

136 FERC ¶ 61,020
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Jon Wellinghoff, Chairman;
Marc Spitzer, Philip D. Moeller,
John R. Norris, and Cheryl A. LaFleur.

Western Electricity Coordinating
Council

Docket No. IN11-1-000

ORDER APPROVING STIPULATION AND CONSENT AGREEMENT

(Issued July 7, 2011)

1. The Commission approves the attached Stipulation and Consent Agreement (Agreement) between the Office of Enforcement (Enforcement), the staff of the North American Electric Reliability Corporation (NERC) and the Western Electricity Coordinating Council (WECC). This order is in the public interest because it resolves on fair and reasonable terms an investigation of the Pacific Northwest Security Coordinator (PNSC), WECC's predecessor, conducted by Enforcement, the Commission's Office of Electric Reliability and NERC staff into possible violations of Reliability Standards associated with a Bulk Electric System disturbance in Utah on February 14, 2008. WECC agreed to pay a civil penalty of \$350,000 to be divided equally between the United States Treasury and NERC.

2. WECC also agreed to commit to a compliance plan to undertake specific reliability enhancement measures including improving its training programs and procedures to ensure that its Reliability Coordinators understand their responsibility to: direct Balancing Authorities within WECC to comply with the Disturbance Control Standard, BAL-002-0, Requirement R4; issue Energy Emergency Alerts; and issue proper directives. WECC will also make semi-annual compliance reports to Enforcement and NERC staff for a period of up to two years.

I. Background

3. WECC is a not-for-profit company incorporated in Utah. At the time of the disturbance, WECC funded three Reliability Coordination Centers in the Western Interconnection, including PNSC in Vancouver, Washington. WECC also established

policies for these centers. PNSC operated as the regional Reliability Coordinator in the Pacific Northwest pursuant to a Security Plan approved by WECC's Board of Directors. As a Reliability Coordinator, PNSC had the responsibility and authority for the reliable operation of the Bulk Power System within the PNSC Reliability Coordinator Area.

4. WECC assumed the Reliability Coordinator functions from PNSC on January 1, 2009. In the transfer of those functions, WECC expressly assumed PNSC's obligations and liability related to PNSC's Reliability Coordination function responsibilities, including specifically all financial responsibility for any penalties levied as a result of PNSC's actions or inactions during the disturbance of February 14, 2008. Also, as the Regional Entity, WECC enforces the Reliability Standards within the United States portion of the Western Interconnection. WECC's enforcement responsibility is independent of WECC's Reliability Coordinator functions and is not at issue in this investigation.

5. The February 14, 2008 disturbance occurred in the PacifiCorp East Balancing Authority Area (PacifiCorp East) which on that date was within the PNSC Reliability Coordinator Area. The disturbance originated when a "fault" (short circuit) occurred on a transformer at PacifiCorp's Huntington generation plant in Utah. The fault produced an immediate loss of approximately 2,800 MW of generation across the PacifiCorp East Balancing Authority Area and, later, PacifiCorp's shedding of approximately 183 MW of firm load.

6. Immediately following the start of the February 14 disturbance, at 09:16 Mountain Standard Time, PacifiCorp East's Area Control Error (ACE) was significantly negative: approximately -2,400 MW – four times PacifiCorp's most severe possible single contingency; that is, four times larger than the largest single failure of a Bulk Power System component in PacifiCorp East. ACE is the measure of the power balance on the interties between Balancing Authority Areas. A significant, continuing negative ACE means a Balancing Authority is leaning on the Interconnection by using the resources from other Balancing Authorities to maintain its own operations. The Disturbance Control Standard, BAL-002-0, R4, required PacifiCorp to restore its ACE within 15 minutes. At 09:44, the PNSC Reliability Coordinator directed PacifiCorp to restore its ACE.

7. PacifiCorp's ACE did not return to zero until 10:00, 44 minutes after PacifiCorp's ACE became negative, when power purchases ramped in. Also, at 10:00, the Reliability Coordinator issued an Energy Emergency Alert-2 (EEA-2), which notifies entities in the Interconnection that a Balancing Authority's load management procedures are in effect. After a request from PacifiCorp, the Reliability Coordinator effectively withdrew the EEA-2 by issuing an EEA-0, which indicates normal operations.

8. At 10:15, PacifiCorp's ACE again fell, as reserves it was receiving from the Northwest Power Pool reserve sharing group automatically terminated at the end of one hour. At 10:18, PacifiCorp's ACE declined to -752 MW, prompting PacifiCorp to make a second request to acquire reserves from the Northwest Power Pool. A PacifiCorp operator reduced this support erroneously believing that the second request was not permitted under the reserve sharing rules. At 10:44, PacifiCorp initiated firm load shedding to address its ACE deficiency. At 11:00, PacifiCorp's ACE returned to zero as additional power purchases ramped in, which allowed PacifiCorp to restore load.

II. Applicable Reliability Standards

9. On March 16, 2007, the Commission approved the Reliability Standards at issue in this matter,¹ which had been submitted by NERC, pursuant to section 215 of the Federal Power Act.² These standards became mandatory and enforceable within the contiguous United States on June 18, 2007.

10. The Interconnection Reliability Operations and Coordination (IRO) group of Reliability Standards detail the responsibilities and authorities of a Reliability Coordinator and are intended to facilitate a Reliability Coordinator's ability to perform its responsibilities and ensure the reliable operation of the interconnected grid.³ The Emergency Procedures (EOP) group of Reliability Standards addresses preparation for emergencies and necessary actions during emergencies and system restoration.⁴ The Communications (COM) group of Reliability Standards requires, among other things, that operating personnel carry out effective communications.⁵

III. Investigation

11. In response to the disturbance, in coordination with NERC staff, Commission staff initiated a non-public, preliminary investigation into the cause and events surrounding the disturbance. At the conclusion of the investigation, Enforcement and NERC conclude that PNSC violated nine requirements of five Reliability Standards.

