

NERC RELIABILITY STANDARD FAC-010-1
“Determine Facility Ratings, System Operating Limit
and Transfer Capabilities”
Supporting Document for WECC Regional Difference

Introduction

WECC is requesting an Interconnection-wide Regional Difference to be applied to WECC only. In accordance with the NERC Reliability Standards Process Manual (page 21), which states:

“A Regional Standard that is proposed to be made a NERC Reliability Standard shall be considered during the NERC standards process in accordance with the Criteria for Regional Standards and Regional Differences section below. These criteria provide that:

- Interconnection-wide Regional Standards are presumed to be valid, and there is a burden of proof to demonstrate otherwise in accordance with the stated criteria”

Specifically, “proposals for Regional Standards or Regional Differences that are intended to apply on an **Interconnection-wide basis** shall be presumed to be valid and included in a NERC Reliability Standard unless there is a clear demonstration within the NERC standards process that the proposed Regional Standard or Regional Difference:

- Was not developed in a fair and open process that provided an opportunity for all interested parties to participate;
- Would have a significant adverse impact on reliability or commerce in other Interconnections;
- Fails to provide a level of reliability of the bulk electric system within the Interconnection such that the Regional Standard would be likely to cause a serious and substantial threat to public health, safety, welfare, or national security; or
- Would create a serious and substantial burden on competitive markets within the Interconnection that is not necessary for reliability.”

The WECC Interconnected System

The Western Electricity Coordinating Council (WECC) is the largest and most diverse of the ten regional councils of the North American Electric Reliability Council (NERC)¹. The WECC encompasses the synchronously operated electric grid in the western part of North America (the Western Interconnection²). The geographic area covered by WECC is nearly 1.8 million square miles and includes parts of Montana, Nebraska, New Mexico, South Dakota, Texas, Wyoming, and Mexico and all of Arizona, California, Colorado, Idaho, Nevada, Oregon, Utah, Washington and the Canadian provinces of British Columbia and Alberta. The only connections to other interconnected systems are with the Mid-Continent Area Power Pool (MAPP) and Southwest Power Pool (SPP) Regions through back-to-back DC tie lines. This enables the synchronous operations of the Western Interconnection to be isolated from other Interconnected Systems.

¹ <http://www.nerc.com>

² http://www.wecc.biz/maps_diagrams/nerc_int.pdf

WECC and the nine other regional reliability councils were formed due to national concern regarding the reliability of the interconnected bulk power systems, the ability to operate these systems without widespread failures in electric service, and the need to foster the preservation of reliability through a formal organization. Western Systems Coordinating Council (WSCC) was formed with the signing of the WSCC Agreement on August 14, 1967 by 40 electric power systems. The WECC was formed on April 18, 2002, by the merger of WSCC, Southwest Regional Transmission Association (SWRTA), and Western Regional Transmission Association (WRTA).

Membership in WECC is voluntary and open to major transmission utilities, transmission dependent utilities, and independent power producers/ marketers. In addition, affiliate membership is available for power brokers, environmental organizations, state and federal regulatory agencies, and any organization having an interest in the reliability of interconnected system operation or coordinated planning.

WECC's Role

WECC continues to be responsible for coordinating and promoting electric system reliability as had been done by WSCC since its formation. In addition to promoting a reliable electric power system in the Western Interconnection, WECC will support efficient competitive power markets, assure open and non-discriminatory transmission access among members, provide a forum for resolving transmission access disputes, and provide an environment for coordinating the operating and planning activities of its members as set forth in the WECC bylaws. WECC's interconnection-wide focus is intended to complement current efforts to form Regional Transmission Organizations (RTO) in various parts of the West.

WECC's Regionally Specific Standards have been developed through a fair and open process

WECC member systems have long recognized the many benefits of interconnected system operation. During the mid 1960s, expansion of interconnecting transmission lines among systems in the western United States and western Canada resulted in the complete interconnection of the entire WECC region. As this expansion was taking place, systems generally adopted the Operating Guides of the North American Power Systems Interconnection Committee (NAPSIC) to promote consistent operating practices within the region. NAPSIC later became the NERC Operations Committee.

WECC has a formal, open process by which WECC Standards can be developed or modified as detailed in a document entitled, "Process For Developing and Approving WECC Standards"³. This is a previous Process of Western Systems Coordinating Council (WSCC) that has been adopted for use by WECC pursuant to the WECC Bylaws, Section 2.4, Transition. This document explains the process that WECC has established for announcing, developing, revising, and approving WECC Standards. WECC Standards include WECC Operating, Planning, and Market Interface Policies, Procedures, and Criteria, and their associated measurements for determining compliance. The process involves several steps:

³ http://www.wecc.biz/documents/policy/WECC_Relibility_Criteria_pdaws_802.pdf

- Public notification of intent to develop a new Standard, or revise an existing Standard before a wide audience of all “interested and affected parties.
- Subcommittee drafting stage.
- Posting of draft for public comment.
- Subcommittee review of all comments and public posting of decisions reached on each comment.
- WECC Market Interface Committee, Operating Committee, or Planning Coordination Committee approval of proposed Standard.
- Appeals Committee resolution of any “due process” or “technical” appeals.
- WECC Board of Directors (Board) approval of proposed Standard.

The process for developing and approving WECC Standards is generally based on the Standard-making procedures used by the American National Standards Institute (ANSI), the Institute of Electrical and Electronics Engineers (IEEE), and the American Society of Mechanical Engineers (ASME).

The WECC Regional Difference proposed for Standard 600 can be found in the current version of the NERC/WECC Planning Standards⁴. This current version of the WECC elements in these standards is the result of an intensive review of the WECC Standards in 2001 and 2002, using the above-described procedure.

WECC Regional Difference is not expected to adversely impact Reliability or commerce in other Interconnections

As mentioned above, the synchronous operations of the WECC Interconnected System are isolated from all other Interconnected Systems in North America. Therefore, WECC’s Regional Difference is not expected to impact Reliability or Commerce in other Interconnections.

WECC Regional Difference is expected to provide a level of reliability of the bulk electric system within the Interconnection that is adequate to protect health, safety, welfare, or national security

The WECC Regional Difference requested would add performance requirements to NERC Planning Standard 600 when establishing System Operating Limits to include selected disturbances, which could result in multiple contingencies. Therefore, WECC’s requested Regional Difference would result in criteria that are more stringent than the requirements set forth in NERC Standard 600. Thus, WECC Regional Difference is expected to provide a level of bulk electric system reliability that is adequate to protect public health, safety, welfare and national security.

⁴ http://www.wecc.biz/committees/PCC/RS/documents/WECC-NERC_Planning%20Standards_4-10-03.pdf. To develop the WECC Regional Difference, the relevant portions of the NERC/WECC Planning Standards have been reformatted to fit the format of Standard 600.

WECC Regional Difference would not create a serious and substantial burden on competitive markets within the Interconnection that is not necessary for reliability.

The Regional Difference being requested by WECC has been part of the existing WECC Reliability Criteria⁵, which have been developed and modified through the due process described above. The WECC Regional Difference is based not only on theoretical analyses, but also on operating experience and lessons learned through past disturbances. Therefore, it would not have a significant adverse impact on competitive markets within WECC that is not necessary for reliability.

⁵ http://www.wecc.biz/documents/policy/WECC_Reliability_Criteria.pdf