

May 31, 2023

VIA ELECTRONIC FILING

Ms. Kimberly D. Bose
Secretary
Federal Energy Regulatory Commission
888 First Street, N.E.
Washington, DC 20426

Re: **NERC Full Notice of Penalty regarding the Exelon Companies,
FERC Docket No. NP23-_-000**

Dear Ms. Bose:

The North American Electric Reliability Corporation (NERC) hereby provides this Notice of Penalty¹ regarding Atlantic City Electric Company (ACE), Delmarva Power & Light Company (DPL), Potomac Electric Power Company (Pepco) (collectively, the “PHI Companies”), and Baltimore Gas and Electric Company (BGE), Commonwealth Edison Company (ComEd), PECO Energy Company (PECO) (collectively with the PHI Companies, the “Exelon Companies”), and referred to herein as the Entity, NERC Registry ID# NCR00688, NCR00752, NCR00881, NCR00689, NCR08013, and NCR08026,² in accordance with the Federal Energy Regulatory Commission’s (Commission or FERC) rules, regulations, and orders, as well as NERC’s Rules of Procedure including Appendix 4C (NERC Compliance Monitoring and Enforcement Program (CMEP)).³

NERC is filing this Notice of Penalty, with information and details regarding the nature and resolution of the violations,⁴ with the Commission because ReliabilityFirst Corporation (ReliabilityFirst) and the Entity

¹ *Rules Concerning Certification of the Electric Reliability Organization; and Procedures for the Establishment, Approval, and Enforcement of Electric Reliability Standards, Order No. 672, 114 FERC ¶ 61,104, order on reh’g, Order No. 672-A, 114 FERC ¶ 61,328 (2006); Notice of New Docket Prefix “NP” for Notices of Penalty Filed by the N. Am. Elec. Reliability Corp., Docket No. RM05-30-000 (February 7, 2008); Mandatory Reliability Standards for the Bulk-Power System, Order No. 693, 118 FERC ¶ 61,218, order on reh’g, Order No. 693-A, 120 FERC ¶ 61,053 (2007).*

² The Entity was included on the NERC Compliance Registry as follows: NCR00688, NCR00752, and NCR00881 (Distribution Provider (DP) and Transmission Owner (TO) on May 30, 2007); and NCR00689 (Distribution Provider (DP) and Transmission Owner (TO) on May 30, 2007), NCR08013 (Distribution Provider (DP) on June 27, 2007 and Transmission Owner (TO) on May 30, 2007), and NCR08026 (Distribution Provider (DP) on June 27, 2007 and Transmission Owner (TO) on June 27, 2007).

³ See 18 C.F.R § 39.7(c)(2) and 18 C.F.R § 39.7(d).

⁴ For purposes of this document, each violation at issue is described as a “violation,” regardless of its procedural posture and whether it was a possible, alleged, or confirmed violation.

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have entered into a Settlement Agreement to resolve all outstanding issues arising from ReliabilityFirst’s determination and findings of the violations of the Operations and Planning Reliability Standards listed below.

According to the Settlement Agreement, the Entity neither admits nor denies the violations, but has agreed to the assessed penalty of one million eight hundred thousand dollars (\$1,800,000), in addition to other actions to mitigate the instant violations and facilitate future compliance under the terms and conditions of the Settlement Agreement.

Statement of Findings Underlying the Violations

This Notice of Penalty incorporates the findings and justifications set forth in the Settlement Agreement, by and between ReliabilityFirst and the Entity. The details of the findings and basis for the penalty are set forth in the Settlement Agreement and herein.

In accordance with Section 39.7 of the Commission’s regulations, 18 C.F.R. § 39.7 (2023), NERC provides the following summary table identifying each violation of a Reliability Standard resolved by the Settlement Agreement. Further information on the subject violations is set forth in the Settlement Agreement and herein.

Violation(s) Determined and Discovery Method								
*SR = Self-Report / SC = Self-Certification / CA = Compliance Audit / SPC = Spot Check / CI = Compliance Investigation								
NERC Violation ID	Standard	Req.	VRF/VSL	Applicable Function(s)	Discovery Method* & Date	Violation Start-End Date	Risk	Penalty Amount
RFC2020023212	FAC-009-1	R1	Medium/ Severe	TO	SR 4/15/20	6/18/2007 to 3/31/2021	Serious	\$1.8M
RFC2020023213	FAC-009-1	R1	Medium/ Severe	TO	SR 4/15/20	6/18/2007 to 3/31/2021	Serious	
RFC2020023214	FAC-009-1	R1	Medium/ Severe	TO	SR 4/15/20	6/18/2007 to 3/31/2021	Serious	
RFC2020023644	FAC-009-1	R1	Medium/ High	TO	SR 7/7/20	6/18/2007 to 12/31/2022	Moderate	
RFC2020023645	FAC-009-1	R1	Medium/ High	TO	SR 7/6/20	6/18/2007 to 12/31/2022	Moderate	
RFC2020023643	FAC-009-1	R1	Medium/ Severe	TO	SR 7/7/20	6/27/2007 to 12/31/2022	Serious	

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Information About the Entities

Exelon Corporation (Exelon) is the nation's largest utility company, serving more than 10 million customers through six fully regulated transmission and distribution utilities: ACE, BGE, ComEd, DPL, PECO, and Pepco.

ACE provides electric service to approximately 560,000 customers in southern New Jersey. ACE owns approximately 220 miles of 230 kV transmission lines and 268 miles of 138 kV transmission lines. ACE is a subsidiary of Pepco Holdings, LLC (PH), a holding company comprised of subsidiaries that include ACE, DPL, and Pepco. Exelon purchased PH in 2016.

DPL provides energy to 532,000 electric delivery customers in Delaware and the Delmarva Peninsula and to approximately 136,000 natural gas delivery customers in northern Delaware. DPL owns approximately 16 miles of 500kV transmission lines, 467 miles of 230 kV transmission lines, and 497 miles of 138 kV transmission lines.

Pepco provides electric service to approximately 894,000 residential and commercial customers in Washington, D.C., Montgomery, and Prince George's counties in Maryland. Pepco owns approximately 141 miles of 500 kV transmission lines, 747 miles of 230 kV transmission lines, 72 miles of 138 kV transmission lines, and 38 miles of 115 kV transmission lines.

BGE serves more than 1.25 million business and residential electric customers in the Baltimore, Maryland area. BGE's service territory covers over 2,300 square miles and BGE operates approximately 26,000 miles of electric transmission and distribution lines.

ComEd serves approximately 4.1 million electric customers in Northern Illinois. ComEd utilizes a total of 70,000 miles of distribution and transmission lines, of which ComEd owns approximately 90 miles of 765 kV transmission lines, 2,468 miles of 345 kV transmission lines, and 2,708 miles of 138 kV transmission lines.

PECO serves 1.6 million electric customers in Southeastern Pennsylvania via 29,000 miles of distribution and transmission lines, of which PECO owns approximately 188 miles of 500 kV transmission lines, 540 miles of 230 kV transmission lines, and 157 miles of 138 kV transmission lines.

Executive Summary

The Settlement Agreement resolves six violations of FAC-009-1 R1 (one violation per registration), two of which posed a moderate risk (BGE and ComEd), and four of which posed a serious risk (the PHI Companies and PECO) to the reliability of the bulk power system (BPS). Details regarding the violations are organized into two groups: (a) the PHI Companies; and (b) BGE, ComEd, and PECO.

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PHI Companies

The PHI Companies identified their Facility Rating issues in 2019 while investigating what initially appeared to be an isolated issue that occurred when temporarily placing a transmission line back in service. While investigating that issue, the PHI Companies discovered errors in their Facility Ratings that caused them to expand the scope of their review and eventually commit to perform a comprehensive evaluation of compliance with FAC-009-1 R1 across all of their applicable Facilities. In total, the PHI Companies discovered errors at 235 out of their 349 total Facilities (67%), with 189 Facilities (54%) requiring a rating decrease ranging from less than 1% to 66%. Additionally, the PHI Companies identified 12 Facilities that either operated above or near the correct Facility Rating (i.e., more than 95% of the correct Facility Rating) over the last five years, with only one of those Facilities exceeding its emergency rating. The violations are indicative of a long-standing, systemic issue with Facility Ratings and include instances that (a) were identified through an initial extent of condition conducted with third-party contractors, which included full field walkdowns of all Facilities; (b) were identified through a preliminary quality assurance assessment of that initial extent of condition; and (c) were and will be identified through a second extent of condition review that is ongoing and will be completed by the end of 2023, which will include another round of full field walkdowns of all Facilities.

BGE, ComEd, and PECO

The results of the PHI Companies' extent of condition review prompted BGE, ComEd, and PECO to perform their own extent of condition reviews across all applicable Facilities, beginning by reviewing a sample of their total Facilities in early 2020 with full field walkdowns. This review found numerous instances of inaccurate Facility Ratings and several instances of Facilities operating above the correct rating but not exceeding the applicable emergency rating over the last five years. The issue resulted in 34 BGE Facilities (12%), 111 ComEd Facilities (11%), and 133 PECO Facilities (53%) requiring a Facility Rating change. Of these, 20 BGE Facilities, 49 ComEd Facilities, and 84 PECO Facilities required a decrease ranging from 0.1% to 51.6%. Based on the results of those initial reviews, BGE, ComEd, and PECO each completed a full extent of condition review, including full field walkdowns, of all of their Facilities by the end of 2022.

FAC-009-1 R1 – Violation IDs RFC2020023212, RFC2020023213, RFC2020023214 (PHI Companies)

ReliabilityFirst determined that the PHI Companies did not maintain accurate Facility Ratings.

The cause of this violation was insufficient internal controls throughout the PHI Companies' Facility Ratings program and processes. Contributing causes included a lack of clear overall ownership and accountability for the transmission equipment and Facility Ratings program; communication gaps

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between teams that increased the risk of errors; and lack of formal, comprehensive training on employee responsibilities in the process.

ReliabilityFirst determined that these violations posed a serious or substantial risk to the reliability of the BPS. Attachment A includes the facts regarding the violations that ReliabilityFirst considered in its risk assessment.

The Entity submitted its Mitigation Plans to address the referenced violations. Attachment A includes a description of the mitigation activities the Entity took to address this violation. Copies of the Mitigation Plans are included as Attachment 7.

The Entity certified that it had completed all mitigation activities. ReliabilityFirst verified that the Entity had completed all mitigation activities. Attachments A and 11-13 provide specific information on ReliabilityFirst's verification of the Entity's completion of the activities.