¹ *Mandatory Reliability Standards for the Bulk-Power System*, Order No. 693, FERC Stats. & Regs. ¶ 31,242 (2007).

² 16 U.S.C. § 824o (2006).

³ *Mandatory Reliability Standards for the Bulk-Power System*, Order No. 693, FERC Stats. & Regs. ¶ 31,242 (2007) at P 888.

⁴ Order No. 693 at P 541.

⁵ Order No. 693 at P 472.

12. Enforcement and NERC conclude that PNSC violated Reliability Standards IRO-005-1, Requirement R11; IRO-005-1, Requirement R8; EOP-002-2, Requirement R1; IRO-001-1, Requirement R3, and IRO-005-1, Requirement R13, related to PNSC's inadequate response to the February 14, 2008 disturbance. These Reliability Standards apply to a Reliability Coordinator's response to a disturbance and describe the parameters that a Reliability Coordinator must monitor and address to ensure the reliability of the Reliability Coordinator Area and the Interconnection. Area Control Error, or ACE, is one of those parameters; it is a key measurement that indicates whether a Balancing Authority Area is operating in a reliable state. A Balancing Authority's significant, continuing negative ACE means that the Balancing Authority is leaning on the Interconnection by using the resources from other Balancing Authorities to maintain its own operations. Enforcement and NERC conclude that, when PacifiCorp did not return its negative ACE to zero in the time period specified in the Disturbance Control Standards, PNSC failed to respond in the manner set forth by these Reliability Standards and thereby violated the requirements listed above.

13. Enforcement and NERC conclude that PNSC violated EOP-002-2, Requirement R8, because it did not initiate Energy Emergency Alerts properly during the disturbance. Enforcement and NERC concluded that the Reliability Coordinator failed to issue an EEA-2 alert, which states that a Balancing Authority's load management procedures are in effect, within a reasonable time after PacifiCorp shed interruptible load. Enforcement and NERC also concluded that PNSC later prematurely withdrew the alert.

14. Enforcement and NERC also conclude that PNSC violated COM-002-2, Requirement R2, because it did not use three-step communication (direct-repeat-acknowledge) in issuing a directive to PacifiCorp. After the Reliability Coordinator issued a directive and the PacifiCorp operator confirmed it, the Reliability Coordinator altered the directive making it non-definitive and did not obtain confirmation of the altered directive.

15. Enforcement and NERC also conclude that PNSC violated IRO-005-1, Requirement R12 because its Reliability Coordinators were not aware of a Special Protection System⁶ within its Reliability Coordinator Area, either through its modeling in PNSC's Real-Time Contingency Analysis tool or otherwise.

⁶ A Special Protection System is an "automatic protection system designed to detect abnormal or predetermined system conditions, and take corrective actions other than and/or in addition to the isolation of faulted components to maintain system reliability." NERC Glossary. In the Western Interconnection, most registered entities employ Remedial Action Schemes (RAS), which are defined by the NERC Glossary as Special Protection Systems.

16. Enforcement and NERC further conclude that PNSC violated IRO-002-1, Requirement R9, which requires a Reliability Coordinator to “have procedures in place to mitigate the effects of analysis tool outages.” PNSC did not have a procedure in place that addressed what a Reliability Coordinator should do when PNSC’s Real-Time Contingency Analysis tool did not function.

IV. Stipulation And Consent Agreement

17. Under the Agreement WECC agrees to pay a \$350,000 civil penalty. This amount is to be paid in a manner that reflects the dual nature of this investigation which both Commission staff and NERC staff conducted. Accordingly, the penalty shall be apportioned and paid equally between the United States Treasury and NERC. WECC does not admit or deny that its actions constituted violations of the Reliability Standards or that it committed any violations of the Reliability Standards.

18. In consideration of the appropriate sanction, Commission staff considered the serious nature of the disturbance and the risk it posed to the Western Interconnection. However, staff also considered WECC’s remedial efforts following the disturbance. As planned before the disturbance, WECC created two new reliability coordination centers, one in Vancouver, Washington and one in Loveland, Colorado, to serve the Western Interconnection. WECC also undertook several steps to improve its training and procedures to foster a “responsibility-to-act” culture, to address the issuance of Energy Emergency Alerts and to address the issuance of directives. Under the Agreement, WECC will continue to meet these commitments. WECC has also committed to improving its training and procedures with respect to IRO-005-0, R11, to ensure that its Reliability Coordinators understand their responsibility to timely and proactively direct Balancing Authorities within the Reliability Coordinator Area to comply with the Disturbance Control Standard. WECC shall also make semi-annual reports to Enforcement and NERC staff for one-year on its compliance with the agreement and the Reliability Standards, with the option of a second year of reporting at Enforcement and NERC’s discretion.

V. Determination Of The Appropriate Sanctions

19. We conclude that the penalties and other sanctions set forth in the Agreement are a fair and equitable resolution of this matter and are in the public interest, as they reflect the nature and seriousness of PNSC’s conduct, and recognize the company-specific considerations as stated above and in the attached Agreement. We also conclude that, under the specific circumstances of this case, the payment of a portion of the civil penalty to NERC reflects a balanced and sensible approach. We also conclude that the reliability enhancement measures set forth in the Agreement will enhance the reliability of the Bulk Electric System and are therefore also fair and in the public interest.

The Commission orders:

The attached Stipulation and Consent Agreement is hereby approved without modification.

By the Commission.

(S E A L)

Kimberly D. Bose,
Secretary.

