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1.0 PURPOSE

To document compliance for NERC Reliability Standard EOP-001-0 for Public Service Company of Colorado.

2.0 APPLICABILITY

| Standard Owner | Req Owner | Req No. | Transm Operators | Balancing Authority |
|-----------------------------|-----------------------------|---------|-----------------------------|---|
| Transmission Control Center | Transmission Control Center | R1 | NA | Transmission Control Center |
| | Transmission Control Center | R2 | Transmission Control Center | NA |
| | Transmission Control Center | R3 | Transmission Control Center | Transmission Control Center (P) Commercial Operations (S) |
| | Transmission Control Center | R4 | Transmission Control Center | Transmission Control Center |
| | Transmission Control Center | R5 | Transmission Control Center | Transmission Control Center |
| | Transmission Control Center | R6 | Transmission Control Center | Transmission Control Center |
| | Transmission Control Center | 7.1&3 | Transmission Control Center | Transmission Control Center (P) Commercial Operations (S) |
| | Transmission Control Center | 7.2&.4 | Transmission Control Center | Transmission Control Center (P) Commercial Operations (S) Gas Supply & Ping (S) Coal Supply (S) |


3.0 APPROVERS

| Name | Title |
|---------------|------------------------------|
| Robert Staton | Manager, PSCo Control Center |
| Greg Pieper | Director, System Operations |

4.0 REVISION HISTORY

| Date | Revision Number | Supercedes | Change |
|----------|-----------------|------------|-----------------------|
| 07/10/08 | 1.0 | N/A | Upload to ProjectWise |

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| Author: Bob Staton | Approved: Bob Staton |
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Standard EOP 001-0 Emergency Operations Planning

A. Introduction

1. **Title: Emergency Operations Planning**
2. **Number:** EOP-001-0
3. **Purpose:** Each Transmission Operator and Balancing Authority needs to develop, maintain, and implement a set of plans to mitigate operating emergencies. These plans need to be coordinated with other Transmission Operators and Balancing Authorities, and the Reliability Coordinator.
4. **Applicability**
 - 4.1. Balancing Authorities – PSCo Transmission Control Center
 - 4.2. Transmission Operators – PSCo Transmission Control Center
5. **Effective Date: April 1, 2005**

B. Requirements

- R1. Balancing Authorities shall have operating agreements with adjacent Balancing Authorities that shall, at a minimum, contain provisions for emergency assistance, including provisions to obtain emergency assistance from remote Balancing Authorities.


Compliance R1

Emergency assistance and interchange agreements set out the basic mechanisms, organizational structures, responsibilities and procedures to guide Public Service Company of Colorado (PSCo) in responding to emergencies on the bulk electric system. These agreements also serve as the foundation for the development and coordination of Rocky Mountain Reserve Group (RMRG) emergency response plans. The focus of these plans is on emergency response, mitigation, and recovery.

PSCo has a number of agreements with other entities including contiguous and remote Balancing Authorities, Transmission Operators, and the RMRG, which provide PSCo with valuable assistance during operating emergencies. By entering into these agreements, PSCo ensures that it will have the emergency capacity, energy, and transmission resources to mitigate operating emergencies on its system.

Emergency assistance can be called upon from:

- The other operating companies of Xcel Energy (per the Joint Operating Agreement) which are Southwestern Public Service (SPS) and Northern States Power (NSP)
- The Rocky Mountain Reserve Group (RMRG) through the Bylaws of the Rocky Mountain Reserve Group
- The Public Service Company of New Mexico (PNM) through the Emergency Assistance Operating Agreement

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- The Western Area Power Administration (WAPA), Loveland Office, through Contract No. 88-LAO-376 and the Contract No. 07-RMR-1727 Letter of Concurrence
- WAPA (Loveland) Emergency Assistance Request

See file: *PSC-EVD-B2 Joint Operating Agreement*

See file: *See file: PSC-EVD-fbylaw3.15.02.*

See file: *PSC-EVD-B4 RMRG Activation Deactivation Procedures*

See file: *PSC-EVD-B5 PSCo_PNM Energy Assistance Operating Agreement*

See file: *PSC-EVD-B6 Contract No 88_LAO_376*

See file: *PSC-EVD-B7 Contract No 07_RMR_1727 Letter*

See file: *PSC-EVD-B8 WAPA Emergency Assistance Request*

The 3.3.0 PSCo Emergency Response Guidelines_v0_final.doc (page 14) and the B1 Emergency Assistance_v0_final.doc document (entire document) include provisions to obtain emergency assistance from remote Balancing Authorities.