FAC-009-1 R1 – Violation IDs RFC2020023644, RFC2020023645, RFC2020023643 (BGE, ComEd, PECO)

ReliabilityFirst determined that the BGE, ComEd, and PECO did not maintain accurate Facility Ratings.

The cause of this violation was insufficient internal controls to verify accuracy in information recording throughout each company's Facility Ratings program and processes. Contributing causes included failure to maintain or confirm facility baselines, including those developed by third parties; asset and contractor change management; facility ratings database discrepancies; and documentation quality issues.

ReliabilityFirst determined that the BGE and ComEd violations posed a moderate and not serious or substantial risk to the reliability of the BPS, and that the PECO violation posed a serious or substantial risk to the reliability of the BPS. Attachment A includes the facts regarding the violation that ReliabilityFirst considered in its risk assessment.

The Entity submitted its Mitigation Plans to address the referenced violation. Attachment A includes a description of the mitigation activities the Entity took to address this violation. Copies of the Mitigation Plans are included as Attachments 17-19.

The Entity certified that it had completed all mitigation activities. ReliabilityFirst verified that the Entity had completed all mitigation activities. Attachments A and 21, 23, and 25 provide specific information on ReliabilityFirst's verification of the Entity's completion of the activities.

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Regional Entity's Basis for Penalty

According to the Settlement Agreement, ReliabilityFirst has assessed a penalty of one million eight hundred thousand dollars (\$1,800,000) for the referenced violations. In reaching this determination, ReliabilityFirst considered the following factors:

1. Four of the six violations posed a serious or substantial risk to the reliability of the BPS, as discussed in Attachment A;
2. ReliabilityFirst considered the Entity's compliance history with FAC-008/9 as an aggravating factor in the penalty determination;
3. While the Entity formally self-reported the violations after receiving notification of an upcoming audit, it had informally notified ReliabilityFirst of several potential issues prior to the notification letter, which ReliabilityFirst determined should warrant mitigating credit;
4. The Entity was highly cooperative throughout the compliance enforcement process; and
5. There were no other mitigating or aggravating factors or extenuating circumstances that would affect the assessed penalty/disposition method.

After consideration of the above factors, ReliabilityFirst determined that, in this instance, the penalty amount of one million eight hundred thousand dollars (\$1,800,000) is appropriate and bears a reasonable relation to the seriousness and duration of the violations.

Statement Describing the Assessed Penalty, Sanction, or Enforcement Action Imposed⁵

Basis for Determination

Taking into consideration the Commission's direction in Order No. 693, the NERC Sanction Guidelines and the Commission's July 3, 2008, October 26, 2009 and August 27, 2010 Guidance Orders,⁶ NERC Enforcement staff reviewed the applicable requirements of the violations at issue, and considered the factors listed above.

For the foregoing reasons, NERC Enforcement staff approved the resolution between ReliabilityFirst and the Entity and believes that the assessed penalty of one million eight hundred thousand dollars

⁵ See 18 C.F.R. § 39.7(d)(4).

⁶ N. Am. Elec. Reliability Corp., "Guidance Order on Reliability Notices of Penalty," 124 FERC ¶ 61,015 (2008); N. Am. Elec. Reliability Corp., "Further Guidance Order on Reliability Notices of Penalty," 129 FERC ¶ 61,069 (2009); N. Am. Elec. Reliability Corp., "Notice of No Further Review and Guidance Order," 132 FERC ¶ 61,182 (2010).

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(\$1,800,000) is appropriate for the violations and circumstances at issue, and is consistent with NERC's goal to promote and ensure reliability of the BPS.

Pursuant to 18 C.F.R. § 39.7(e), the penalty will be effective upon expiration of the 30-day period following the filing of this Notice of Penalty with FERC, or, if FERC decides to review the penalty, upon final determination by FERC.

Attachments to be Included as Part of this Notice of Penalty

The attachments to be included as part of this Notice of Penalty are the following documents:

1. Settlement Agreement by and between ReliabilityFirst and the Entity executed May 5, 2023, included as Attachment A;
2. Record documents for the violation of FAC-009-1 R1 (ACE) (RFC2020023212):
 - A. The Entity's Violation Discovery Record dated April 15, 2020, and the Entity's Self Report dated April 15, 2020, included as Attachments 1 and 4 to the Settlement Agreement;
 - B. The Entity's Mitigation Plan designated as RFCMIT015134 submitted June 4, 2020, included as Attachment 7 to the Settlement Agreement;
 - C. The Entity's Certification of Mitigation Plan Completion dated April 14, 2021, included as Attachment 8 to the Settlement Agreement;
 - D. ReliabilityFirst's Verification of Mitigation Plan Completion dated June 21, 2021, included as Attachment 11 to the Settlement Agreement.
3. Record documents for the violation of FAC-009-01 R1 (DPL) (RFC2020023213):
 - E. The Entity's Violation Discovery Record dated April 15, 2020, and the Entity's Self Report dated April 15, 2020, included as Attachments 2 and 5 to the Settlement Agreement;
 - F. The Entity's Mitigation Plan designated as RFCMIT015135 submitted June 4, 2020, included as Attachment 7 to the Settlement Agreement;
 - G. The Entity's Certification of Mitigation Plan Completion dated April 14, 2021, included as Attachment 9 to the Settlement Agreement;
 - H. ReliabilityFirst's Verification of Mitigation Plan Completion dated June 21, 2021, included as Attachment 12 to the Settlement Agreement.
4. Record documents for the violation of FAC-009-1 R1 (PEPCO) (RFC2020023214):

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- I. The Entity's Violation Detail dated April 15, 2020, and the Entity's Self Report dated April 15, 2020, included as Attachments 3 and 6 to the Settlement Agreement;
 - J. The Entity's Mitigation Plan designated as RFCMIT015136 submitted June 4, 2020, included as Attachment 7 to the Settlement Agreement;
 - K. The Entity's Certification of Mitigation Plan Completion dated April 14, 2021, included as Attachment 10 to the Settlement Agreement;
 - L. ReliabilityFirst's Verification of Mitigation Plan Completion dated June 21, 2021, included as Attachment 13 to the Settlement Agreement.
5. Record documents for the violation of FAC-009-1 R1 (BGE) (RFC2020023644):
- M. The Entity's Self Report dated July 7, 2020, included as Attachment 14 to the Settlement Agreement;
 - N. The Entity's Mitigation Plan designated as RFCMIT015302 submitted October 15, 2020, included as Attachment 17 to the Settlement Agreement;
 - O. The Entity's Certification of Mitigation Plan Completion dated November 29, 2021, included as Attachment 20 to the Settlement Agreement;
 - P. ReliabilityFirst's Verification of Mitigation Plan Completion dated January 12, 2022, included as Attachment 21 to the Settlement Agreement.
6. Record documents for the violation of FAC-009-1 R1 (ComEd) (RFC2020023645):
- Q. The Entity's Self Report dated July 6, 2020, included as Attachment 15 to the Settlement Agreement;
 - R. The Entity's Mitigation Plan designated as RFCMIT015304 submitted October 15, 2020, included as Attachment 18 to the Settlement Agreement;
 - S. The Entity's Certification of Mitigation Plan Completion dated December 2, 2021, included as Attachment 22 to the Settlement Agreement;
 - T. ReliabilityFirst's Verification of Mitigation Plan Completion dated January 20, 2022, included as Attachment 23 to the Settlement Agreement.
7. Record documents for the violation of FAC-009-1 R1 (PECO) (RFC2020023643):
- U. The Entity's Self Report dated July 7, 2020, included as Attachment 16 to the Settlement Agreement;
 - V. The Entity's Mitigation Plan designated as RFCMIT015303 submitted October 15, 2020, included as Attachment 19 to the Settlement Agreement;

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- W. The Entity's Certification of Mitigation Plan Completion dated November 15, 2021, included as Attachment 24 to the Settlement Agreement;
- X. ReliabilityFirst's Verification of Mitigation Plan Completion dated December 24, 2021, included as Attachment 25 to the Settlement Agreement.

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

<p>*Persons to be included on the Commission’s service list are indicated with an asterisk. NERC requests waiver of the Commission’s rules and regulations to permit the inclusion of more than two people on the service list.</p> <p>Exelon Corporation, BSC 1310 Point Street, 19th Floor Baltimore, MD 21231</p> <p>Paul Ackerman* Associate General Counsel paul.ackerman@exeloncorp.com Phone: 410-470-5831</p> <p>Kevin Ryan* Assistant General Counsel kevin.ryan@exeloncorp.com Phone: 410-470-1402</p> <p>Exelon Corporation, BSC Two Lincoln Centre Oakbrook Terrace, IL 60181</p> <p>Kinte Whitehead* kinte.whitehead@exeloncorp.com Phone: 630-576-6364</p> <p>Greg Campbell gregory.campbell@exeloncorp.com Phone: 667-313-3712</p> <p>Exelon Corporation, BSC 10 S Dearborn Street Chicago, IL 60657</p>	<p>Teresina Stasko* Assistant General Counsel and Director of Enforcement North American Electric Reliability Corporation 1401 H Street NW, Suite 410 Washington, DC 20005 (202) 400-3000 (202) 644-8099 – facsimile teresina.stasko@nerc.net</p> <p>James McGrane* Senior Counsel North American Electric Reliability Corporation 1401 H Street NW, Suite 410 Washington, DC 20005 (202) 400-3000 (202) 644-8099 – facsimile james.mcgrane@nerc.net</p> <p>Caelyn Palmer* Associate Counsel North American Electric Reliability Corporation 1401 H Street NW, Suite 410 Washington, DC 20005 (202) 400-3000 (202) 644-8099 – facsimile caelyn.palmer@nerc.net</p>
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Conclusion

NERC respectfully requests that the Commission accept this Notice of Penalty as compliant with its rules, regulations, and orders.