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Western Electricity Coordinating Council) Docket No. IN11-1-000

STIPULATION AND CONSENT AGREEMENT

I. INTRODUCTION

1. Staff of the Office of Enforcement (Enforcement) of the Federal Energy Regulatory Commission (Commission), staff of the North American Electric Reliability Corporation (NERC), and the Western Electricity Coordinating Council (WECC) enter into this Stipulation and Consent Agreement (Agreement) to resolve a non-public investigation conducted by Enforcement and staff of the Office of Electric Reliability of the Commission pursuant to Part 1b of the Commission's regulations, 18 C.F.R. Part 1b (2010), and by NERC pursuant to the NERC Compliance Monitoring and Enforcement Program. The investigation examined possible violations of the NERC Reliability Standards¹ by the Pacific Northwest Security Coordinator (PNSC) related to its Reliability Coordination functions surrounding a disturbance on the Bulk Power System in the state of Utah on February 14, 2008. At that time, PNSC was one of three WECC-funded Reliability Coordination centers. Unless otherwise specified, capitalized terms in this Agreement have the meanings specified in the NERC Glossary of Terms Used in Reliability Standards (NERC Glossary).

II. STIPULATED FACTS

Enforcement, NERC and WECC hereby stipulate to the following:

A. Background

2. On February 14, 2008, an event occurred on the Bulk Power System in the PacifiCorp East Balancing Authority Area, which includes Utah, southeast Idaho, and western Wyoming and for which PacifiCorp is the Balancing Authority. The event originated when a "fault" (short circuit) occurred on a transformer at PacifiCorp's

¹ Section 215 of the Federal Power Act provides the Commission the authority to approve and enforce the Reliability Standards. 16 U.S.C. § 824o (2006); *see also* 18 C.F.R. § 40.2(a) (2011) (requiring compliance with the Reliability Standards).

Huntington generation plant in Utah. The fault produced an immediate loss of approximately 2,800 MW of generation across the PacifiCorp East Balancing Authority Area and, in due course, PacifiCorp's shedding of approximately 183 MW of firm load. In response to the event, Enforcement staff opened a non-public, preliminary investigation into the cause and events surrounding the outages and load shedding. Contemporaneously, NERC opened a parallel, non-public Compliance Violation Investigation. Commission staff and NERC coordinated their investigations.

3. WECC is a not-for-profit company incorporated in Utah. WECC is the Regional Entity, as defined by the Federal Power Act,² responsible for coordinating and promoting Bulk Power System reliability in the Western Interconnection. Since January 1, 2009, WECC has performed the Reliability Coordination function for the Western Interconnection. WECC is currently registered in the NERC compliance registry as a Reliability Coordinator. In performing the Reliability Coordination function, WECC has "the highest level of authority responsible for the reliable operation of the Bulk Electric System, has the Wide Area view of the Bulk Electric System, and has the operating tools, processes and procedures, including the authority to prevent or mitigate emergency operating situations in both next-day analysis and real-time operations."³ In that function, WECC also has an obligation to comply with applicable Reliability Standards.

4. At the time of the event, WECC funded three Reliability Coordination Centers in the Western Interconnection, including PNSC in Vancouver, Washington. WECC also established policies for these centers. WECC's funding agreement with PNSC provided for PNSC to operate as the regional Reliability Coordinator in the Pacific Northwest pursuant to a Security Plan approved by WECC's Board of Directors. PNSC was registered in NERC's Compliance Registry to perform the Reliability Coordination function with oversight over the PacifiCorp East Balancing Authority Area. WECC and PNSC were in discussions at the time of the event to transition PNSC's Reliability Coordinator functions to WECC.

5. These discussions flowed from the WECC Board of Directors approval in 2006 of the WECC Reliability Coordination Strategic Initiative. The goal of the initiative was to provide two Interconnection-wide reliability coordination centers separate from any host, thereby creating both complete independence of the Reliability Coordination function as well as redundancy of operations. The creation of two Reliability Coordination Centers would not only allow each center to "back up" the other but would also provide a

² Federal Power Act, 16 U.S.C. § 824o.

³ NERC Glossary.

common Energy Management System (EMS) platform and tools for the Reliability Coordinators. The WECC Board later accelerated the project from completion in 2009 to completion in 2008. In total, WECC invested approximately \$12 million in 2008 to appropriately staff and facilitate the Reliability Coordinator Centers, to create a model to function as a common view of the entire Western Interconnection, and to put in place EMS and IT support staff to enable the WECC Reliability Coordinators to take advantage of technology.

6. To implement the transition of the Reliability Coordination function from PNSC to WECC, on October 31, 2008, WECC and PNSC entered into an “Agreement to Transition Responsibilities of, Terminate Funding Agreement With, Indemnify, and Dissolve the Pacific Northwest Security Coordinator” (Transition Agreement). Under the Transition Agreement, PNSC’s Reliability Coordination function responsibilities transferred to WECC and, further, PNSC agreed to dissolve as a corporate entity. Under the Transition Agreement, WECC agreed to assume all of PNSC’s liabilities and to indemnify and hold harmless PNSC and its officers and directors from any liability related to PNSC’s activities. WECC expressly assumed PNSC’s obligations and liability related to PNSC’s Reliability Coordination function responsibilities, including specifically all financial responsibility for any penalties levied as a result of PNSC’s actions or inactions during the event of February 14, 2008.

7. The two new Reliability Coordination Centers commenced operations on January 1, 2009. WECC assumed the Reliability Coordinator functions as of that date. The EMS teams and supplemental Information Technology support personnel located at both Reliability Coordination Centers provide on-site support for the real-time operating systems, advanced applications, model updating and other Reliability Coordinator tools. They also are available for conducting studies and assisting the real-time Reliability Coordinators during system events. In addition, they can provide study support to entities operating in the Western Interconnection.

