



NERC ID(s):	<b>NCR08013</b>		
Registered Entity Name :	<b>Commonwealth Edison Company</b>		
Registered Entity Acronym :	<b>ComEd</b>		
Reliability Standards Scope:	<b>Compliance Operations (FERC Order 693) Audit Report</b>		
Compliance Monitoring Process:	<b>Compliance Audit</b>		
Distribution:	<b>Public Version. Confidential Information Has Been Removed, Including Privileged and Critical Energy Infrastructure Information.</b>		
Lead Region:	<b>ReliabilityFirst (RF)</b>		
Date of Opening Presentation:	<b>April 23, 2015</b>	Date of Closing Presentation:	<b>April 23, 2015</b>
Date of Report:	<b>May 15, 2015</b>	IP Date:	<b>2015</b>
Possible Violations Identified:	<b>0</b>		
Jurisdiction:	<b>United States</b>		

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## I. Executive Summary

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ReliabilityFirst (RF) conducted an Operations & Planning compliance audit engagement of Commonwealth Edison Company (ComEd), NCR08013, on April 23, 2015.

At the time of the compliance engagement, ComEd was registered for the functions of DP, LSE, PSE, and TO.

PJM Interconnection, LLC (PJM, NCR00879) is the BA, TOP, and RC for ComEd. ComEd performs TOP functions for PJM in accordance with the *PJM TO/TOP Matrix of Shared or Assigned Tasks*. Those tasks were not included in the scope of this compliance engagement.

The compliance team evaluated ComEd for compliance with 36 requirements in the 2015 NERC Compliance Monitoring and Enforcement Program (CMEP) and the ReliabilityFirst CMEP Implementation Plan. The compliance team assessed compliance with the NERC Reliability Standards applicable for the period of October 16, 2009 to April 23, 2015. The compliance team reviewed and evaluated all evidence provided by ComEd and assessed compliance with the Reliability Standards applicable to ComEd. Based on the evidence provided, the compliance team's findings are summarized below:

Summary of Findings			
	Possible Violation (PV)	Open Enforcement Action (OEA)*	Total
Reliability Standard Requirements	0	4	4

\*OEAs with newly identified PVs are counted in the PV column only; not in the OEA column.

\*OEAs without newly identified PVs are counted in the OEA column.

The Team notified ComEd of:

- 1 Recommendation
- 1 Positive Observation

The findings included in this report are the same as the findings presented to ComEd during the exit briefing.

There were no open mitigation plans; therefore, none were reviewed by the compliance team.

The team lead certifies that the compliance team adhered to all the applicable requirements in the NERC Rules of Procedure (ROP) and the CMEP.

## II. Compliance Process

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The compliance process steps are detailed in the NERC Rules of Procedure, the NERC CMEP, and the ReliabilityFirst CMEP Implementation Plan. The CMEP generally conforms to the United States Government Auditing Standards and other generally accepted audit practices.

### *Objectives*

All registered entities are subject to compliance assessments with all of the reliability standards applicable to the functions for which the registered entity is registered in the Region(s) performing the assessment. The objectives are to:

- Review compliance with the requirements of the Reliability Standards applicable to ComEd based on the functions that ComEd is registered to perform;
- Validate compliance for the appropriate NERC Reliability Standards identified through usage of the entity's Inherent Risk Assessment;
- Validate compliance for additional NERC and RF identified standards in the 2015 ReliabilityFirst CMEP IP;
- Validate evidence of self-reported violations and previous self-certifications;
- Observe and document ComEd's compliance program and culture.

## Scope

The scope of this compliance engagement included the NERC Reliability Standards from the ERO CMEP Implementation Plan, ReliabilityFirst CMEP Implementation Plan, and Inherent Risk Assessment (IRA) of the Registered Entity. The standards and requirements in the scope for this compliance engagement are illustrated in the table below:

Scope	
Reliability Standard	Requirement
EOP-004-2	R1, R3
EOP-005-2	R11
FAC-001-1	R4
FAC-002-1	R1, R1.1, R1.2, R1.3, R1.4, R1.5
FAC-003-3	R3, R5, R6
FAC-008-3	R8
NUC-001-2.1	R2, R3, R4, R4.1, R4.2, R4.3, R6, R8, R9, R9.2, R9.2.1, R9.2.2, R9.2.3, R9.3, R9.3.1, R9.3.2, R9.3.3, R9.3.4, R9.3.5, R9.3.6, R9.3.7, R9.4, R9.4.1, R9.4.2, R9.4.3, R9.4.4, R9.4.5
PRC-004-2.1a	R1
PRC-005-1.1b	R1, R1.1, R1.2, R2, R2.1, R2.2
PRC-006-1	R8, R9, R10
PRC-008-0	R1, R2
PRC-010-0	R1, R1.1, R1.1.1, R1.1.2, R1.1.3
PRC-011-0	R1, R1.1, R1.1.1, R1.1.2, R1.1.3, R1.1.4, R1.2, R1.3, R1.4, R1.5, R1.6, R2
PRC-015-0	R1, R2, R3
PRC-016-0.1	R1, R2
PRC-022-1	R1, R1.2, R1.5
PRC-023-3	R1, R2, R3, R4

The compliance team did not expand the scope of the compliance engagement beyond what was stated in the notification letter.