Respectfully submitted,

/s/ Caelyn Palmer

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cc: Atlantic City Electric Company (ACE)
Delmarva Power & Light Company (DPL)
Potomac Electric Power Company (Pepco)
Baltimore Gas and Electric Company (BGE)
Commonwealth Edison Company (ComEd)
PECO Energy Company (PECO)
ReliabilityFirst Corporation

Attachments

ATTACHMENT A
Settlement Agreement by and between
ReliabilityFirst and the Exelon Companies
executed May 5, 2023



RELIABILITY FIRST

<i>In re:</i> ATLANTIC CITY ELECTRIC COMPANY	Violation ID Nos.:
	RFC2020023212 (FAC-009-1 R1)
DELMARVA POWER & LIGHT COMPANY	RFC2020023213 (FAC-009-1 R1)
	RFC2020023214 (FAC-009-1 R1)
POTOMAC ELECTRIC POWER COMPANY	RFC2020023644 (FAC-009-1 R1)
	RFC2020023645 (FAC-009-1 R1)
BALTIMORE GAS AND ELECTRIC COMPANY	RFC2020023643 (FAC-009-1 R1)
COMMONWEALTH EDISON COMPANY	
PECO ENERGY COMPANY	
NERC Registry ID Nos. NCR00688	
NCR00752	
NCR00881	
NCR00689	
NCR08013	
NCR08026	

**SETTLEMENT AGREEMENT
BETWEEN
RELIABILITYFIRST CORPORATION
AND
ATLANTIC CITY ELECTRIC COMPANY, DELMARVA POWER & LIGHT
COMPANY, POTOMAC ELECTRIC POWER COMPANY, BALTIMORE GAS AND
ELECTRIC COMPANY, COMMONWEALTH EDISON COMPANY, AND PECO
ENERGY COMPANY**

I. EXECUTIVE SUMMARY¹

1. ReliabilityFirst Corporation (ReliabilityFirst) and Atlantic City Electric Company (ACE), Delmarva Power & Light Company (DPL), Potomac Electric Power Company (Pepco) (ACE, DPL, and Pepco are sometimes collectively referred to herein as the “PHI Companies”), Baltimore Gas and Electric Company (BGE), Commonwealth Edison Company (ComEd), and PECO Energy Company (PECO) (BGE, ComEd, and PECO are sometimes collectively referred to herein with the PHI Companies as the “Exelon Companies”) enter into this Settlement Agreement (Agreement) to resolve alleged violations by the Exelon Companies of FAC-009-1 R1.² ReliabilityFirst and the Exelon Companies are sometimes collectively referred to herein as the “Parties.”
2. The Parties stipulate to the facts in this Agreement for the sole purpose of resolving the alleged violations. The Exelon Companies neither admit nor deny that these facts constitute alleged violations of FAC-009-1 R1.
3. This Agreement resolves six alleged violations of FAC-009-1 R1 (i.e., one alleged violation per registration), two of which posed a moderate risk (i.e., BGE and ComEd), and four of which posed a serious risk (i.e., the PHI Companies and PECO) to the reliability of the Bulk Electric System (BES). Details regarding these alleged violations follow and are organized into two groups: (a) the PHI Companies; and, (b) BGE, ComEd, and PECO.

The PHI Companies

4. The PHI Companies identified their Facility Rating issues in 2019 while investigating what initially appeared to be an isolated issue that occurred when temporarily placing a transmission line back in service. While investigating that issue, the PHI Companies discovered errors in their Facility Ratings that caused them to expand the scope of their review and eventually commit to perform a comprehensive evaluation of compliance with FAC-009-1 R1 across all of their applicable Facilities.
5. With respect to the PHI Companies, these alleged violations are indicative of a long-standing, systemic issue with Facility Ratings and include instances that (a) were identified through an initial extent of condition conducted with third-party contractors, which included full field walkdowns of all Facilities; (b) were identified through a preliminary quality assurance assessment of that initial extent of condition; and, (c) were and will be identified through a second extent of condition review that is ongoing and will be completed by the end of 2023, which

¹ This settlement agreement amends and replaces the prior settlement agreement executed on October 27, 2022, between ReliabilityFirst Corporation, Atlantic City Electric Company, Delmarva Power & Light Company, and Potomac Electric Power Company.

² This Agreement references the version of the Reliability Standard in effect at the time each alleged violation began. The Exelon Companies, however, committed to perform mitigating actions to comply with the most recent version of each Reliability Standard Requirement.

will include another round of full field walkdowns of all Facilities. More details regarding each of these efforts are included in the paragraphs that follow.

6. As a result of this initial, comprehensive extent of condition review completed in early 2021, including full field walkdowns of all Facilities, the PHI Companies discovered Facility Rating errors at 58% of their Facilities, with 49% of Facilities requiring rating decreases. Additionally, based upon a review of historical loading data, the PHI Companies discovered 11 Facilities that either operated above the correct Facility Rating, or operated near the correct Facility Rating (i.e., more than 95% of the correct Facility Rating) over the last five years. However, only one of those Facilities was operated above its emergency rating, and it was above this emergency rating for a total of 17 minutes.
7. Later in 2021, after completing this comprehensive extent of condition review, in which the PHI Companies utilized third-party contractors, the PHI Companies initiated their first comprehensive compliance monitoring assessment to evaluate the accuracy of their Facility Ratings and the effectiveness of their internal controls. Specifically, over the course of approximately 7 months, the PHI Companies went back into the field to verify and validate work performed by the third-party contractors during the initial 2021 extent of condition review. Additionally, as part of their corrective actions, the PHI Companies committed to convert their Facility Ratings database from Z-Tables, which were maintained separately at each operating company, to a new one common database, which will provide the PHI Companies with additional controls including automatic alerting for Facility Ratings based on the field work performed. While transitioning to the new ratings database, the PHI Companies instituted a rigorous data validation process to ensure that what is in the field matched what is in the Facility Ratings database.
8. This enhanced assessment (i.e., additional field walkdowns and the data validation process) resulted in the identification and correction of 32 additional Facility Rating issues that were not identified or processed during the third-party field walkdowns, including 18 instances where the Facility Rating was decreased. Additionally, the PHI Companies discovered that one of these Facilities was operated above its summer normal rating by 0.1% for 1 minute.
9. Including these additional findings, the overall total for Facility Ratings errors for the PHI Companies are as follows: 67% of Facilities required a change (i.e., either an increase or decrease), with 54% requiring a rating decrease, which ranged from less than 1% to 66%. Additionally, the PHI Companies identified 12 Facilities that either operated above the correct Facility Rating, or operated near the correct Facility Rating (i.e., more than 95% of the correct Facility Rating) over the last five years, with only one of those Facilities exceeding its emergency rating.
10. In response to these findings, the PHI Companies committed to perform several key corrective actions that are designed to optimize the sustainability of their Facility Ratings program going forward. These key corrective actions include efforts to (a) improve data accuracy; (b) enhance governance, oversight, and support for the

Facility Ratings program; (c) implement new tools (i.e., new common facility ratings database) to improve Facility Ratings accuracy; and, (d) implement improved processes, including multi-step peer reviews, checklists, and job aids, as well as periodic Facility Ratings training. Additionally, the PHI Companies committed to perform another complete extent of condition review of all of their Facilities, including field walkdowns, by the end of 2023. As of the time of this Agreement, the PHI Companies have completed preliminary planning and evaluations of third-party proposals as part of the ongoing second set of walkdowns and completed the initial sample set within fourth quarter 2022, and will complete field walkdowns and full reviews of all Facilities by December 2023.

BGE, ComEd, and PECO

11. The results of the PHI Companies' extent of condition review prompted BGE, ComEd, and PECO to perform their own extent of condition reviews across all of their applicable Facilities beginning by reviewing a sample of their total Facilities in early 2020, including full field walkdowns. Based on the results of those initial reviews, BGE, ComEd, and PECO each committed to performing a full extent of condition review, including full field walkdowns, of all of their Facilities by the end of 2022.
12. As of the time of this Agreement, details on the total Facility Ratings errors for each of these companies are as follows:
 - a. BGE reviewed 278 out of 278 total Facilities. The entity discovered that 34 Facilities (i.e., 12%) required a Facility Rating change (i.e., either an increase or a decrease), with twenty Facilities requiring a rating decrease, which ranged from 1% - 21.9%. The entity did not identify any Facilities that operated above the correct Facility Rating over the last five years.
 - b. ComEd reviewed 975 out of 975 total Facilities. The entity discovered that 111 Facilities (i.e., 11%) required a Facility Rating change, with 49 Facilities requiring a rating decrease, which ranged from 1.3% - 48.8%. Additionally, the entity identified two Facilities that operated above the correct Facility rating over the last five years, neither of which exceeded the applicable emergency rating.
 - c. PECO reviewed 251 out of 251 total Facilities. The entity discovered that 133 Facilities (i.e., 53%) required a Facility Rating change, with 84 Facilities requiring a rating decrease, which ranged from 0.1% - 51.6%. Additionally, the entity identified two Facilities that operated above the correct Facility rating over the last five years, neither of which exceeded the applicable emergency rating.
13. In response to these findings, BGE, ComEd, and PECO each committed to perform several key corrective actions that are designed to optimize the sustainability of their Facility Ratings program going forward. These key corrective actions include

efforts to (a) improve data accuracy; (b) enhance governance, oversight, and support for the Facility Ratings program; (c) implement new tools to improve Facility Ratings accuracy (e.g., transitioning to one common Facility Ratings database across the Exelon Companies); and, (d) implement improved processes, including multi-step peer reviews, checklists, and job aids, as well as periodic Facility Ratings training.

14. Based upon the foregoing, the Exelon Companies shall pay a monetary penalty of \$1,800,000.00 to ReliabilityFirst.

II. OVERVIEW OF THE EXELON COMPANIES

15. ACE provides electric service to approximately 560,000 customers in southern New Jersey. ACE owns approximately 220 miles of 230 kilovolt (kV) transmission lines and 268 miles of 138 kV transmission lines.
16. ACE is a subsidiary of Pepco Holdings, LLC (PH), a holding company comprised of subsidiaries that include ACE, DPL, and Pepco. PH is now owned by Exelon Corporation (Exelon). Exelon is the nation's largest utility company, serving more than 10 million customers through six fully regulated transmission and distribution utilities: ACE, BGE, ComEd, DPL, PECO, and Pepco.
17. DPL provides energy to 532,000 electric delivery customers in Delaware and the Delmarva Peninsula and to approximately 136,000 natural gas delivery customers in northern Delaware. DPL owns approximately 16 miles of 500kV transmission lines, 467 miles of 230 kV transmission lines, and 497 miles of 138 kV transmission lines.
18. Pepco provides electric service to approximately 894,000 residential and commercial customers in Washington, D.C., Montgomery, and Prince George's counties in Maryland. Pepco owns approximately 141 miles of 500 kV transmission lines, 747 miles of 230 kV transmission lines, 72 miles of 138 kV transmission lines, and 38 miles of 115 kV transmission lines.
19. BGE is based in Baltimore, Maryland and is an Exelon Corporation (Exelon) affiliated company. BGE serves more than 1.25 million business and residential electric customers. BGE's service territory covers over 2,300 square miles and BGE operates approximately 26,000 miles of electric transmission and distribution lines.
20. ComEd is an Exelon affiliated company. ComEd serves 4.1 million electric customers in Northern Illinois. ComEd utilizes a total of 70,000 miles of distribution and transmission lines, of which ComEd owns approximately 90 miles of 765 kilovolt (kV) transmission lines, 2,468 miles of 345 kV transmission lines, and 2,708 miles of 138 kV transmission lines.
21. PECO is an Exelon affiliated company. PECO serves 1.6 million electric customers

in Southeastern Pennsylvania, through the use of 29,000 miles of distribution and transmission lines, of which PECO owns approximately 188 miles of 500 kV transmission lines, 540 miles of 230 kV transmission lines, and 157 miles of 138 kV transmission lines.