8. Prior to that commencement of operations, the WECC Reliability Coordination function underwent a NERC certification process in December 2008 which included a requirement-by-requirement review of every standard that is applicable to the Reliability Coordination function. NERC later also conducted a “spot check” of the WECC Reliability Coordinator Centers’ compliance with selected NERC CIP-002 to CIP-009 Critical Infrastructure Protection (CIP) reliability standards requirements in August 2009 during which the WECC Reliability Coordination function was found to be compliant with the reviewed requirements. In addition, in November 2009 NERC conducted an off-site spot-check review of WECC Reliability Coordinator Centers’ compliance with Reliability Standards EOP-006-1, FAC 013-1, IRO-014-1 and TOP-003-0. During the review, NERC did not identify any violations of these standards.

B. PNSC's Response on February 14, 2008

9. Several reliability standards apply to a Reliability Coordinator's response to an event.⁴ These standards set forth the parameters that a Reliability Coordinator must monitor and address to ensure the reliability of the Reliability Coordinator Area and the Interconnection. Area Control Error, or ACE, is one those parameters; it is a key measurement that indicates whether a Balancing Authority Area is operating in a reliable state. ACE is the measure of the power balance on the interties between Balancing Authority Areas and indicates whether a Balancing Authority is "leaning on the Interconnection." In normal operations, ACE is at or near zero. A significant, continuing negative ACE means a Balancing Authority is leaning on the Interconnection by using the resources from other Balancing Authorities to maintain its own operations.

10. Enforcement and NERC determined that five violations resulted from PNSC's response to the February 14, 2008 event. Specifically, Enforcement and NERC determined that in his response to the event on February 14, 2008, the PNSC Reliability Coordinator did not comply with the requirements regarding ACE restoration. Reliability Standard IRO-005-1, Requirement R11, requires a Reliability Coordinator to direct action to address a deficiency of ACE. IRO-005-1, R11, states: "The Reliability Coordinator shall identify sources of large Area Control Error that may be contributing to Frequency Error, Time Error, or Inadvertent Interchange and shall discuss corrective actions with the appropriate Balancing Authority... [and] shall direct its Balancing Authority to comply with [the Disturbance Control Standard]."⁵

11. Immediately following the start of the February 14 disturbance, at 09:16⁶, PacifiCorp's ACE was significantly negative: approximately -2,400 MW – four times PacifiCorp's most severe possible single contingency; that is, the largest single failure of a Bulk Power System component in PacifiCorp's Balancing Authority Area.

⁴ The requirements that Enforcement and NERC determined PNSC violated are listed in Attachment A.

⁵ Under the Disturbance Control Standard, BAL-002-0, Requirement R4, a Balancing Authority must "return its ACE to zero" within fifteen minutes following a Reportable Disturbance. Because PacifiCorp's ACE just prior to the disturbance was positive, it had to "return its ACE to zero." BAL-002-0, R4.1. For negative initial ACE values just prior to the Disturbance, the Balancing Authority must return ACE to its pre-Disturbance value.

⁶ All times herein unless otherwise stated are Mountain Standard Time (MST).

12. Given PacifiCorp's large ACE deficiency, Enforcement and NERC concluded that IRO-005-1, Requirement R11 required the Reliability Coordinator to direct PacifiCorp to restore its ACE. Enforcement and NERC concluded that the Reliability Coordinator quickly became aware of the scope and magnitude of the disturbance generally and the ACE deficiency specifically through routine monitoring. This awareness was furthered when the Reliability Coordinator was contacted by PacifiCorp at 09:19 with initial details of the incident, including that 2,600 MW of its local generation had been lost, and that PacifiCorp planned to resolve its ACE deficiency by calling upon 2,402 MW of reserves. The Reliability Coordinator was aware that the limitation for delivery of reserves to PacifiCorp, in unconstrained transmission conditions, was 1,600 MW. Enforcement and NERC concluded that the Reliability Coordinator should have immediately realized that PacifiCorp's reliance on the ~2,400 MW of reserves would not be viable to timely address its ACE deficiency. PacifiCorp's ACE did not in fact return to zero until 10:00, 44 minutes after PacifiCorp's ACE became negative. At that time, Enforcement and NERC found, PacifiCorp's new power purchases were ramping in and PacifiCorp continued to receive reserves through its reserve sharing, but it had no contingency reserves. At 10:15, PacifiCorp's ACE again fell, to approximately -515 MW as support it was receiving from reserve sharing automatically terminated at the end of one hour. At 10:18, PacifiCorp's ACE changed to - 752 MW, which is, again, greater than its most severe single contingency prompting PacifiCorp to acquire additional interim reserve sharing support. After reducing this support, at 10:44, PacifiCorp initiated firm load shedding to address its ACE deficiency. At 11:00, PacifiCorp's ACE returned to zero as additional power purchases ramped in.

13. Enforcement and NERC concluded that the ACE deficiency posed a risk of major harm to the reliability of the Western Interconnection. Enforcement and NERC determined that, given the magnitude of PacifiCorp's negative ACE after the disturbance began, the Reliability Coordinator should have directed PacifiCorp to take action to restore the system to address the ACE deficiencies. The circumstances faced by PacifiCorp warranted such action, according to Enforcement and NERC: PacifiCorp was receiving significant amounts of unscheduled energy from other Balancing Authorities, rendering them less reliable and putting the Interconnection at risk. Enforcement and NERC found that in these circumstances of a large ACE deficiency and PacifiCorp's reliance on reserves that were not fully deliverable, the Reliability Coordinator should have issued an immediate directive. Enforcement and NERC determined that, in any event, the Reliability Coordinator should have issued a directive immediately after the passage of the fifteen-minute deadline of the Disturbance Control Standard when PacifiCorp still had not restored its ACE. However, the Reliability Coordinator did not issue any directive until thirty-one minutes after the disturbance began.