See file: *PSC-PLN-PSCo Emergency Response Guidelines*

See file: *PSC-PLN-Emergency Assistance Overview*

- R2.** The Transmission Operator shall have an emergency load reduction plan for all identified IROLs. The plan should include the details on how the Transmission Operator will implement load reduction in sufficient amount and time to mitigate the IROL violation before system separation or collapse would occur. The load reduction plan must be capable of being implemented within 30 minutes.

Compliance R2

Not applicable. PSCo has no identified IROLs. The following letter provides evidence to support this.


See file: *PSC-EVD-A1 SOL_IROL_Letter_to_the_OTCPC_rev*

In the unlikely event of an IROL violation, the Control Center Operators will follow the procedure below for mitigating and reporting.

See file: *PSC-PRO-PSCo D-004 IROL, SOL Documenting and Reporting of Exceedances*

- R3.** Each Transmission Operator and Balancing Authority shall:

- R3.1.** Develop, maintain, and implement a set of plans to mitigate operating emergencies for insufficient generating capacity.

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Compliance R.3.1

The EOP includes a suite of procedures for Control Center Operators for responding to different types and severities of emergency conditions, including insufficient generating capacity. These procedures, as referenced in the files below, are intended to stand alone, but also to allow progression from one procedure to the next as the nature of the situation evolves.

See file: *PSC-PLN-Energy and Capacity Emergencies Overview*

See file: *PSC-PLN-Loss of Generation*

See file: *PSC-PRO-PSCo F-003 Go Max Alarm Procedure Manual and Testing*

An example of the weekly Go Max test results is attached.

See file: *PSC-EVD-Weekly Go Max Test 05 10 2008*

See file: *PSC-PLN-Curtailment of Export Schedules*

See file: *PSC-PLN-PSCo Emergency Response Guidelines*

In addition, operating plans have been created for PSCo Network Reliability Leads, Balancing Area Operators, Transmission Operators and Senior Operators (collectively, Control Center Operators) that outlines general concepts applicable for both normal and emergency operation of the PSCo transmission system. These plans differ from the EOP compliance documentation in that the EOP is much more detailed and specifically focused on emergencies.

See file: *PSC-PRO-PSCo A-001 PSCo Operating Plan*

See file: *PSC-PRO-PSCo A-010 Operational Planning Near Term and Seasonal Study Process*

See file: *PSC-PRO-PSCo A-011 Day Ahead Operations Planning*

See file: *PSC-EVD-Control Area Operation Daily Log*


- R3.2.** Develop, maintain, and implement a set of plans to mitigate operating emergencies on the transmission system.

Compliance R3.2

Public Service Company of Colorado (PSCo) has developed a set of Transmission System Emergency procedures to effectively address transmission emergencies on its system such as line and equipment overloading, line and equipment outages, and low and high line voltages. These procedures, as referenced in the files below, are intended to be used individually or in combination and in conjunction with the 3.3.0 PSCo Emergency Response Guidelines_v0_final.doc.

See file: *PSC-PLN-Low Voltage*

See file: *PSC-PLN-High Voltage*

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See file: *PSC-PLN-Line Overloading*

See file: *PSC-PLN-Loss of Transmission Line*

See file: *PSC-PLN-System Frequency Disturbances*

See file: *PSC-PLN-PSCo Emergency Response Guidelines*

R3.3. Develop, maintain, and implement a set of plans for load shedding.


Compliance R3.3

Public Service Company of Colorado (PSCo) has developed load management programs that can be used to help reduce load and stabilize the system in the event of an emergency. These methods can be used individually or in combination as needed to respond to a system emergency.