22. The Exelon Companies are all registered on the NERC Compliance Registry as Distribution Provider(s) and Transmission Owner(s) (TOs) in the ReliabilityFirst region. The Exelon Companies, in their capacity as TOs, are subject to compliance with FAC-009-1 R1.

III. VIOLATIONS

A. FAC-009-1 R1 (RFC2020023212, RFC2020023213, RFC2020023214, RFC2020023644, RFC2020023645, and RFC2020023643)

23. FAC-009 ensures that Facility Ratings used in the reliable planning and operation of the BES are determined based on an established methodology or methodologies.
24. Errors and inaccuracies in Facility Ratings can result in compounding risks to the reliability of the BES because accurate Facility Ratings are necessary and relied on for a variety of tasks, activities, and items, including, without limitation, operations, planning, operations planning, relay loadability, modeling/analysis, and data specifications.
25. FAC-009-1 R1 states:
 - R1.** The Transmission Owner and Generator Owner shall each establish Facility Ratings for its solely and jointly owned Facilities that are consistent with the associated Facility Ratings Methodology.

Description of Violation and Risk Assessment for the PHI Companies

26. In July 2019, the PHI Companies had disclosed to ReliabilityFirst that they had identified an issue where they had temporarily placed a transmission line back in service without communicating the applicable Facility Rating to PJM Interconnection, LLC (PJM). Additionally, in December 2019, the PHI Companies disclosed that while mitigating that particular issue, they had discovered additional discrepancies in Facility Ratings and, consequently, were performing an extended review prior to formally reporting these issues to ReliabilityFirst. After receiving an Audit notification letter on December 30, 2019, the PHI Companies formally reported these issues to ReliabilityFirst via a Self-Log on January 30, 2020 (related to the initial issue with communicating with PJM), and Self-Reports on April 15, 2020 (related to the additional Facility Rating discrepancies). See Self-Reports, **Attachments 4-6**. On April 14, 2020, ReliabilityFirst identified as part of a Compliance Audit that the PHI Companies, as TOs, were allegedly in violation of FAC-008-3 R6.2 See Violation-Discovery Records, **Attachments 1-3**. The Compliance Audit was conducted from March 30, 2020, through April 10, 2020

(the Audit).

27. Based on the issues described in the Self-Log/Self-Reports, the PHI Companies performed a full extent of condition review, including field walkdowns of all 349 Facilities within their systems. The PHI Companies, utilizing both internal staff and third-party engineering firms, completed this expedited review by March 31, 2021.
28. The overall results of that extent of condition are summarized as follows. Of the PHI Companies' 349 Facilities, 203 Facilities (58%) required Facility Rating changes (i.e., increases and/or decreases). Of those 203 Facilities that required a Facility Rating change, 171 Facilities (49% overall) required decreases which ranged from less than 1% up to 66%. Additionally, based upon a review of historical loading data, the PHI Companies discovered 11 Facilities that either operated above the correct Facility Rating, or operated near the correct Facility Rating (i.e., more than 95% of the correct Facility Rating) over the last five years.³ However, only one of those Facilities was operated above its emergency rating, and it was above this emergency rating for a total of 17 minutes.
29. After completing this comprehensive extent of condition review, the PHI Companies initiated its first comprehensive compliance monitoring assessment to evaluate the accuracy of their Facility Ratings and the effectiveness of their internal controls. This enhanced assessment included additional field walkdowns to double-check the work performed by the third-party contractors, and a data validation process implemented while the PHI Companies transitioned to a new common Facility Ratings database.
30. This enhanced assessment resulted in the identification and correction of 32 additional Facility Rating issues that were not identified during the third-party field walkdowns, including 18 instances where the Facility Rating was decreased. These decreases ranged from 0.3% - 24.6%. Additionally, the PHI Companies discovered that one of these Facilities was operated above its summer normal rating by 0.1% for 1 minute. Moreover, the actual loading on this Facility, 2686 MVA, was substantially less than the emergency rating of 3302 MVA.
31. In total, the PHI Companies discovered errors at 235 out of their 349 total Facilities (i.e., 67%), with 189 Facilities (i.e., 54%) requiring a rating decrease ranging from less than 1% to 66%. Additionally, the PHI Companies identified 12 Facilities that either operated above the correct Facility Rating, or operated near the correct Facility Rating (i.e., more than 95% of the correct Facility Rating) over the last five years, with only one of those Facilities exceeding its emergency rating.

³ Additionally, while performing their extent of condition review, the PHI Companies discovered that some BES substation equipment was not accounted for under any defined Facility in the Facility Ratings Database (hereinafter referred to as "Orphaned Equipment"). The PHI Companies identified Orphaned Equipment on straight, ring, and breaker and a half bus configurations. Exelon and ReliabilityFirst are jointly collaborating to understand and resolve these issues under this Agreement as explained later in the Agreement.

32. The root cause of this noncompliance was insufficient internal controls throughout the PHI Companies' Facility Ratings program and processes. Specifically, the PHI Companies' overall Facility Ratings process relied on performance from multiple teams at various steps, each with specific tasks. These steps did not include effective internal controls to ensure accuracy in information recording at each stage, such as sufficient independent reviews of data inputs into internal databases, the PHI Energy Management System (EMS), and PJM's eDART system. This lack of effective internal controls throughout the process increased the potential for human errors in the process.
33. Several additional causes also contributed to the noncompliance. First, there was a lack of clear overall ownership and accountability for the transmission equipment and Facility Ratings program. Rather, each team managed its own piece of the process. This lack of an overall ownership structure created communication gaps between teams that increased the risk of errors. Second, some teams responsible for performing the various pieces of the process did not have formal, comprehensive training on their responsibilities in the process. Rather, these teams relied primarily upon on-the-job knowledge transfer, which created additional risk of errors in the process.
34. These causes manifested themselves in various ways. For example, in many cases, changes in the field were not effectively communicated and recorded among the various teams involved in the Facility Rating process, and ultimately to the planning engineer responsible for maintaining the Facility Rating Database. In some other cases, relay thermal limits and transient load limits were not accurately recorded in internal databases.
35. These root and contributing causes involve the management practices of asset and configuration management, which includes controlling changes to assets and configuration items, information management, which includes managing information item integrity, workforce management, which includes providing training, education, and awareness to employees, and reliability quality management, which includes maintaining a system for identifying and deploying internal controls.
36. The alleged violation began on June 18, 2007, the date the PHI Companies were required to comply with FAC-009-1 R1. The alleged violation ended on March 31, 2021, the date the PHI Companies completed their Mitigation Plans.
37. These alleged violations posed a serious risk to the reliability of the bulk power system (BPS).⁴ Entities rely on accurate Facility Ratings for a variety of reliability-focused activities, including, without limitation, relay loadability, modeling/analysis, data specifications, planning, operations planning, and operations. Consequently, Facility Ratings errors can result in compounding risks

⁴ FAC-009-1 R1 has a VRF of "Medium" pursuant to the VRF Matrix. According to the VSL Matrix, this issue warranted a "Severe" VSL.

to the reliability of the BPS. While there is no indication of any adverse system event arising from the potential violations, the risk in this case is serious based on several factors. First, from a high level, the length of time the issue persisted (i.e., nearly 14 years) and the number of errors (i.e., 67% of Facilities requiring a change to Facility Ratings) are indicative of a long-standing, systemic issue. Second, with respect to Facility Ratings decreases, unknowingly operating equipment above its maximum ratings can potentially cause equipment degradation and failure, and it can increase the risk of cascading outages or events due to potentially inaccurate real time contingency analysis (RTCA) results for Facilities with ratings decreases. In this case, a number of factors associated with Facility Ratings decreases exacerbate the risk including: (a) the number of Facilities requiring ratings decreases (i.e., 54%); (b) the extent of those decreases (i.e., up to 66%); and, (c) the fact that 12 Facilities were identified as having actually exceeded or approached the corrected normal Facility Ratings.⁵ No harm is known to have occurred.

38. While the alleged violations in this case were found to be serious, there have been no facts identified to indicate that management at the PHI Companies or Exelon Corporation were aware of any unheeded concerns or requests regarding systemic or significant issues with PHI Companies' FAC-008/FAC-009 compliance program prior to the issue being self-reported.

Mitigation Actions for the PHI Companies

39. As a result of the following mitigating actions, the PHI Companies have taken and are taking reasonable measures to ensure the accuracy of its Facility Ratings.
40. On June 4, 2020, the PHI Companies submitted to ReliabilityFirst Mitigation Plans to address the alleged violation of FAC-008-3 R6. See RFCMIT015134, RFCMIT015135, and RFCMIT015136, **Attachment 7**. On June 30, 2020, ReliabilityFirst accepted the Mitigation Plans.
41. In implementing the following mitigation actions, PHI Companies have made a substantial investment in correcting the ratings issues identified. To date, PHI Companies have incurred expenses of approximately \$10.9 million to implement the mitigation actions. Moreover, PHI companies estimate expenditures to complete the mitigation actions to be well over an additional \$1 million.
42. In the Mitigation Plans, the PHI Companies committed to take the following actions by March 31, 2021:
- a. First, the PHI Companies implemented controls to improve data accuracy through a multi-peer check process to parallel the existing process. Various peer checks will be used to validate all equipment or Facility Ratings changes in each group responsible for maintenance of accurate equipment or Facility Ratings. Peer check steps should include documentation of the

⁵ "Approached" is used here to refer to instances where a Facility operated at more than 95% of the corrected rating but did not actually exceed the corrected rating.

peer check and the performer. The purpose is to improve controls until the PHI Companies' revised process for Facility Ratings is implemented. This interim process will be retired upon the effective date of the revised Facility Ratings process documentation, which will include updates to internal controls.