14. Enforcement and NERC determined that PNSC violated other Reliability Standards because of its inadequate response to PacifiCorp's significant ACE deficiency.

Enforcement and NERC determined that PNSC violated IRO-005-1, Requirement R8, which requires the “Reliability Coordinator [to] monitor system frequency and its Balancing Authorities’ performance and direct any necessary rebalancing...to return to [Disturbance Control Standard] compliance.” The Reliability Coordinator did not direct PacifiCorp to recover its ACE until 09:46. Enforcement and NERC found that even this directive was insufficient because the Reliability Coordinator did not direct any specific rebalancing to return to Disturbance Control Standard compliance, as required by R8. Specifically, Enforcement and NERC determined that, once it was clear that PacifiCorp had no other viable options, the Reliability Coordinator should have directed PacifiCorp to shed firm load as a last resort. Enforcement and NERC also determined that PNSC violated IRO-001-1, Requirement R3 because of the Reliability Coordinator’s failure to act to ensure reliability. IRO-001-1, Requirement R3 requires a Reliability Coordinator to “have clear decision-making authority to act and to direct actions to be taken by” Balancing Authorities within its Reliability Coordinator Area “to preserve the integrity and reliability of the Bulk Power System.” Because the Reliability Coordinator did not direct any such actions, PNSC violated IRO-001-1, Requirement R3.

15. For similar reasons, Enforcement and NERC determined that PNSC violated EOP-002-2, Requirement R1 because the Reliability Coordinator on duty failed “to exercise specific authority to alleviate [the] capacity and energy emergenc[y]” faced by PacifiCorp.⁷ Enforcement and NERC determined that PacifiCorp was in a capacity and energy emergency condition on February 14, 2008 because it lost 2,800 MW of generation resources, curtailed most if not all of its entire interruptible load, and had an ACE more negative than -2,000 MW. Enforcement and NERC determined that because EOP-002-2 R1 obligates the Reliability Coordinator to exercise specific authority the Reliability Coordinator was required to direct PacifiCorp to take specific action to alleviate the emergency, but did not.

16. Enforcement and NERC determined that PNSC violated IRO-005-1, Requirement R13, which requires the Reliability Coordinator to ensure that Balancing Authorities “operate to prevent the likelihood that a disturbance, action, or non-action in [its] area will result in a SOL [System Operating Limit] or IROL [Interconnection Reliability Operating Limit] violation in another area.” PacifiCorp’s ACE deficiency meant that it was relying on the energy of other Balancing Authorities to maintain its own operations,

⁷ The event fell within the definition of an Emergency, which is “[a]ny abnormal system condition that requires automatic or immediate manual action to prevent or limit the failure of transmission facilities or generation supply that could adversely affect the reliability of the Bulk Electric System.” NERC Glossary of Terms Used in Reliability Standards.

including relying on Balancing Authorities outside the PNSC Reliability Coordinator Area. While this event did not result in an SOL or IROL exceedance in another balancing area, Enforcement and NERC determined that PacifiCorp's reliance on energy from other Balancing Authorities increased the reliability risk to these other Balancing Authorities, including the likelihood of an SOL or IROL exceedance.

17. Enforcement and NERC acknowledge that, during the February 14, 2008 event, the PNSC Reliability Coordinator on duty worked with PacifiCorp and other entities to address the System Operating Limit exceedances on four affected paths within 15 minutes, which alleviated one of the threats to the stability of the Western Interconnection. PNSC nonetheless failed within a reasonable time to direct specific actions to alleviate PacifiCorp's ACE deficiency.

C. Energy Emergency Alerts

18. Enforcement and NERC determined that PNSC committed one violation related to the issuance of Energy Emergency Alerts with respect to the February 14, 2008 disturbance. The Reliability Standards require the Reliability Coordinator to issue Energy Emergency Alerts to notify Balancing Authorities and Transmission Providers in its Reliability Coordinator Area about system conditions that affect reliability. Enforcement and NERC determined that PNSC violated EOP-002-2, Requirement R8 because the Reliability Coordinator failed to issue Energy Emergency Alerts when warranted. EOP-002-2, Requirement R8 requires the Reliability Coordinator to issue Energy Emergency Alerts according to the schedule set forth in the attachment to that standard. Enforcement and NERC determined that the system conditions in the PNSC Reliability Coordinator Area during the disturbance merited an Energy Emergency Alert under that schedule. Enforcement and NERC concluded that the Reliability Coordinator failed to issue an EEA-2 alert, which states that a Balancing Authority's load management procedures are in effect, within a reasonable time after PacifiCorp shed interruptible load at 09:20. The Reliability Coordinator instead waited until 10:00 to issue an EEA-2. Enforcement and NERC concluded that the Reliability Coordinator withdrew an Energy Emergency Alert prematurely when, a few minutes later, PacifiCorp requested the Reliability Coordinator to issue an EEA-0, resulting in the termination of the existing Energy Emergency Alert, even though PacifiCorp's internal reserves were zero. The Reliability Coordinator complied and issued an EEA-0 at 10:06. Enforcement and NERC concluded that this issuance signaled to those in the Reliability Coordinator Area that PacifiCorp's situation was normal when it was not. Enforcement and NERC further concluded that PacifiCorp's continued lack of internal reserves at that time contributed to its later ACE deficiency and resulting load shedding in the ten o'clock hour.