### ***Confidentiality and Conflict of Interest***

Confidentiality and conflict of interest of the compliance team are governed under the RF Delegation Agreement with NERC, and Section 1500 of the NERC Rules of Procedure. ComEd was informed of RF's obligations and responsibilities under the agreement and procedures. The work history for each compliance team member was provided to ComEd, who was given an opportunity to object to a compliance team member's participation on the basis of a possible conflict of interest or the existence of other circumstances that could interfere with a compliance team member's impartial performance of duties. ComEd did not submit any objections by the stated 15-day objection due date and accepted the compliance team participants without objection. There were no denials or access limitations placed upon this compliance team by ComEd.

### ***Methodology***

The compliance team reviewed the evidence submitted by ComEd and assessed compliance with requirements of the applicable Reliability Standards. RF provided ComEd with a Request for Information (RFI) prior to commencement of the compliance engagement. Additional evidence could be submitted until the agreed-upon deadline prior to the exit briefing. After that date, only data or information that was relevant to the content of the report or its finding could be submitted with the agreement of the team lead.

The compliance team reviewed documentation provided by ComEd, requested additional evidence, and sought clarification from subject matter experts during the compliance engagement. Evidence submitted in the form of policies, procedures, emails, logs, studies, data sheets, etc., were validated, substantiated, and cross-checked for accuracy, as appropriate. Where sampling is applicable to a requirement, the sample set was determined by a statistical methodology, along with the compliance team's professional judgment.

Findings were based on the compliance team's professional judgment, knowledge of the bulk electric system (BES), the NERC Reliability Standards, the facts, and

documentation that was reviewed. All findings were developed based upon the consensus of the compliance team.

### ***Company Profile***

Exelon Corporation is ComEd's parent company and one of the nation's largest electric companies with approximately 27,000 employees. Exelon's family of companies includes energy generation, power marketing, transmission, and energy delivery.

ComEd is a transmission and energy delivery (wires only) business serving 3.8 million electric customers in 11,525 square miles of northern Illinois.

ComEd owns transmission and distribution facilities that range from 4kV to 765 kV. ComEd's transmission facilities include 90 miles of 765 kV transmission lines, 2,468 miles of 345 kV transmission lines, and 2,708 miles of 138 kV transmission lines. ComEd interconnects with the following utilities:

- American Transmission Company (ATC)
- ITC Midwest, LLC
- Ameren
- American Electric Power (AEP)
- Northern Indiana Public Service (NIPSCO)
- MidAmerican Electric (MEC)

The all-time electric summer peak load for the ComEd area is 23,753 MW.

Although ComEd does not own or operate any generation, approximately 27,000 MW of generating capacity operate within the ComEd footprint.

- Exelon Generation: 10 nuclear units, 1 combustion turbine facility (8 units)
- NRG: 9 fossil units & 9 combustion turbines
- Equipower: 2 fossil units
- 33 other IPP facilities within the ComEd footprint (combustion natural gas, combined cycle, simple cycle, wind).

## Participants

The following is a list of all personnel from the RF compliance team and ComEd staff directly involved during the meetings and interviews:

ReliabilityFirst Team	
Role	Entity
Team Lead	ReliabilityFirst
Team Member	ReliabilityFirst-Contractor

Registered Entity Participants	
Role	Entity
VP Transmission Strategy & Compliance	Exelon
VP Transmission & Substation & ComEd NERC Registered Officer	ComEd
Assistant General Counsel	Exelon
Business Analyst	ComEd
Contractor	ComEd
Director NERC Compliance Program	Exelon
Director Transmission & Substation Engineering	ComEd
Director Transmission Operations & Planning	ComEd
Manager Compliance	ComEd
Manager Demand Response & Dynamic Planning	ComEd
Manager Design Engineering	ComEd
Manager Design Engineering	ComEd
Manager Design Engineering	ComEd
Manager Interconnection & System Studies	ComEd
Manager Long Range Planning	ComEd
Manager NERC Compliance Program	Exelon
Manager Operations & Support	ComEd
Manager Relay	ComEd
Manager Relay & Protection Engineering	ComEd
Manager Testing	ComEd



Manager Testing	ComEd
Manager Testing	ComEd
Manager Transmission Control	ComEd
Manager Transmission Reinforcement	ComEd
Manager Vegetation Management	ComEd
Principal Compliance Specialist	ComEd
Principal Compliance Specialist	ComEd
Principal Compliance Specialist	ComEd
Principal Contract Specialist	ComEd
Principal Engineer	ComEd
Principal Engineer	ComEd
Principal NERC Compliance Specialist	Exelon
Principal TG Support Specialist	ComEd
Principal Work Plan Coordinator	ComEd
Senior Engineer	ComEd
Senior Engineer	ComEd
Senior Engineering Technical Specialist	ComEd
Senior Engineering Technical Specialist	ComEd
Senior Engineering Technical Specialist	ComEd
Senior Engineering Technical Specialist	ComEd
Senior Manager IT	Exelon
Principal Testing Group Support Specialist	ComEd
Senior Engineer	ComEd
Manager Predictive Maintenance	ComEd
Manager Predictive Maintenance	ComEd
Operations Coordinator	ComEd
Manager Substations	ComEd
Supervisor Substations	ComEd
Manager Design Engineering	ComEd
Manager Equipment Standards	ComEd
Senior Engineer	ComEd
Senior Engineer	ComEd
Principal Work Plan Coordinator	ComEd
Principal Engineer	ComEd