- b. Second, the PHI Companies communicated the interim peer check process/job aid to validate all equipment or Facility Ratings changes to each group responsible for peer checks and obtained key manager acknowledgment of implementation of peer check process.
- c. Third, the PHI Companies drafted and implemented process documents addressing the establishment and communication of Facility Ratings. This process document was submitted to the Exelon Management Model with notification to Substation Engineering and Drafting, Transmission Engineering, Protection and Control Engineering, Transmission & Substation (T&S) Standards and Equipment Engineering, Transmission Reliability Planning, System Operations, and Meter Services leads.
- d. Fourth, the PHI Companies established a new standard repository for relay load limits across each entity, established notification updates to stakeholders, and migrated all relay load limit data to that standard repository. PHI Companies also established a means for communicating ongoing relay rating changes to appropriate recipients.
- e. Fifth, the PHI Companies drafted and communicated a Technical Bulletin to reinforce expectations to stakeholders who are responsible for the transmission equipment and Facility Ratings process. The bulletin reviewed the responsibilities of each stakeholder group.
- f. Sixth, the PHI Companies established a compliance monitoring plan in conjunction with each entity's FAC-008 Standard Owners to evaluate entity Facility Rating program implementation accuracy and effectiveness of internal controls. The Plan addresses periodic review of methodology and associated FAC-008 processes including supporting documentation for equipment ratings, periodic field verification sampling, periodic equipment surveys, and sampling of end-to-end equipment and facility rating process. The Plan also addresses actions by subject matter experts (SMEs), FAC-008 Standard Owners, and PHI NERC Compliance. Finally, the Plan leverages tracking tools to assign action items to the FAC-008 Standard Owner/SMEs, PHI compliance, or other key stakeholders.
- g. Seventh, each entity's Substation Engineering and Drafting and Meter Services departments established a cross departmental team to determine a process for involving the Meter Services department during substation design. The Meter Services Department was added to Substation One-Line Distribution List.

- h. Eighth, the PHI Companies established a high-level Management Model process document to describe the relationship between Exelon Utility (EU) performing teams and EU Transmission teams within the transmission equipment and Facility Rating process. This document specifically refers to the transmission equipment and Facility Rating process used at each of the Exelon Utilities including ACE, DPL, and Pepco.
- i. Ninth, the PHI Companies developed an EU Transmission Reliability Planning management model procedure that describes the steps performed by Transmission Reliability Planning for the PHI Companies' transmission equipment and Facility Rating Process. The procedure includes details on Exelon Utilities and EU Transmission roles and responsibilities for BES ratings updates and communications between Rating Engineer, Transmission Standards and Equipment Engineering and Transmission System Operations.
- j. Tenth, the PHI Companies developed an EU EMS Rating Update management model procedure that describes the steps performed by EU Transmission System Operator (TSO) EMS Support Group to maintain new and existing equipment and Facility ratings related to the PHI Companies' new EMS.
- k. Eleventh, the PHI Companies revised Pepco Holdings Administrative Procedure, Transmission and Substation Equipment Ratings to refine roles and responsibilities including clearly designating Governance, Oversight, Support and Perform (GOSP) stakeholder requirements. This includes development of a GOSP model that lists work groups in the header and tasks in rows for each phase/step of a project. The GOSP model indicates the role of each work group for each task at the intersection of the task row and the work group column. The procedure also identifies roles and responsibilities during limiting conditions that may arise after a facility is placed in service. Updates include: (i) Clear identification of performing groups and the roles and responsibilities for coordinating the equipment rating process with applicable stakeholders; (ii) Data management control requirements such as required peer checks at necessary data exchange/recording points in the process; (iii) Link the Model and Project Management Procedures to Transmission and Substation Equipment Ratings; and (iv) Include references to all documents reviewed and maintained to ensure methodology references all other equipment rating documents.
- l. Twelfth, the PHI Companies created a consolidated index within Substation Engineering and Drafting, Aerial and Underground Engineering, and Relay and Protection of equipment ratings methodologies used for rating of equipment. The index should include annotations for which each PHI entity uses the rating method.
- m. Thirteenth, the PHI Companies utilized the revised Transmission and

Substation Equipment Ratings Procedure and the GOSP Model to provide training to relevant stakeholders. This training at a minimum covered the PHI Companies' FAC-008 Compliance Program, Facility Ratings Methodology, the Ratings process, and GOSP with the specific job responsibilities.

- n. Fourteenth, the PHI Companies updated PHI Project Management checklist or other necessary PHI Project Management documents to: (1) ensure Facility Rating is communicated to System Operations prior to energization/in-service; and (2) verify System Ops has entered the correct Facility Ratings in PHI EMS and PJM EMS. Communicate same to project management performers.
- o. Fifteenth, the PHI Companies developed Job Aids and conducted training with all performers within each of the respective stakeholder groups. The Job Aids detailed specific steps necessary to perform each group's role within the transmission equipment and Facility Rating process and instruction on use of any tools needed to perform work.
- p. Sixteenth, the PHI Companies ensured all members of EU TSO EMS Support Group completed OSI Maintenance Center training, which includes how to maintain Facility Ratings in the new EMS.
- q. Seventeenth, the PHI Companies developed/updated Job Aid for how to calculate Code 1 ratings for the PHI transmission system. Distributed Job Aid to Engineers within Transmission Reliability Planning.
- r. Eighteenth, the PHI Companies developed/updated Job Aid for when and how to implement and remove Code 1 ratings for equipment within the ACE/DPL and Pepco Energy Management Systems.
- s. Nineteenth, the PHI Companies verified all existing Code 1 facility ratings on the PHI system.
- t. Twentieth, the PHI Companies formed a cross-functional team to create a long-term action plan on use of Code 1 ratings for the PHI transmission system. This plan addressed: (i) Procedure updates for when and how to implement and remove Code 1 ratings for equipment within the ACE/DPL and Pepco Energy Management Systems based on the outcome of review of Code 1 ratings at PHI; (ii) Training of any personnel involved in the transmission equipment and facility ratings process required to handle Code 1 ratings; (iii) Training of transmission operators in the future EU transmission operation control centers on the use of Code 1 ratings within the ACE/DPL and Pepco operational areas; (iv) Ensuring that the future EMS has the functionality to manage the execution of Code 1 ratings for relevant PHI transmission system equipment; and (v) If Code 1 ratings will not be used in the future, an alternate strategy to be developed for

retirement/phase out.

- u. Twenty-first, the PHI Companies developed the implementation plan for use of the new common facility rating database. Implementation included actions to review and update procedures, train Substation Engineering and Drafting, Transmission Engineering, Protection and Control Engineering, T&S Standards and Equipment Engineering Transmission Reliability Planning, System Operations, Project Management and Meter Services on changes resulting from tool implementation, and validation check for migration of data into the new ratings database. Consider as part of implementation inclusion of requirement to complete an assigned training program prior to obtaining access to the new facility ratings database.
- v. Twenty-second, the PHI Companies consolidated ACE, DPL, and Pepco Substation equipment ratings methodologies, including historical methodologies, in one document and aligned methodologies where possible. Any differences between regions should be included in the document with explanations. Revision per NERC document guideline every 2 years.
- w. Twenty-third, the PHI Companies developed and assigned annual LMS based training to provide a detailed overview of PHI transmission equipment and facility rating processes including: (i) FAC-008 NERC standard requirements; (ii) Scope of activities that are covered by PHI transmission equipment and facility rating processes including planned and emergency changes; (iii) Transmission and Substation Equipment Ratings and EU Transmission Reliability Planning Procedure; (iv) Description of available Job Aids by team and description of equipment rating methodology indexes; and (v) Key roles and responsibilities of each responsible group in the transmission equipment and facility rating processes.
- x. Twenty-fourth, the PHI Companies prepared and submitted disclosure of discrepancies for completed Facility reviews to ReliabilityFirst and identified overall progress of Facility reviews. The entity also identified corrected discrepancies and provided evidence of correction.
- y. Twenty-fifth, the PHI Companies established a plan for ACE, DPL, and Pepco to complete remediation for any discrepancies that require additional time and planning to complete.
- z. As additional mitigating activities related to the additional instances identified by the PHI Companies as a result of the extent of condition, the PHI Companies committed to either (1) expand existing Facility boundaries to incorporate Orphaned Equipment for ring and breaker and a half configurations, (2) develop new standalone Facilities for Orphaned Equipment on straight bus and breaker and half configurations, or (3)

resolve the Orphaned Equipment issue via some other approach acceptable to ReliabilityFirst. Regardless of the approach selected, PHI Companies have committed to address the Orphaned Equipment by the end of 2023 by either (a) completing the rating of this equipment under one of the above approaches; or (b) having a mitigation plan in place and approved by ReliabilityFirst to complete the rating of any remaining Orphaned Equipment under one of the above four approaches.

43. In addition to the mitigating actions described above, the PHI Companies also committed to perform additional quality assurance work, including full field verifications of all Facilities by the end of 2023, to verify and validate the accuracy of the work performed by the personnel and third-party contractors during the initial 2021 extent of condition review and resolve Orphaned Equipment issues, and will periodically submit reports to ReliabilityFirst regarding the results of those efforts. To the extent any additional instances identified during this additional quality assurance work materially alter, in the sole discretion of ReliabilityFirst, the scope of, or risk assessment associated with, these Alleged Violations, ReliabilityFirst may pursue further sanctions and/or enforcement actions.
44. On April 14, 2021, the PHI Companies certified to ReliabilityFirst that they completed their Mitigation Plans as of March 31, 2021. See Certifications of Mitigation Plan Completion, **Attachments 8-10**. On June 21, 2021, ReliabilityFirst verified the entities completed their Mitigation Plans on March 31, 2021. See Mitigation Plan Verifications for RFCMIT015134, RFCMIT015135, and RFCMIT015136, **Attachments 11-13**.

Description of Violation and Risk Assessment for BGE, ComEd, and PECO

45. On July 6 and 7, 2020, BGE, ComEd, and PECO submitted Self-Reports to ReliabilityFirst indicating that, as TOs, they were in violation of FAC-008-3 R3.⁶ See Self-Reports, **Attachments 14-16**. As a result of widespread issues with Facility Ratings at the PHI Companies first identified in 2019, BGE, ComEd, and PECO each undertook an initial extent of condition review, including full field walkdowns, of a sample of their total Facilities. Based on the results of these initial reviews, they all decided to perform full extent of condition reviews, including full field walkdowns, of all of their Facilities, which were completed as of December 31, 2022.⁷
46. As of the time of this Agreement, the overall totals for Facility Ratings errors at each of these companies are as follows:
 - a. BGE reviewed 278 out of 278 total Facilities. The entity discovered that 34

⁶ Further investigation subsequently revealed that the Self-Reports should have been submitted under FAC-008-3 R6, and that the start of the alleged violations dated back to an earlier version of that Standard and Requirement (i.e., FAC-009-1 R1).

⁷ BGE, ComEd, and PECO all discovered issues with Orphaned Equipment, like the PHI Companies. Refer to footnote 3 for details on how the Parties are addressing these issues.