D. Communication Procedures

19. Enforcement and NERC found one violation regarding PNSC's communication procedures, determining that PNSC violated COM-002-2, Requirement R2 because during the emergency the Reliability Coordinator issued a directive that did not follow the required three-step communication process. COM-002-2, Requirement R2 requires a Reliability Coordinator to (1) "issue [a] directive[] in a clear, concise and definitive manner," (2) to "ensure the recipient of the directive repeats the information back correctly," and (3) to either (i) "acknowledge the response as correct" or (ii) "repeat the original statement..." Enforcement and NERC concluded that, on February 14, 2008, the Reliability Coordinator did not use the three-step communication process, direct-repeat-acknowledge, when issuing a directive to PacifiCorp. The following reflects a transcription of the Reliability Coordinator's directive:

Reliability Coordinator on Duty: So, let me get -- make it formal. This is [Full Name], PNSC. Security Coordinator and -- Reliability Coordinator -- and at this time, 8:46 [09:46 MST], I am issuing a directive to drop load to recover your ACE.

PacifiCorp: Okay, I understand you want me to drop load to cover my ACE.

Reliability Coordinator: Well, I want you to recover your ACE, and if the only option is to drop load, then we need to drop load.

PacifiCorp: Okay, will do, thanks, [First Name]. Bye.

Reliability Coordinator [simultaneously]: Okay.

Reliability Coordinator: Bye.

20. The Reliability Coordinator on duty issued a directive to shed load to recover PacifiCorp's ACE, but after the PacifiCorp employee repeated the directive, the Reliability Coordinator altered the directive instead of confirming it. Because the Reliability Coordinator did not confirm that the PacifiCorp employee repeated the directive correctly and because the Reliability Coordinator actually changed his directive, Enforcement and NERC concluded that the Reliability Coordinator did not issue a clear directive in violation of COM-002-0, Requirement R2. Enforcement and NERC also concluded that the Reliability Coordinator violated R2 because he did not acknowledge PacifiCorp's response or repeat the original directive. Thereafter, PacifiCorp did not shed firm load, which could have returned PacifiCorp's ACE to zero.

E. Situational Awareness

21. In the area of situational awareness, Enforcement and NERC determined that two violations occurred. First, Enforcement and NERC determined that PNSC violated IRO-005-1, Requirement R12. Requirement R12 of IRO-005-1 states that

Whenever a Special Protection System that may have an inter-Balancing Authority, or inter-Transmission Operator impact (e.g., could potentially affect transmission flows resulting in a SOL or IROL violation) is armed, the Reliability Coordinators shall be aware of the impact of the operation of that Special Protection System on inter-area flows.

Enforcement and NERC found that PNSC's modeling of the system in its Real Time Contingency Analysis tool at the time of the disturbance did not incorporate a Special Protection System⁸ that addressed the loss of the Custer-Monroe 500 kV lines in the Bellingham, Washington area. This conclusion was based on WECC's admission that this Special Protection System was not modeled. Without this Special Protection System incorporated into PNSC's Real Time Contingency Analysis Tool, Enforcement and NERC found that PNSC's Real Time Contingency Analysis Tool would produce erroneous results and therefore concluded that PNSC Reliability Coordinators were not aware of the true impact of the operation of the special protection scheme on inter-Balancing Authority or inter-Transmission Operator area flows and the reliability of the Bulk Power System.

22. Second, Enforcement and NERC determined that PNSC violated IRO-002-1, Requirement R9 because it lacked an adequate procedure to address an outage of its Real-Time Contingency Analysis Tool. IRO-002-1, Requirement R9 requires that each "Reliability Coordinator shall have procedures in place to mitigate the effects of analysis tool outages," such as the loss of its Real-Time Contingency Analysis Tool. Enforcement and NERC found that PNSC did not have a procedure in place that addressed what the Reliability Coordinator should do when PNSC's Real-Time Contingency Analysis tool did not function.

III. REMEDIES AND SANCTIONS

23. For purposes of settling any and all civil and administrative disputes arising from Enforcement's and NERC's investigation, WECC accepts the facts pertaining to PNSC, the WECC Reliability Coordination function and the events of February 14, 2008 as

⁸ A Special Protection System is an "automatic protection system designed to detect abnormal or predetermined system conditions, and take corrective actions other than and/or in addition to the isolation of faulted components to maintain system reliability." NERC Glossary. In the Western Interconnection, most registered entities employ Remedial Action Schemes (RAS), which are defined by the NERC Glossary as Special Protection Systems.

stipulated above, but neither admits nor denies Enforcement and NERC's determinations that the facts set forth herein constitute a violation by PNSC of the Federal Power Act, Commission rules or regulations or the NERC Reliability Standards. WECC has made a decision to avoid the time and expense of prolonged litigation and has chosen to enter into this settlement and accept the Reliability Enhancement Measures described below based on its prior contractual assumption of all PNSC financial responsibility flowing from any NERC or FERC investigation of the events of February 14, 2008. In resolution hereof, WECC agrees to undertake the following obligations.

A. Civil Penalty

24. WECC shall pay a civil penalty in the amount of \$350,000, divided equally between the United States Treasury and NERC, within 10 days of the Commission's issuance of an order approving this Agreement without modification or condition.

B. Reliability Enhancement Measures

25. To ensure that PNSC's deficiencies as identified by the investigation are not perpetuated, WECC shall undertake or demonstrate that it has already undertaken the following actions:

- (a) Implement improved training programs and procedure enhancements with respect to IRO-005-0, Requirement R11, to ensure that its Reliability Coordinators understand their responsibility to timely and proactively direct Balancing Authorities within the Reliability Coordinator Area to comply with the Disturbance Control Standard, including incorporating the substantive portions of a procedure proposed by Enforcement and NERC into WECC's existing Disturbance Control Standard Procedure.
- (b) Implement improved training programs and procedure enhancements to ensure that the capacity and energy emergency plans for WECC's Reliability Coordinators, as well as the requirements for the appropriate issuance of Energy Emergency Alerts, are understood and properly carried out by Reliability Coordinators, as required by EOP-002-2, Requirement R1.
- (c) Implement improved training programs and procedure enhancements to ensure when WECC's real-time contingency analysis program does not run following a contingency, a contingency analysis is promptly performed by other means for proper SOL and IROL identification and monitoring, as required by IRO-002-1, Requirement R9.
- (d) Implement training programs and procedure enhancements to ensure that

when a directive is issued:

