to include an explanation of the process flow of managing SOLs on the transfer paths in TOP-007-WECC-1 and for mitigating unscheduled flow on transfer paths in IRO-006-WECC-1. NERC looks forward to the paper as it may clarify these remaining concerns.

See attached White Paper addressing these topics.

Exhibit D – Standard Drafting Team Roster

Drafting Team IRO-STD-006

FIRST_NAME	LAST_NAME	COMPANY
Brenda	Anderson	Bonneville Power Administration
John	Cummings	Northwestern Energy
Paul	Humberson	Western Area Power Administration WACM
Tom	Isham	Arizona Public Service Company
Ken	Wilson	WECC
David	Lemmons	Public Service Company of Colorado
David	Lunceford	California Independent System Operator
Phillip	O'Donnell	Sacramento Municipal Utility District
Ken	Otto	Western Area Power Administration
Paul	Rice	WECC
Richard	Salgo	Sierra Pacific Resources, Inc.
Jaison	Tsikirai	PacifiCorp West
Curtis	Winterfeld	Deseret G&T
Chuan-Hsier	Wu	Los Angeles Department of Water and Power