- Facilities (i.e., 12%) required a Facility Rating change (i.e., either an increase or a decrease), with twenty Facilities requiring a rating decrease, which ranged from 1% - 21.9%. The entity did not identify any Facilities that operated above the correct Facility Rating over the last five years.
- b. ComEd reviewed 975 out of 975 total Facilities. The entity discovered that 111 Facilities (i.e., 11%) required a Facility Rating change, with 49 Facilities requiring a rating decrease, which ranged from 1.3% - 48.8%. Additionally, the entity identified two Facilities that operated above the correct Facility rating, neither of which exceeded the applicable emergency rating.
 - c. PECO reviewed 251 out of 251 total Facilities. The entity discovered that 133 Facilities (i.e., 53%) required a Facility Rating change, with 84 Facilities requiring a rating decrease, which ranged from 0.1% - 51.6%. Additionally, the entity identified two Facilities that operated above the correct Facility Rating, neither of which exceeded the applicable emergency rating.
47. The root cause of these alleged violations was insufficient internal controls throughout each company's Facility Ratings program and processes. Specifically, the companies' overall Facility Ratings process relied on performance from multiple teams at various steps, each with specific tasks. These steps did not include effective internal controls to ensure accuracy in information recording at each stage, such as sufficient independent reviews of data inputs into internal databases, each entity's Energy Management System (EMS), and PJM's eDART system. This lack of effective internal controls throughout the process increased the potential for human errors in the process.
48. A failure to maintain or confirm facility baselines also contributed to the noncompliance. This included a reliance in some instances on third-party developed baselines that were adopted without adequate review. In addition, BGE, ComEd, and PECO each performed an extensive investigation into the root causes of the identified facility ratings concerns and determined that the following categories contributed to a failure to maintain and confirm facility rating baselines: change in asset and contractor management; facility ratings database discrepancies; and documentation quality.
49. These root and contributing causes involve the management practices of asset and configuration management, which includes controlling changes to assets and configuration items, information management, which includes managing information item integrity, workforce management, which includes providing training, education, and awareness to employees, and reliability quality management, which includes maintaining a system for identifying and deploying internal controls.
50. The alleged violations began on June 18, 2007, the date BGE and ComEd were

required to comply with FAC-009-1 R1,⁸ and ended on December 31, 2022, the date BGE, ComEd, and PECO completed their extent of condition reviews and corrected any discrepancies.

51. These alleged violations posed different levels of risk to the reliability of the bulk power system (BPS) as explained below.⁹ Entities rely on accurate Facility Ratings for a variety of reliability-focused activities, including, without limitation, relay loadability, modeling/analysis, data specifications, planning, operations planning, and operations. Consequently, Facility Ratings errors can result in compounding risks to the reliability of the BPS. Additionally, with respect to Facility Ratings decreases, unknowingly operating equipment above its maximum ratings can potentially cause equipment degradation and failure, and it can increase the risk of cascading outages or events due to potentially inaccurate real time contingency analysis (RTCA) results for Facilities with ratings decreases.
- a. With respect to BGE (i.e., RFC2020023644), the risk is moderate based on the following factors.¹⁰ The risk is not minimal considering that 34 Facilities (i.e., 12%) required changes to their Facility Ratings, indicating that the issue was long-standing and widespread. The risk is not serious and substantial considering that : (a) only twenty Facilities required a decrease (i.e., 7%); (b) the extent of those decreases did not exceed 21.9% in any instance; and, (c) BGE did not identify any instances where a Facility actually exceeded the corrected Facility Ratings. No harm is known to have occurred.
 - b. With respect to ComEd (i.e., RFC2020023645), the risk is moderate based on the following factors.¹¹ First, from a high level, the length of time the issue persisted (i.e., nearly 15 years) and the number of errors (i.e., 111 Facilities requiring a change to Facility Ratings, or 11%) are indicative of a long-standing, systemic issue. Second, in ComEd's case, a number of factors associated with Facility Ratings decreases elevate the risk to a moderate level including: (a) the number of Facilities requiring ratings decreases (i.e., 49 Facilities or 5%); (b) the extent of those decreases (i.e., up to 48.8%); and (c) the fact that two Facilities were identified as having actually exceeded or approached the corrected Facility Ratings.¹² No harm is known to have occurred.
 - c. With respect to PECO (i.e., RFC2020023643), the risk is serious based on

⁸ The start date for PECO is June 27, 2007, the date on which registered on the NERC Compliance Registry and was required to comply with FAC-009-1 R1.

⁹ FAC-009-1 R1 has a VRF of "Medium" pursuant to the VRF Matrix.

¹⁰ According to the VSL Matrix, the BGE case warranted a "High" VSL.

¹¹ According to the VSL Matrix, the ComEd case warranted a "High" VSL.

¹² However, the emergency ratings were not exceeded in either case.

the following factors.¹³ First, from a high level, the length of time the issue persisted (i.e., nearly 15 years) and the number of errors (i.e., 133 Facilities requiring a change to Facility Ratings or 58%) are indicative of a long-standing, systemic issue. Second, in PECO's case, a number of factors associated with Facility Ratings decreases exacerbate the risk to a serious level including: (a) the number of Facilities requiring ratings decreases (i.e., 84 Facilities, or 33%); (b) the extent of those decreases (i.e., up to 51.6%); and, (c) the fact that two Facilities were identified as having actually exceeded or approached the corrected Facility Ratings.¹⁴ No harm is known to have occurred.

Mitigating Actions for BGE, ComEd, and PECO

52. On October 15, 2020, BGE, ComEd, and PECO submitted to ReliabilityFirst Mitigation Plans to address the alleged violation of FAC-009-1 R1. See RFCMIT015302, RFCMIT015304, and RFCMIT015303, **Attachments 17-19**. On November 10, 2020, ReliabilityFirst accepted the Mitigation Plans.
53. In the Mitigation Plans, BGE, ComEd, and PECO committed to take the following actions by December 31, 2021:
 - a. First, they implemented additional procedural controls (both program and performer level), including comprehensive, ongoing training, and providing additional clarity in current processes, procedures, job aids, and checklists.
 - b. Second, they implemented company-specific preventative actions tailored to specific challenges at each company. For BGE, these actions included transitioning to the new corporate-wide Energy Management System (EMS); implementing automated technical capability in its new EMS to compare BGE EMS to PJM EMS values and BGE EMS values to those in the BGE Facility Rating system; and, working with the new facility ratings database software vendor to expand its capability regarding ratings history and reporting. For ComEd, these actions included developing a comprehensive checklist to ensure all aspects of the ratings review process is reviewed during training, modifying the existing job aid to provide additional clarity on the peer review process, developing training material to support the comprehension of substation prints, reviewing and updating ComEd's Transmission Ratings Methodology to provide additional clarity on the inclusion start and stop points of a Facility's substation terminal equipment, and developing and distributing a job aid to review rating and impedance comparison mapping quarterly to ensure accurate comparison tool mapping between the facility rating database and the ComEd and PJM EMS. For PECO, these actions included reviewing current processes and management model documentation to identify any necessary process

¹³ According to the VSL Matrix, the PECO case warranted a "Severe" VSL.

¹⁴ However, the emergency ratings were not exceeded in either case.

changes as a result of discrepancies found during rating review to ensure accurate rating drawings by making a more robust quality check review of the rating drawings.

- c. Third, they each completed a full extent of condition review that included field verification, source document verification, equipment rating calculations, analysis of the ratings database, verification of company-specific and PJM EMS ratings, verification of ratings in Transmission Planning models and consistency verification with company ratings methodology. This review will provide assurance that the information in the Facility Rating Database, Operation models, and Planning models is accurate.
- d. Fourth, they implemented a common application tool to document equipment and Facility Ratings that will be used by all Exelon Companies. This new tool will provide the Exelon Companies with additional controls including automatic alerting for Facility Ratings based on the fieldwork performed.
- e. As an additional mitigating activity, BGE, ComEd, and PECO leveraged the peer working group, comprised of representatives from all corporate-wide Transmission & Substation organizations, to compare equipment rating methodologies across each utility operating company and thereafter make recommendations to senior leadership for alignment.
- f. As additional mitigating activities related to the additional instances identified by BGE, ComEd, and PECO as a result of the extent of condition, they committed to either (1) expand existing Facility boundaries to incorporate Orphaned Equipment for ring and breaker and a half configurations, (2) develop new standalone Facilities for Orphaned Equipment on straight bus and breaker and half configurations, or (3) resolve the Orphaned Equipment issue via some other approach acceptable to ReliabilityFirst. Regardless of the approach selected, BGE, ComEd, and PECO have committed to address the Orphaned Equipment within twelve months of the date of this Agreement by either (a) completing the rating of this equipment under one of the above approaches; or (b) having a mitigation plan in place and approved by ReliabilityFirst to complete the rating of any remaining Orphaned Equipment under one of the above four approaches.¹⁵

54. In addition to the mitigating actions described above, BGE, ComEd, and PECO will consider industry best practices, such as the July 18, 2022, Key NATF Practices for

¹⁵ To the extent any additional instances identified during mitigation materially alter, in the sole discretion of ReliabilityFirst, the scope of, or risk assessment associated with, this Alleged Violation, ReliabilityFirst may pursue further sanctions and/or enforcement actions.

facility ratings or successor versions, as they continue to mature their facility ratings programs. They also commit to performing routine monitoring of their facility ratings programs and associated controls to ensure that the programs remain effective and sustainable.

55. On November 29, 2021, BGE certified to ReliabilityFirst that it completed its Mitigation Plan as of October 6, 2021. *See* Certification of Mitigation Plan Completion, **Attachment 20**. On January 12, 2022, ReliabilityFirst verified BGE completed its Mitigation Plan on October 26, 2021. *See* Mitigation Plan Verification for RFCMIT015302, **Attachment 21**.
56. On December 2, 2021, ComEd certified to ReliabilityFirst that it completed its Mitigation Plan as of October 25, 2021. *See* Certification of Mitigation Plan Completion, **Attachment 22**. On January 20, 2022, ReliabilityFirst verified ComEd completed its Mitigation Plan on October 25, 2021. *See* Mitigation Plan Verification for RFCMIT015304, **Attachment 23**.
57. On November 15, 2021, PECO certified to ReliabilityFirst that it completed its Mitigation Plan as of October 27, 2021. *See* Certification of Mitigation Plan Completion, **Attachment 24**. On December 24, 2021, ReliabilityFirst verified PECO completed its Mitigation Plan on October 27, 2021. *See* Mitigation Plan Verification for RFCMIT015303, **Attachment 25**.

IV. ADJUSTMENT FACTORS

58. In addition to the facts and circumstances stated above, ReliabilityFirst considered the following factors in its penalty determination.