- *Interruption of Large Commercial and Industrial Loads* -- Initiated by Transmission Operations (as described in the 3.3.0 PSCo Emergency Response Guidelines_v0_final.doc (ERG)) and implemented by Transmission Operations.
- *Manual Load Shed* -- Initiated by Transmission Operations (as described in the ERG) and implemented by Transmission Operations.
- *Under Frequency Load Shed (UFLS)* -- Initiated automatically when frequency decays below preset levels, which provides an overview of PSCo's UFLS program. (See the Colorado and Wyoming Off-Nominal Frequency Protection Program document and the WECC Coordinated Off-Nominal Frequency Load Shedding and Restoration Plan.)
- *Savers Switch* -- This program is used to interrupt HVAC usage in the summer months when load is 5,900 megawatts (MW) or greater. Reductions through this program are initiated by Commercial Operations and implemented by Load Management Personnel. Peak load reductions through this program are estimated to be 105-110 MW, at summer peak.
- *Reduction of Internal Energy Use at PSCo and Xcel Energy Facilities* -- Initiated at the request of Transmission Operations (as described in the ERG).
- *Voluntary Load Reductions by Customers* -- Customers include governmental entities such as Buckley AFB and University of Colorado at Boulder, who have voluntarily agreed to consider reducing load during emergencies upon request. Initiated at the request of Transmission Operations (as described in the ERG) and implemented pursuant to processes developed by Retail Marketing.
- *Public Appeals for Load Reduction* -- Initiated by Transmission Operations (as described in the ERG) and implemented pursuant to processes developed by Media Relations.

See file: *PSC-PLN-Load Shedding Programs Overview*

See file: *PSC-PLN-ISOC Procedures*

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See file: *PSC-PLN-Manual Load Shed*

See file: *PSC-PLN-UFLS*

See file: *PSC-PLN-Internal Load Reduction*

See file: *PSC-PLN-Voluntary Load Reductions*

See file: *PSC-PLN-Public Appeals*

See file: *PSC-PLN-PSCo Emergency Response Guidelines*

See file: *PSC-PLN-PSCo Crit Cust List*

See file: *PSC-PLN-PSCo Automatic Under Frequency Load Shed*

See file: *PSC-PLN-Manual Load Shed Program*

R3.4. Develop, maintain, and implement a set of plans for system restoration.

Compliance R3.4

Power system disturbances are most likely to occur as the result of loss of generating equipment, transmission facilities, or as the result of unexpected load changes. These disturbances may be of, or develop into, a magnitude sufficient to affect the reliable operation of the PSCo system. The associated conditions under severe system disturbances generally result in critically loaded transmission facilities, critical frequency deviations, or high or low voltage conditions. PSCo strives to maintain, at all times, the integrity of its transmission system and to prevent any unplanned separation. However, in the unlikely event of such a separation, PSCo has developed plans to prepare for and deal with restoration. The set of plans for system restoration is primarily contained in the 4.0.0 PSCo System Restoration Plan (the Plan) as filed with the WECC. The Plan has been developed in accordance with North American Electric Reliability Corporation (NERC) Reliability Standards to provide the necessary procedures and information to enable the PSCo system operators to reestablish the PSCo electric system in a stable and orderly manner in the event of a partial or total shutdown of the PSCo electric system, or the loss of vital telecommunications channels.


See file: *PSC-PLN-PSCo System Restoration Plan*

R4. Each Transmission Operator and Balancing Authority shall have Emergency Plans that will enable it to mitigate operating emergencies. At a minimum, Transmission Operator and Balancing Authority Emergency Plans shall include:

R4.1. Communications protocols to be used during emergencies.

Compliance R4.1

Many informal channels are used to communicate business-related information every day. Widespread emergency communication depends on disseminating alerts, warnings and follow-up information through as many channels as possible, very rapidly. In managing the

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bulk electric system, communicating effective alerts and warnings allows Public Service Company of Colorado (PSCo) to take actions that save lives, reduce damage and speed recovery. Rapid reporting about what is happening to the appropriate groups during a major emergency can also be very effective in protecting people, reducing damage, and improving response.