- it is clear that the communication is a directive;
 - the directive is given in a clear, concise and definitive manner; and,
 - the issuer of the directive understands that he/she is responsible for ensuring all parties adhere to the three-part communication procedure: issue, repeat and acknowledge.
- (e) Implement training programs and procedure enhancements to create a “responsibility to act” culture within WECC to improve the emergency prevention and response of the Reliability Coordinator function. These programs and enhancements must emphasize the importance of the Reliability Coordinator in maintaining reliability of the Bulk Power System, including the need for Reliability Coordinators to act swiftly and decisively.
- (f) Update and maintain WECC’s system modeling and other tools and reference resources to account for the effects of Special Protection Schemes that may affect Inter-Balancing Authority or Inter-Transmission Operator flows for all operating time frames, including day ahead and real time operations.
- (g) Implement a refresher training program for Reliability Coordinators on the provisions of the Northwest Power Pool (NWPP) reserve sharing program. Training shall include the impact of transmission limitations on the delivery of energy from the NWPP to any Balancing Authority in need of assistance.
- (h) Provide Reliability Coordinators with additional training and tools to increase their awareness of (1) the Balancing Authorities’ reserves, and (2) the Balancing Authorities’ ability to maintain and restore reserves. The training must also create a "responsibility to act" culture to timely and proactively take action on information that indicates a lack of reserves and assist a Balancing Authority having difficulty maintaining or restoring reserves.
- (i) Update WECC’s emergency procedures to specifically address emergencies similar to the February 14, 2008 disturbance, which was a loss of generation beyond the Most Severe Single Contingency.

WECC has agreed with Enforcement and NERC staff to a compliance plan dated June 9, 2011 to complete each item listed above.

26. WECC shall make semi-annual reports to Enforcement and NERC staff for one year following the Effective Date of this Agreement. The first semi-annual report shall be submitted no later than ten days after the end of the second calendar quarter after the quarter in which the Effective Date of this Agreement falls. The second report shall be submitted six months thereafter. WECC shall: (1) advise Enforcement and NERC staff whether violations of the Reliability Standards by the WECC Reliability Coordinator function have occurred, to the extent any such violations have not already been self-reported; (2) provide a detailed update of the compliance plan noted in ¶ 25 above, instituted in the applicable period; and (3) include an affidavit executed by an officer of WECC that the compliance reports are true and accurate.

27. Upon request by Enforcement and NERC staff, WECC shall provide all documentation supporting its reports, including the reports and recommendations of any external consultants. In responding to such requests, WECC reserves the right to assert any legal privileges that may apply. After the receipt of the second semi-annual report, Enforcement and NERC may, at their sole discretion, require WECC to submit semi-annual reports for one additional year.

28. WECC explained that it has undertaken actions related to these reliability enhancement measures. As part of its plan to consolidate into an Interconnection-wide Reliability Coordination function, WECC undertook a wholesale revision of the procedures and tools used by the Reliability Coordinators to perform their duties. For example, the WECC Board of Directors ordered the development and deployment of a West-wide System Model to provide a common view of the entire Western Interconnection to WECC's Reliability Coordinators. As a result, as of December 31, 2008, WECC had completed or put in place several of the Reliability Enhancement Measures noted above. For instance, WECC developed and implemented a procedure for issuing directives including a template that ensures the three-part communication protocol is used and trained its Reliability Coordinators on its use.

29. WECC has put in place a substantial training and development program. WECC has two full-time dedicated Reliability Coordinator trainers, one located at each Reliability Coordination center. The training programs and continuing education requirements address topics ranging from when to issue Energy Emergency Alerts to regional restoration processes for the Pacific Northwest, California, and the Rocky Mountain/Desert Southwest.

30. WECC has also improved the tools available to the Reliability Coordinators. WECC's Reliability Coordinators have access to EMS and Plant Information displays that indicate a Balancing Authority's required reserves and its actual reserves. WECC has also put in place an update to the Real-Time Contingency Analysis tool used by the

Reliability Coordinators. Since WECC began operating its Reliability Coordination Centers, when the State Estimator program solves with a mismatch, it will still send a solution to the Real Time Contingency Analysis tool for processing.

IV. TERMS OF CONSENT AGREEMENT

31. The Effective Date of this Agreement shall be the date on which the Commission issues an order approving this Agreement without modification or condition.

32. Unless the Commission issues an order approving the Agreement in its entirety and without modification or condition, the Agreement shall be null and void and of no effect whatsoever, and neither Enforcement, NERC, nor WECC shall be bound by any provision or term of the Agreement, unless otherwise agreed in writing by Enforcement, NERC and WECC.

33. The parties shall treat the Agreement as confidential until approved by each party and the Commission issues an order approving the Agreement without modification or condition. The Agreement shall be made public only after the Commission's approval without modification or condition.

34. All information and documents provided by WECC to the Commission and/or NERC as part of the investigation and/or the settlement of the investigation were submitted on a confidential basis and are not information and documents that would normally be disclosed to the public. Aside from the public release of the Agreement after the Commission issues an order approving the Agreement in its entirety and without modification or condition, no information or documents pertaining to the investigation shall be disclosed publicly by the Commission or NERC, except as required by law.

35. The Agreement binds WECC and its agents, successors and assigns. The Agreement does not create or impose any additional or independent obligations on WECC, or any affiliated entity, its agents, officers, directors or employees, other than the obligations identified in Section III of this Agreement.