Self-Disclosure

59. Effective oversight of the reliability of the BES depends on robust and timely self-reporting by Registered Entities. The PHI Companies identified an initial issue with Facility Ratings and reported that to ReliabilityFirst via a self-log. While performing the extent of condition for that issue, the PHI Companies identified additional issues with Facility Ratings, which they disclosed to ReliabilityFirst. Furthermore, BGE, ComEd, and PECO all initiated their own extent of condition reviews based on the results found at the PHI Companies and promptly self-reported their issues to ReliabilityFirst. Consequently, even though the PHI Companies received the audit notification letter prior to formally reporting these additional issues to ReliabilityFirst, ReliabilityFirst seeks to encourage this type of open disclosure and reporting, so it awarded the Exelon Companies mitigating credit for their self-disclosure.

Cooperation

60. The Exelon Companies have been highly cooperative throughout the entire enforcement process. As discussed earlier, the PHI Companies initially identified

several potential issues with Facilities Ratings prior to the Audit. While they had not formally reported those to ReliabilityFirst prior to receiving the audit notification letter, they had informally disclosed them prior to the Audit and were transparent with ReliabilityFirst about them during the Audit. After the Audit, the PHI Companies met with ReliabilityFirst on a regular basis to discuss progress on mitigation, reliability, and other related activities. Moreover, all of the Exelon Companies completed full physical walkdowns of all their Facilities within a relatively short timeframe, which was beneficial not only to the reliability of the BPS, but also to ReliabilityFirst's analysis of the risk posed by the alleged violations. Throughout the enforcement process, the Exelon Companies voluntarily provided ReliabilityFirst with an abundance of information regarding the alleged violations in a manner that was detailed, well-organized, and timely. The Exelon Companies have been transparent with ReliabilityFirst regarding the alleged violations and their processes and systems, and this insight has allowed ReliabilityFirst to better analyze the alleged violations and assist the Exelon Companies with resolving the same. The Exelon Companies' level of cooperation throughout the enforcement process has been exemplary and ReliabilityFirst awarded mitigating credit for this level of cooperation to encourage this sort of response by other Registered Entities in the future.

Compliance History

61. When assessing the penalty for the alleged violations at issue in this Agreement, ReliabilityFirst considered whether the underlying facts evidence repetitive infractions. ReliabilityFirst considered the Exelon Companies' relevant compliance history and determined that a prior issue with FAC-008/9 (i.e., RFC2017017824) should serve as an aggravating factor in the penalty determination because the entity involved failed to identify the full breadth of their systemic issue with Facility Ratings in response to those prior issues.

V. PENALTY

62. Based upon the foregoing, the Exelon Companies shall pay a monetary penalty of \$1,800,000.00 to ReliabilityFirst.
63. ReliabilityFirst shall present an invoice to the Exelon Companies within 20 days after the Agreement is approved by the Commission or affirmed by operation of law. Upon receipt, the Exelon Companies shall have 30 days to remit payment. ReliabilityFirst will notify NERC if it does not timely receive the payment from the Exelon Companies.
64. If the Exelon Companies fail to timely remit the monetary penalty payment to ReliabilityFirst, interest will commence to accrue on the outstanding balance, pursuant to 18 C.F.R. § 35.19a (a)(2)(iii), on the earlier of (a) the 31st day after the date on the invoice issued by ReliabilityFirst to the Exelon Companies for the monetary penalty payment or (b) the 51st day after the Agreement is approved by the Commission or operation of law.

VI. ADDITIONAL TERMS

65. The Parties agree that this Agreement is in the best interest of BES reliability. The terms and conditions of the Agreement are consistent with the regulations and orders of the Commission and the NERC Rules of Procedure.
66. The Parties acknowledge that during the alleged violation period the FAC-009-1 Reliability Standard was superseded by various versions of the FAC-008 Reliability Standard. The Parties agree that this Agreement settles all alleged violations, subject to the exceptions stated in this paragraph, arising from the failure to establish accurate Facility Ratings during the violation period pursuant to the terms of the Agreement, whether under FAC-009-1 or applicable versions of the FAC-008-5 R6 Reliability Standards. However, ReliabilityFirst does not waive any rights to pursue enforcement for a failure to execute mitigation as described herein, any undisclosed issues, or issues involving Facilities that were not subject to the walkdowns described herein (excluding new Facilities created to address the Orphaned Equipment issue).
67. ReliabilityFirst and the Exelon Companies affirm that any disclosures related to the mitigation actions under this Agreement, including to the extent the Exelon Companies may revise additional Facility Ratings in accordance with the mitigation actions, will be incorporated into this Agreement so long as such disclosures are reasonably related to the facts as stated in this Agreement and do not materially change the facts relied upon for this Agreement.
68. ReliabilityFirst shall report the terms of all settlements of compliance matters to NERC. NERC will review the Agreement for the purpose of evaluating its consistency with other settlements entered into for similar alleged violations or under similar circumstances. Based on this review, NERC will either approve or reject this Agreement. If NERC rejects the Agreement, NERC will provide specific written reasons for such rejection and ReliabilityFirst will attempt to negotiate with the Exelon Companies a revised settlement agreement that addresses NERC's concerns. If a settlement cannot be reached, the enforcement process will continue to conclusion. If NERC approves the Agreement, NERC will (a) report the approved settlement to the Commission for review and approval by order or operation of law and (b) publicly post the alleged violations and the terms provided for in this Agreement.
69. This Agreement binds the Parties upon execution and may only be altered or amended by written agreement executed by the Parties. The Exelon Companies expressly waive their right to any hearing or appeal concerning any matter set forth herein, unless and only to the extent that the Exelon Companies contend that any NERC or Commission action constitutes a material modification to this Agreement.
70. ReliabilityFirst reserves all rights to initiate enforcement action against the Exelon Companies in accordance with the NERC Rules of Procedure in the event that the Exelon Companies fail to comply with any of the terms or conditions of this

Agreement. The Exelon Companies retain all rights to defend against such action in accordance with the NERC Rules of Procedure.

71. The Exelon Companies consent to ReliabilityFirst's future use of this Agreement for the purpose of assessing the factors within the NERC Sanction Guidelines and applicable Commission orders and policy statements, including, but not limited to, the factor evaluating the Exelon Companies' history of alleged violations. Such use may be in any enforcement action or compliance proceeding undertaken by NERC or any Regional Entity or both, provided however that the Exelon Companies do not consent to this Agreement being used as an admission by the Exelon Companies that it violated the FAC-009-1 R1 or FAC-008 requirements, and do not consent to the use of the conclusions, determinations, and findings set forth in this Agreement as the sole basis for any other action or proceeding brought by NERC or any Regional Entity or both, nor do the Exelon Companies consent to the use of this Agreement by any other party in any other action or proceeding.
72. The Exelon Companies affirm that all of the matters set forth in this Agreement are true and correct to the best of their knowledge, information, and belief, and that they understand that ReliabilityFirst enters into this Agreement in express reliance on the representations contained herein, as well as any other representations or information provided by the Exelon Companies to ReliabilityFirst during any the Exelon Companies interaction with ReliabilityFirst relating to the subject matter of this Agreement.
73. Upon execution of this Agreement, ReliabilityFirst stipulates that each issue addressed herein constitutes an alleged violation. The Exelon Companies neither admit nor deny that these facts constitute violations. The Parties stipulate that all required, applicable information listed in Section 5.3 of the CMEP is included within this Agreement.
74. Each of the undersigned agreeing to and accepting this Agreement warrants that he or she is an authorized representative of the Party designated below, is authorized to bind such Party, and accepts the Agreement on the Party's behalf.
75. The undersigned agreeing to and accepting this Agreement warrant that they enter into this 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 the Parties has been made to induce the signatories or any other party to enter into this Agreement.
76. The Agreement may be signed in counterparts.
77. This Agreement is executed in duplicate, each of which so executed shall be deemed to be an original.

[SIGNATURE PAGES TO FOLLOW]¹⁶

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK]

¹⁶ An electronic version of this executed document shall have the same force and effect as the original.

ENDORSED BY:

Niki Schaefer
Vice President & General Counsel
ReliabilityFirst Corporation

Date

AGREED TO AND ACCEPTED BY:



Carol A. Dodson
Vice President, Transmission and Substation
Baltimore Gas and Electric Company

5/5/2023

Date



Cheryl M. Maletich
Senior Vice President, Transmission and
Substation
Commonwealth Edison Company

5/4/2023

Date



Drew T. Davis
Vice President, Transmission and Substation
PECO Energy Company

5/4/2023

Date



Samuel F. Williams
Vice President, Transmission and Substation
Pepco Holdings, LLC

5/5/2023

Date

Signatures continued on next page.

ReliabilityFirst Corporation

/s/ Timothy R. Gallagher
Timothy R. Gallagher
President & Chief Executive Officer
ReliabilityFirst Corporation

March 24, 2023
Date

Violation - Discovery Record

Registered Entity: Atlantic City Electric Company

NERC Registry ID: NCR00688

NERC Violation ID: RFC2020023212

Discovery Method: Audit

Date Submitted: April 15, 2020

Region Contact: Patrick O'Connor

Phone: 216-503-0668 Email: patrick.oconnor@rfirst.org

Standard: FAC-009-1 - Establish and Communicate Facility Ratings

Purpose: To ensure that Facility Ratings used in the reliable planning and operation of the Bulk Electric System (BES) are determined based on an established methodology or methodologies.

Requirement: FAC-009-1 R1.

The Transmission Owner and Generator Owner shall each establish Facility Ratings for its solely and jointly owned Facilities that are consistent with the associated Facility Ratings Methodology.

Violated Sub-Requirement(s):

Violated Function(s): Transmission Owner (TO)

Init Determ a Vltm: April 15, 2020

Begin Date of Vltm: June 18, 2007

End Date:

Notified of Vltm on: April 14, 2020

Potential Impact to
BES:

Brief Vltm Descr. & Cause: Entity failed to adequately ensure that Facility Ratings used in the reliable planning and operation of the Bulk Electric System (BES) are determined based on technically sound principles. A Facility Rating is essential for the determination of System Operating Limits.

Alleged Violation:

Registered Entity
Report/Response:

Risk Factor:

Severity Level:

Factual Basis:

Violation - Discovery Record

Registered Entity: Delmarva Power & Light Company

NERC Registry ID: NCR00752

NERC Violation ID: RFC2020023213

Discovery Method: Audit

Date Submitted: April 15, 2020

Region Contact: Patrick O'Connor

Phone: 216-503-0668 Email: patrick.oconnor@rfirst.org

Standard: FAC-009-1 - Establish and Communicate Facility Ratings

Purpose: To ensure that Facility Ratings used in the reliable planning and operation of the Bulk Electric System (BES) are determined based on an established methodology or methodologies.