The 7.0.0 Communication Protocols_v0_final.doc addresses the following activities that are ancillary to operational procedures implemented through the Transmission Control Centers:

- Public Appeals
- Voluntary load reduction, which includes load reduction by government agencies
- Notification of governmental entities
- Notifications to wholesale customers through Commercial Operations

See file: *PSC-PLN-Communication Protocols Overview*

- R4.2.** A list of controlling actions to resolve the emergency. Load reduction, in sufficient quantity to resolve the emergency within NERC-established timelines, shall be one of the controlling actions.

Compliance R4.2

The PSCo Emergency Operations Plans include a suite of procedures for Control Center Operators for responding to different types and severities of emergency conditions, including insufficient generating capacity. These procedures are intended to stand alone, but also to allow progression from one procedure to the next as the nature of the situation evolves. Specific controlling actions are addressed in the two procedures discussed below.

The 3.3.0 PSCo Emergency Response Guidelines_v0_final.doc contains a list of controlling actions used by the Transmission Operators and Balancing Authority Operators to resolve system emergencies.

See file: *PSC-PLN-PSCo Emergency Response Guidelines*

The PSCo 3.4.2 Manual Load Shed document contains a list of controlling actions that will aid the Transmission Operators and Balancing Authority Operators in shedding sufficient quantities of load to resolve the emergency within NERC-established guidelines.


See file: *PSC-PLN-Manual Load Shed*

- R4.3.** The tasks to be coordinated with and among adjacent Transmission Operators and Balancing Authorities.

Compliance R4.3

PSCo coordinates numerous tasks during emergencies with Balancing Authorities (BAs) and Transmission Operators (TOPs) in addition to the tasks it coordinates with its Reliability Coordinator (RDRC) and Reserve Sharing Group (RMRG). The tasks for each group are summarized in the PSCo Emergency Response Guidelines.doc as well as the procedure described in R4.2 above.

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See file: PSC-PLN-PSCo Emergency Response Guidelines

See file: PSC-PLN-PSCo Automatic Under Frequency Load Shed

R4.4. Staffing levels for the emergency.

Compliance R4.4

Staffing is a critical consideration in ensuring that adequate supervisory, operating and support personnel are present to perform the necessary procedural implementation, coordination, communication and technical support functions during emergencies. In addition to having the right personnel, personnel with responsibility and clear decision making authority must also be in place during emergencies. PSCo's management has given its Control Center Operators such authority, and Control Center Operator position descriptions clearly delineate their responsibilities.

The Control Center Manager is responsible for the development and approval of staffing levels at the primary PSCo Control Center and backup South Network Control Center (SNCC). Normal and Emergency Staffing Levels are shown in Tables 1 and 2 in Staffing for Emergencies.doc.

See file: PSC-PLN-Staffing for Emergencies Overview

See file: PSC-POL-PSCo P-001 Letter of Authority_PDF

See file: PSC-POL-PSCo P-004 Job Descriptions

See file: PSC-POL-PSCo P-004a PSCo NRL Job Description

See file: PSC-POL-PSCo P-004c PSCo TSO Job Description

See file: PSC-POL-PSCo P-004d PSCo TSO Senior Job Description

See file: PSC-POL-PSCo P-004f PSCo BAO Job Description

See file: PSC-POL-PSCo P-004g PSCo BAO Senior Job Description

R5. Each Transmission Operator and Balancing Authority shall include the applicable elements in Attachment 1-EOP-001-0 when developing an Emergency Plan.

- 1. Fuel supply and inventory** - An adequate fuel supply and inventory plan that recognizes reasonable delays or problems in the delivery or production of fuel.


Compliance 1. Fuel supply and inventory

PSCo has developed a set of plans and procedures to address fuel-related operating emergencies, including the widespread loss or curtailment of gas supply.

See file: XEL-POL-EFS-2.800P Fuel Supply Disturbance Reporting

See file: XEL-POL-EFS-2.801P Fuel Supply Disturbance Reporting (NG and FO) 053

See file: PSC-PRO-Gas Purchasing Procedures

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See file: *PSC-PRO-Fuel Oil Purchasing Procedures*

See file: *XEL-PRO-Coal Supply Planning Procedure EFS 2-804P*

See file: *XEL-PRO-Gas Supply Planning Procedure EFS 2-805P*

2. **Fuel switching** — Fuel switching plans for units for which fuel supply shortages may occur, e.g., gas and light oil.