### **III. Compliance Findings**

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The following information details the compliance findings for the Reliability Standards and requirements identified in the scope of this compliance engagement, which may have Possible Violations or Open Enforcement Actions. All other reliability standards and requirements in the scope for this compliance engagement were tested without exception.

#### **PRC-005-1.1b**

**R1. Each Transmission Owner and any Distribution Provider that owns a transmission Protection System and each Generator Owner that owns a generation or generator interconnection Facility Protection System shall have a Protection System maintenance and testing program for Protection Systems that affect the reliability of the BES. The program shall include:**

**R1.1. Maintenance and testing intervals and their basis.**

**R1.2. Summary of maintenance and testing procedures.**

#### **Open Enforcement Action**

**R2. Each Transmission Owner and any Distribution Provider that owns a transmission Protection System and each Generator Owner that owns a generation Protection System shall provide documentation of its Protection System maintenance and testing program and the implementation of that program to its Regional Reliability Organization on request (within 30 calendar days). The documentation of the program implementation shall include:**

#### **Open Enforcement Action**

**R2.1. Evidence Protection System devices were maintained and tested within the defined intervals.**

#### **Open Enforcement Action**

## **PRC-008-0**

**R2. The Transmission Owner and Distribution Provider with a UFLS program (as required by its Regional Reliability Organization) shall implement its UFLS equipment maintenance and testing program and shall provide UFLS maintenance and testing program results to its Regional Reliability Organization and NERC on request (within 30 calendar days).**

### **Open Enforcement Action**

## **FAC-008 R8**

**R8. Each Transmission Owner (and each Generator Owner subject to Requirement R2) shall provide requested information as specified below (for its solely and jointly owned Facilities that are existing Facilities, new Facilities, modifications to existing Facilities and re-ratings of existing Facilities) to its associated Reliability Coordinator(s), Planning Coordinator(s),**

**R8.1. As scheduled by the requesting entities:**

**R8.1.1. Facility Ratings**

**R8.1.2 Identity of the most limiting equipment of the Facilities**

### **Open Enforcement Action**

## **IV. Recommendations**

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The compliance team identified and informed ComEd of 1 Recommendation.

## **V. Positive Observations**

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The compliance team identified and informed ComEd of 1 Positive Observation.

## VI. Compliance Culture

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The compliance team performed an assessment of ComEd's compliance culture in conjunction with the review process. The assessment was accomplished through a review of responses to the Internal Compliance Survey questionnaire and additional information that was gathered during interviews and observations.

ComEd has its internal compliance department with Exelon's corporate support. NERC Compliance at Exelon/ComEd is supported at the corporate level with dedicated oversight within each of the business units. At the corporate level, there is an Exelon Chief NERC Compliance Officer and a NERC Steering Committee comprised executive/senior management representatives from each Business Unit (ComEd), Legal, Ethics and Compliance, Information Technology, HR and Security personnel.

ComEd stated in the Pre-Audit Survey that it has a Compliance Steering Committee comprised senior management from Transmission & Substation, Human Resources, Transmission Operations and Planning, Support Services, Information Technology, Energy Acquisition, Regulatory Affairs, and Corporate Security oversees ComEd's NERC compliance. Many of the above staff were present during the opening and closing presentation or participated in the audit interviews as necessary.

The ComEd Compliance Department has a manager and two principal compliance specialists who interface with the identified SMEs for each standard in the applicable business organizations. ComEd included comprehensive documentation of its compliance policy and procedures and organizational structure in the Pre-audit Survey.

ComEd provided complete RSAWs and reasonably completed and organized evidence supporting its compliance to the NERC Standards. ComEd provided complete and timely responses to the compliance team questions and evidence requests. ComEd made the appropriate SMEs available to the compliance team as needed. The ComEd SMEs were knowledgeable and responded to the compliance team interviews in a professional manner. The SME participation demonstrated that ComEd's compliance program is distributed throughout the organization.

ComEd is a large utility that provided large volumes of evidence that were reviewed for the compliance engagement. ComEd assisted with the compliance engagement process by organizing and annotating the evidence to clearly indicate information that

was relevant in supporting its compliance to the NERC Standards.

ComEd reviewed its data and self-reported Possible Violations for PRC-005-1.1b and PRC-008-0, which are Open Enforcement Actions in this compliance engagement. Self-discovery is an indication of a comprehensive compliance program and good internal controls.

The compliance team found that ComEd provided the required information in a timely manner and has a vigorous compliance program.

Additional information pertaining to the compliance culture of ComEd can found in the Compliance Pre-Audit Survey.