36. In connection with the payment of the civil penalty provided for herein, WECC agrees that the Commission's order approving the Agreement without modification or condition shall be a final order assessing a civil penalty under sections 215(e)(3) and 316A(b) of the Federal Power Act, 16 U.S.C. §§ 824O(e)(3) and 825o-1(b), as amended. WECC further waives rehearing of any Commission order approving the Agreement without modification or condition, and judicial review by any court of any Commission order approving the Agreement without modification or condition. WECC also waives any rights of appeals provided by the NERC Rules of Procedure.

37. Commission approval of this Agreement without modification or condition shall fully, irrevocably, and unconditionally release WECC, its agents, officers, directors and employees, both past and present, and any successor in interest to WECC from, and forever bar the Commission and NERC from bringing against WECC and its agents, officers, directors and employees, both past and present, and any successor in interest to WECC, any and all direct and/or indirect administrative, civil, criminal or other claims or liability (whether or not known) arising out of, related to, or connected with the event or the investigation. In further consideration for this release, WECC represents that it is not aware of any material facts concerning the event that were not disclosed to Enforcement and NERC during the investigation and which might reasonably be considered to be a violation of any Reliability Standard. Upon the Effective Date of this Agreement, Enforcement's and NERC's investigation of WECC shall terminate.

38. Failure to make a timely payment or to comply with any other provision of this Agreement shall be deemed a violation of a final order of the Commission issued pursuant to the Federal Power Act, 16 U.S.C. § 792, *et seq.*, and may subject WECC to additional action under the enforcement and penalty provisions of the Federal Power Act.

39. If WECC does not make the payment above at or before the time agreed by the parties, interest on the portion payable to the United States Treasury will begin to accrue and be payable to the United States Treasury, pursuant to the Commission's regulations at 18 C.F.R. § 35.19(a)(2)(iii), from the date that payment is due. Similarly, interest on the portion payable to NERC will begin to accrue at the rate set forth in the same regulations from the date payment is due.

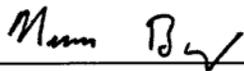
40. The signatories to the Agreement agree that they enter into the Agreement voluntarily and that, other than the recitations set forth herein, no tender, offer or promise of any kind by any member, employee, officer, director, agent or representative of Enforcement, NERC, or WECC has been made to induce the signatories or any other party to enter into the Agreement.

41. Each of the undersigned warrants that he or she is an authorized representative of the entity designated, is authorized to bind such entity and accepts the Agreement on the entity's behalf.

42. The undersigned representative of WECC affirms that he or she has read the Agreement, that all of the matters set forth in the Agreement are true and correct to the best of his or her knowledge, information and belief, and that he or she understands that the Agreement is entered into by Enforcement and NERC in express reliance on those representations.

43. The Agreement may be signed in counterparts.

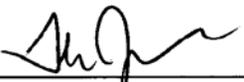
Agreed to and accepted:



Norman Bay
Director, Office of Enforcement
Federal Energy Regulatory Commission
Date: June 15, 2011



Mark W. Maher
Chief Executive Officer
Western Electricity Coordinating Council
Date: 6/9/2011



Tom Galloway
Senior Vice President &
Chief Reliability Officer

North American Electric Reliability
Corporation
Date: 6/14/11

Attachment A: List of Violations.

IRO-005-1, R11: The Reliability Coordinator shall identify sources of large Area Control Errors that may be contributing to Frequency Error, Time Error, or Inadvertent Interchange and shall discuss corrective actions with the appropriate Balancing Authority. The Reliability Coordinator shall direct its Balancing Authority to comply with CPS and DCS.

IRO-005-1, R8: Each Reliability Coordinator shall monitor system frequency and its Balancing Authorities' performance and direct any necessary rebalancing to return to CPS and DCS compliance. The Transmission Operators and Balancing Authorities shall utilize all resources, including firm load shedding, as directed by its Reliability Coordinator to relieve the emergent condition.

EOP-002-2, R1: Each Balancing Authority and Reliability Coordinator shall have the responsibility and clear decision-making authority to take whatever actions are needed to ensure the reliability of its respective area and shall exercise specific authority to alleviate capacity and energy emergencies.

IRO-001-1, R3: The Reliability Coordinator shall have clear decision-making authority to act and to direct actions to be taken by Transmission Operators, Balancing Authorities, Generator Operators, Transmission Service Providers, Load-Serving Entities, and Purchasing- Selling Entities within its Reliability Coordinator Area to preserve the integrity and reliability of the Bulk Electric System. These actions shall be taken without delay, but no longer than 30 minutes.

IRO-005-1, R13: Each Reliability Coordinator shall ensure that all Transmission Operators, Balancing Authorities, Generator Operators, Transmission Service Providers, Load-Serving Entities, and Purchasing-Selling Entities operate to prevent the likelihood that a disturbance, action, or nonaction in its Reliability Coordinator Area will result in a SOL or IROL violation in another area of the Interconnection. ...

EOP-002-2, R8: A Reliability Coordinator that has any Balancing Authority within its Reliability Coordinator area experiencing a potential or actual Energy Emergency shall initiate an Energy Emergency Alert as detailed in Attachment 1-EOP-002-0 "Energy Emergency Alert Levels." ...

COM-002-0, R2: Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall issue directives in a clear, concise, and definitive manner; shall ensure the recipient of the directive repeats the information back correctly; and shall acknowledge the response as correct or repeat the original statement to resolve any misunderstandings.

IRO-005-1, R12: Whenever a Special Protection System that may have an inter-Balancing Authority, or inter-Transmission Operator impact (e.g., could potentially affect transmission flows resulting in a SOL or IROL violation) is armed, the Reliability Coordinators shall be aware of the impact of the operation of that Special Protection System on inter-area flows. ...

IRO-002-1, R9: ... Each Reliability Coordinator shall have procedures in place to mitigate the effects of analysis tool outages.