Compliance 2. Fuel switching

During emergencies involving the need to conserve fuel in short supply, Real-time Dispatch initiates a set of controlling actions that are designed to have generating units which are capable of switching fuels, take steps to switch from a fuel in short supply to an alternative fuel. The fuel in short supply is often natural gas, thus plants that are capable of burning fuel oil are the focus of these controlling actions. Actions taken are aligned with, and augment, the appropriate procedures in the 3.3.0 PSCo Emergency Response Guidelines_v0_final.doc.

See file: *XEL-PRO-Coal Supply Planning Procedure EFS 2-804P*

See file: *XEL-PRO-Gas Supply Planning Procedure EFS 2-805P*

See file: *PSC-PLN-PSCo Emergency Response Guidelines*

3. **Environmental constraints** — Plans to seek removal of environmental constraints for generating units and plants.

Compliance 3. Environmental constraints


During emergencies such as insufficient generating capacity, other capacity and energy emergencies, the need to conserve fuel in short supply, or transmission emergencies, the occasion may arise that environmental commitments at certain generating facilities may have to be deferred to prevent increasing the severity of the emergency on the PSCo system or the public. Commercial Operations can initiate a set of controlling actions to ensure the Gas Control and Environmental departments make the proper notification or provide authorization to allow deviation from established environmental constraints on environmentally constrained generating units. Plant and Environmental personnel will be contacted per appropriate steps in the 3.3.0 PSCo Emergency Response Guidelines_v0_final.doc.

See file: *XEL-POL-Removal of Environmental Constraints*

4. **System energy use** – The reduction of the system’s own energy use to a minimum.

Compliance 4. System energy use

During emergencies such as insufficient generating capacity, other capacity and energy emergencies, the need to conserve fuel in short supply, or transmission emergencies that reach a level of severity to warrant a Yellow, Orange or Red Alert

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per the PSCo Standardized Alert Level Definitions, Operators contact Property Services to have them initiate the following procedure:

See file: *PSC-PLN-Internal Load Reduction*

5. **Public appeals** – Appeals to the public through all media for voluntary load reduction and energy conservation including educational messages on how to accomplish such load reduction and conservation.

Compliance 5. Public appeals

During emergencies such as insufficient generating capacity, other capacity and energy emergencies, need to conserve fuel in short supply, or transmission emergencies that reach a level of severity to warrant a Yellow, Orange or Red Alert per the PSCo Standardized Alert Level Definitions, Operators contact Security Operations to have them activate the MissionMode notification system to prepare for impending requests for making appeals to the public for voluntary load reductions and energy conservation in addition to providing information to the public on what they could do to accomplish such reductions and conservation. Security Operations will make requests of Media Relations to send out notifications per the appropriate steps in the 3.4.6 Public Appeals_v1.doc procedure. Making public appeals is part of PSCo's load shedding programs to address emergency conditions on its system.

See file: *PSC-PLN-Public Appeals*

6. **Load management** – Implementation of load management and voltage reductions, if appropriate.

Compliance 6. Load management

Implementation of the detailed plans and procedures discussed below is outlined in the 3.3.0 PSCo Emergency Response Guidelines_v0_final.doc (pages 7- 19).

See file: *PSC-PLN-PSCo Emergency Response Guidelines*

PSCo has developed a set of plans and procedures that utilize PSCo resources to address operating emergencies on its System to reduce load and stabilize the System.

See file: *PSC-PLN-ISOC Procedures*


See file: *PSC-PLN-Internal Load Reduction*

See file: *PSC-PLN-Voluntary Load Reductions*

See file: *PSC-PLN-Public Appeals*

7. **Optimize fuel supply** - The operation of all generating sources to optimize the availability.

Compliance 7. Optimize fuel supply

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During emergencies to conserve fuel in short supply, PSCo Control Center personnel initiate a series of controlling actions to maximize the capacity and conserve any fuel in short supply. Actions taken are aligned with, and augment, the appropriate procedures in the 3.3.0 PSCo Emergency Response Guidelines_v0_final.doc.

See file: XEL-PRO-Coal Supply Planning Procedure EFS 2-804P

See file: XEL-PRO-Gas Supply Planning Procedure EFS 2-805P

See file: PSC-PLN-PSCo Emergency Response Guidelines

8. **Appeals to customers to use alternate fuels** — In a fuel emergency, appeals to large industrial and commercial customers to reduce non-essential energy use and maximize the use of customer-owned generation that rely on fuels other than the one in short supply.

Compliance 8. Appeals to customers to use alternate fuels

During emergencies that reach a level of severity to warrant a Red Alert per the PSCo Standardized Alert Level Definitions, PSCo can request from one to two hundred large commercial and industrial customers and government entities to voluntarily reduce load or run on-site generation.

See file: PSC-PLN-Voluntary Load Reductions

See file: PSC-PLN-PSCo Emergency Response Guidelines

9. **Interruptible and curtailable loads** – Use of interruptible and curtailable customer load to reduce requirements or to conserve the fuel in short supply.

Compliance 9. Interruptible and curtailable loads

PSCo has developed a set of plans and procedures which utilize PSCo resources to address operating emergencies on its System to reduce load and stabilize the System.

See file PSC-PLN-ISOC Procedures


See file: PSC-PLN-Internal Load Reduction

See file: PSC-PLN-Voluntary Load Reductions

See file: PSC-PLN-PSCo Emergency Response Guidelines

10. **Maximizing generator output and availability** — the operation of all generating sources to maximize output and availability. This should include plans to winterize units and plants during extreme cold weather.

Compliance 10. Maximizing generator output and availability

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During emergencies such as insufficient generating capacity, other capacity and energy emergencies, the need to conserve fuel in short supply, or transmission emergencies that reach a level of severity to warrant a Yellow Alert per the PSCo Standardized Alert Level Definitions, Control Center Operators initiate a set of controlling actions that are designed to maximize the energy available to the system from internal PSCo resources. Actions to be taken are aligned with the appropriate steps in the 3.3.0 PSCo Emergency Response Guidelines_v0_final.doc.

See file: *PSC-PLN-Cold Weather Policy*

See file: *PSC-PLN-PSCo Emergency Response Guidelines*

See file: *PSC-EVD-Control Area Operation Daily Log*

11. **Notifying IPPs** – Notification of cogeneration and independent power producers to maximize output and availability.

Compliance 11. Notifying IPPs

Currently there are no customers within the PSCo service territory that are called upon to maximize their cogeneration assets during emergencies. PSEs may be contacted as described in the 3.3.0 PSCo Emergency Response Guidelines_v0_final.doc.

See file: *PSC-PLN-PSCo Emergency Response Guidelines*

12. **Requests of government** – Requests to appropriate government agencies to implement programs to achieve necessary energy reductions.

Compliance 12. Requests of government

See file: *PSC-PLN-Voluntary Load Reductions*


13. **Load curtailment** - A mandatory load curtailment plan to use as a last resort. This plan should address the needs of critical loads essential to the health, safety, and welfare of the community. Address firm load curtailment.

Compliance 13. Load Curtailment

See file: *PSC-PLN-Manual Load Shed*

14. **Notification of government agencies** — Notification of appropriate government agencies as the various steps of the Emergency Plan are implemented.

Compliance 14. Notification of government agencies

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See file: *XEL-PRO-Emergency Notification Procedures for Regulatory Personnel*

- 15. Notifications to operating entities** — Notifications to other operating entities as steps in Emergency Plan are implemented.

Compliance 15. Notifications to operating entities

Steps for notification of other operating entities are included within the 3.3.0 PSCo Emergency Response Guidelines_v0_final.doc.

See file: *PSC-PLN-PSCo Emergency Response Guidelines*

- R6.** The Transmission Operator and Balancing Authority shall annually review and update each Emergency Plan. The Transmission Operator and Balancing Authority shall provide a copy of its updated Emergency Plans to its Reliability Coordinator and to neighboring Transmission Operators and Balancing Authorities.


Compliance R6

There are three types of document maintenance programs employed by PSCo: (a) an annual update, review, and distribution as required by North American Electric Reliability Corporation (NERC) Standard EOP-001-0; (b) update and distribution as required by significant changes in emergency operations activities; and (c) more comprehensive reviews conducted on a rolling three-year basis (described further below) that are designed to ensure that all content within the PSCo EOP is critically reviewed, challenged and modified as necessary every three years. PSCo shares its Emergency Operations Plans (and updates thereto) with the three adjacent Balancing Authorities (Western-RMR, Public Service Company of New Mexico, and Southwestern Public Service), the Reliability Coordinator (RDRC), and neighboring Transmission Operators (PRPA, Tri-State, Aquila, WAPA, and Colorado Springs Utilities). Documentation demonstrating delivery of the PSCo EOP to the entities identified herein shall be maintained by the Transmission Control Center Manager as evidence of compliance with the requirements of EOP-001-0 relating to annual update and distribution of EOPs.

See file: *PSC-PLN-Documentation Maintenance*

The following files are the FedEx delivery receipt for delivery of the current Emergency Operations Plan to the Reliability Coordinator and to neighboring Tos and Bas.

See file: *PSC-EVD-Aquila*
See file: *PSC-EVD-PlatteRiverPowerAuthority*
See file: *PSC-EVD-PublicServiceNewMexico*
See file: *PSC-EVD-SPS*
See file: *PSC-EVD-TriState*
See file: *PSC-EVD-Western-DesertSW*
See file: *PSC-EVD-Western-RDRC-Loveland*
See file: *PSC-EVD-Western-RockyMtn*

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R7. The Transmission Operator and Balancing Authority shall coordinate its Emergency Plans with other Transmission Operators and Balancing Authorities as appropriate. This coordination includes the following steps, as applicable:

R7.1. The Transmission Operator and Balancing Authority shall establish and maintain reliable communications between interconnected systems.

Compliance R7.1

The Transmission Control Center has dedicated Auto-Ring-down lines to PSCo power plants, distribution control center, Service Centers, neighboring Balancing Authorities and Transmission Operators. These lines do not require dialing, but are programmed to auto dial or recognize a telephone off-hook event, then directly connect the call to the opposite end of the line. Telephones are two-way so either end of the line can initiate a call. Most of these lines utilize Xcel Energy’s private fiber network or microwave network.

PSCo also observes and maintains emergency communications protocols established by WECC and RDRC. The WECC Reliability Coordinator document, *Emergency Reporting and Restoration Practices*, along with *Rocky Mountain – Desert Southwest Reliability Coordination (RDRC) Communication and Operation Procedures* provides emergency communication protocols to assist member companies in ensuring the successful operation of the Western Interconnection.

See file: *PSC-PLN-Emergency Operating Procedures Overview*

See file: *PSC-PLN-Communication Protocols Overview*

R7.2. The Transmission Operator and Balancing Authority shall arrange new interchange agreements to provide for emergency capacity or energy transfers if existing agreements cannot be used.


Compliance R7.2

PSCo provides for emergency capacity and energy transfers through its emergency assistance and interconnection agreements. Such provisions cover situations where loss of generation or transmission facilities results in a deficiency in one generation system that requires the purchase of energy from another system. Interchange agreements cover these situations by establishing guidelines for activation of reserves in the form of emergency assistance, and the terms of reimbursement for providing assistance.

PSCo will establish new emergency interchange agreements if the existing agreements become obsolete, expire, or otherwise become unworkable. Letters from each member of the RMRG describing how they intend to meet their operating reserve requirements are found in B9 RMRG Correspondence.pdf. The RMRG was formed after the dissolution of the Inland Power Pool. The RMRG and recent Emergency Assistance Operating Agreement with PNM provide evidence of PSCo’s willingness and ability to enter into new interchange agreements when necessary.

See file: *PSC-PLN-Emergency Assistance Overview*

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| Author: Bob Staton | Approved: Bob Staton |
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See file: *RMRG Correspondence*

See file: *PSC-EVD-B5 PSCo_PNM Energy Assistance Operating Agreement*

- R7.3.** The Transmission Operator and Balancing Authority shall coordinate transmission and generator maintenance schedules to maximize capacity or conserve the fuel in short supply. (This includes water for hydro generators.)

Compliance R7.3

The Rocky Mountain – Desert Southwest Reliability Coordinator (RDRC), as the Regional Reliability Coordinator for PSCO, has unique coordination procedures to facilitate and ensure accurate and timely dissemination of critical information. These procedures are based on the legal contracts and/or other procedures between RDRC, PSCO and the other BAs, TOPs, or Entities in the region. Transmission and generator maintenance schedules are coordinated by RDRC and facilitated through the *Rocky Mountain – Desert Southwest Reliability Coordination Communication and Operating Procedures*. This document provides guidelines for generating and transmission facilities to communicate to RDRC all planned maintenance. PSCO’s internal coordination procedures are described in the following documents.

See file: *PSC-PRO-PSCo F-003 Go Max Alarm Procedure Manual and Testing*

An example of the weekly Go Max test results is attached.

See file: *PSC-EVD-Weekly Go Max Test 05 10 2008*

See file: *PSC-PLN-PSCo Emergency Response Guidelines*

See file: *PSC-PRO-PSCo A-010 Operational Planning Near Term and Seasonal Study Process*

See file: *PSC-PRO-PSCo A-011 Day Ahead Operations Planning*

See file: *PSC-POL-PSCo Day-Ahead Planning Process (2) (2)*

- R7.4.** The Transmission Operator and Balancing Authority shall arrange deliveries of electrical energy or fuel from remote systems through normal operating channels.


Compliance R7.4

The NSP, SPS and PSCO Power System Traders will request, as required, that the Real-time Trading group secure energy from remote systems through normal operating channels. In order for the Real-time trading group to procure energy from remote systems, the Company maintains access to various Transmission OASIS web-sites and upholds contracts, enabling agreements and credit with various parties to facilitate energy transactions. PSCO also has in place emergency fuel supply planning and procurement procedures.

See file: *XEL-POL-EFS-2.800P Fuel Supply Disturbance Reporting*

See file: *XEL-POL-EFS-2.801P Fuel Supply Disturbance Reporting (NG and FO) 053.doc*

See file: *PSC-PRO-Gas Purchasing Procedures*

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See file: *PSC-PRO-Fuel Oil Purchasing Procedures*

See file: *XEL-PRO-Coal Supply Planning Procedure EFS 2-804P*

See file: *XEL-PRO-Gas Supply Planning Procedure EFS 2-805P*

See file: *PSC-POL-ESCO_NERC_Compliance_Program_EOP-001 R 3 1 and R7 2-7 4 (XCEL) r 2*

See file: *PSC-PRO-PSCo A-010 Operational Planning Near Term and Seasonal Study Process*

See file: *PSC-PRO-PSCo A-011 Day Ahead Operations Planning*

See file: *PSC-POL-PSCo Day-Ahead Planning Process (2) (2)*

C. Measures

M1. The Transmission Operator and Balancing Authority shall have its emergency plans available for review by the Regional Reliability Organization at all times.

M2. The Transmission Operator and Balancing Authority shall have its two most recent annual self-assessments available for review by the Regional Reliability Organization at all times.

D. Compliance

1. Compliance Monitoring Process

1.1. Compliance Monitoring Responsibility

Regional Reliability Organization

1.2. Compliance Monitoring Period and Reset Timeframes

The Regional Reliability Organization shall review and evaluate emergency plans every three years to ensure that the plans consider the applicable elements of Attachment 1- EOP-001-0.


The Regional Reliability Organization may elect to request self-certification of the Transmission Operator and Balancing Authority in years that the full review is not done.

Reset: one calendar year

1.3. Data Retention

Current plan available at all times

1.4. Additional Compliance Information

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Not specified.

2. Levels of Non-Compliance for Transmission Operator and Balancing Authority:

2.1. Level 1: One of the applicable elements of Attachment 1-EOP-001-0 has not been addressed in the emergency plans.

2.2. Level 2: Two of the applicable elements of Attachment 1-EOP-001-0 have not been addressed in the emergency plans.

2.3. Level 3: Three of the applicable elements of Attachment 1-EOP-001-0 have not been addressed in the emergency plans.

2.4. Level 4: Four or more of the applicable elements of Attachment 1-EOP-001-0 have not been addressed in the emergency plans.

E. Regional Differences

None identified.