Requirement: FAC-009-1 R1.

The Transmission Owner and Generator Owner shall each establish Facility Ratings for its solely and jointly owned Facilities that are consistent with the associated Facility Ratings Methodology.

Violated Sub-Requirement(s):

Violated Function(s): Transmission Owner (TO)

Init Determ a Vltm: April 15, 2020

Begin Date of Vltm: June 18, 2007

End Date:

Notified of Vltm on: April 14, 2020

Potential Impact to
BES:

Brief Vltm Descr. & Cause: Entity failed to adequately ensure that Facility Ratings used in the reliable planning and operation of the Bulk Electric System (BES) are determined based on technically sound principles. A Facility Rating is essential for the determination of System Operating Limits.

Alleged Violation:

Registered Entity
Report/Response:

Risk Factor:

Severity Level:

Factual Basis:

Violation Detail

NERC Vln Code: RFC2020023214

Discovery Method: Audit

NERC Violation NoncomplianceSentToFERC
Status:

Validated On:

Date Submitted: April 15, 2020

Mit Plan Status: Accepted

Violation Status: WaitForFinal

Registered Entity: Potomac Electric Power Company

NERC ID: NCR00881

Standard: FAC-009-1 - Establish and Communicate Facility Ratings

Purpose: To ensure that Facility Ratings used in the reliable planning and operation of the Bulk Electric System (BES) are determined based on an established methodology or methodologies.

Requirement: FAC-009-1 R1.

The Transmission Owner and Generator Owner shall each establish Facility Ratings for its solely and jointly owned Facilities that are consistent with the associated Facility Ratings Methodology.

Discovery Information:Violated Sub-
Requirement(s):

Violated Function(s): Transmission Owner (TO)

Init Determ a Vln: April 15, 2020

Begin Date of Vln: June 18, 2007

End Date:

Region Notified On: April 14, 2020

Potential Impact to
BES:Registered Entity
Report/Response:

Brief Vln Descr. & Entity failed to adequately ensure that Facility Ratings used in the reliable planning and operation of the Cause: Bulk Electric System (BES) are determined based on technically sound principles. A Facility Rating is essential for the determination of System Operating Limits.

Alleged Violation:

Compliance Staff Activity:

Init Determ: Yes

ReliabilityFirst

Confidential Non-Public Information

November 01, 2022

Region Contact: Patrick O'Connor

Phone: 216-503-0668

Email: patrick.oconnor@rfirst.org

Sent to NERC On: April 15, 2020

Dismissed On:

Region Comment: Entity failed to adequately ensure that Facility Ratings used in the reliable planning and operation of the Bulk Electric System (BES) are determined based on technically sound principles. A Facility Rating is essential for the determination of System Operating Limits.

Enforcement Staff Activity:

Send To NERC: Yes

Note to NERC:

Final Determ:

By:

On:

Region Comment:

PNAV Sent On:

NAVAPS Sent On:

Entity Response Due:

NOCV Sent On:

Dismissal Contact:

Dismissal On:

LOD Sent On:

Region Comment:

Violation Information:

Risk Factor:

Severity Level:

Factual Basis:

Sanction & Penalty Information:

Is Vln Contested?: No

Entity Response:

Region Penalty ID:

Contested Element:

Penalty Basis:

No. of Occurrences for Plty Calculation:

Penalty Violation Detail Type:

Penalty Type:

Monetary Penalty:

Recur. End Date:

Detail about Occurrence:

ReliabilityFirst

Confidential Non-Public Information

November 01, 2022

Reasons Contested:

Addtl Contested info
comment:

Entity Contested
Comment:

Region Comment on
Plty Determ:

Region Comment on
Non-Monetary
Sanctions:

Penalty Directive:

Settlement Information:

Region Settlement ID:

Update to MP Req?: No

Region Comment:

Directives:

Self Report

Entity Name: Atlantic City Electric Company (ACE)

NERC ID: NCR00688

Standard: FAC-009-1

Requirement: FAC-009-1 R2.

Date Submitted: April 15, 2020

Has this violation previously No
been reported or discovered?:

Entity Information:

Joint Registration
Organization (JRO) ID:

Coordinated Functional
Registration (CFR) ID:

Contact Name: Mark Yerger

Contact Phone: 3024544121

Contact Email: mark.yerger@pepcoholdings.com

Violation:

Violation Start Date: June 18, 2007

End/Expected End Date: March 01, 2021

Reliability Functions: Transmission Owner (TO)

Is Possible Violation still Yes
occurring?:

Number of Instances: 200

Has this Possible Violation No
been reported to other
Regions?:

Which Regions:

Date Reported to Regions:

Detailed Description and Cause of Possible Violation: Atlantic City Electric ("ACE"), Delmarva Power & Light ("DPL"), and Potomac Electric Power Company ("Pepco") (together, the "PHI Utilities" or "PHI") have identified potential discrepancies related to FAC-008 compliance at multiple PHI Facilities. As described further below, the potential discrepancies relate primarily to the implementation of the PHI Utilities' FAC-008 Facility Ratings programs and stem from PHI's FAC-008 extent of condition reviews, which began in April 2019, following the identification of a single issue disclosed in Self-Log #92.

In this Self-Report, PHI is providing ReliabilityFirst ("RF") with: (1) a summary of the extent of condition work stemming from Self-Log #92; (2) greater detail on the quantity and types of rating discrepancies identified; and (3) a description of next steps that PHI is taking to complete review work and disclose any additional discrepancies to RF. Because the reviews uncovered multiple discrepancies across all PHI Utilities, PHI is Self-Reporting the initial and future extent of condition findings per agreement with ReliabilityFirst. As additional background, Exelon is also providing RF with an overview of related FAC-008 extent of condition activities occurring across the Exelon enterprise in light of the discovery of issues at PHI.

Exelon will continue to be fully transparent with RF regarding the resolution of potential FAC-008 issues at PHI and across Exelon's NERC Registered Entities consistent with management expectations and Exelon's NERC investigation process.

Self Report

Exelon Self-Log #92

In April 2019, PHI initiated an evaluation per Exelon's NERC investigation process of a potential FAC-008 Requirement R8 issue at ACE. As reported in Exelon Self-Log #92, ACE discovered that it had temporarily placed a transmission line back into service without communicating the applicable Facility Rating to PJM Interconnection ("PJM") via a PJM TERM ticket. This issue was first disclosed to RF through conversation with RF Legal in July 2019. In follow-up discussions in December 2019, Exelon disclosed that PHI had identified additional FAC-008 discrepancies and was performing an extended review prior to reporting these additional issues. Exelon initiated an ongoing evaluation into ratings discrepancies as a set of mitigating actions in Self-Log #92. Self-Log #92 included three tasks to complete extent of condition reviews by May 31, 2020 for the PHI Utilities.

FAC-008 Ratings Discrepancies with the PHI Utilities

After discovery of the initial issue at ACE in Self-Log #92, PHI began to compare Facility Ratings against PJM records to determine whether all PHI documented Facility Ratings match the PJM records. This initial review revealed discrepancies with other ACE Facility Ratings. As a result, in May 2019, Exelon expanded the scope of the Facility Ratings reviews to include DPL and Pepco. The expanded review involved performing a full records check by comparing PHI EMS ratings and ratings at PJM to source documentation of the PHI Facility Ratings, and by walkdowns of each BES substation to compare field conditions with source documentation of the PHI Facility Ratings. The goal was to ensure the Equipment and Facility Ratings documented in PHI's Facility Ratings database (called the "Z-Table") were correct and accurately reflected in the Facility Ratings documented in PHI's and PJM's EMS. Due to the extent of issues identified during the initial walkdowns and documentation reviews, the PHI Utilities retained third-party consultants in January 2020 to challenge and review the work by PHI.

As of the submission of this Self-Report, the PHI Utilities have identified approximately 200 Facilities with some discrepancies ranging from differences in the overall Facility Rating to a single individual Equipment Rating at the Facility with no impact to the Facility Rating. In some cases, multiple discrepancies have been identified at a single Facility. While those findings are still subject to third-party consultant review and confirmation, the issues identified to date are attributable to a number of apparent causes, ranging from rounding methods in ratings calculations to field conditions not fully reflected in rating databases. PHI, with support from Exelon personnel, has initiated a root cause investigation to identify the causes underlying the discrepancies that have been identified so far and along with the appropriate corrective actions to prevent recurrence. This root cause investigation is targeted to complete in April 2020. On February 18, 2020, in response to a concurrent audit request, Exelon provided RF legal with a preliminary list of discrepancies identified by the PHI Utilities related to the Facilities sampled by RF as part of the audit of FAC-008-3.

The PHI Utilities are working on a schedule to complete a full review and validation of the identified discrepancies. The work to complete adjustments to any Facility Ratings may continue through end of Q3 2020. PHI will provide a separate list of Facilities and any rating discrepancies associated with each Facility to RF each quarter as full reviews are completed. These disclosures will be coordinated and sent through RF Legal via the RF Extranet. Once internal and third-party reviews of an entire Facility have been completed, PHI will add any discrepancies attributable to that Facility into the RF disclosure file and provide subsequent updates to RF. In this manner, RF will be able to track the overall completion progress of each Facility review and maintain visibility of any resulting discrepancies.

Potential Reliability Risks

To date, PHI has evaluated all of the identified discrepancies by performing

Self Report

evaluations of Facility Ratings changes against planning criteria. PHI has not identified any current planning criteria violations for Facilities identified for a ratings decrease if changes were made today. PHI's internal review considered NERC, PJM, and PHI planning criteria. This analysis is based on internal preliminary planning evaluations and may be updated.

Operational reviews have also been performed to assess the maximum historical load on Facilities identified for a ratings decrease. This method is employed to determine if a Facility has been loaded above the MVA limits that should have been in place. To date, it has been determined that one Pepco Facility was loaded above its normal rating. The Facility was loaded above its normal rating for approximately 4 minutes but was not loaded above its emergency limit. Additional historic loading reviews will be conducted as ongoing facility rating updates are completed to ensure any additional historic ratings violations are identified and evaluated for impact.

PHI will continue to perform similar assessments for any additional Facilities that require a decrease in ratings against both planning criteria and historical operational loading levels.

Causal Analysis and Mitigation

As described above, Exelon is conducting an ongoing root cause investigation with respect to the PHI Utilities and will identify process improvements and initial corrective actions to address any identified issues. Investigation results thus far indicate PHI's controls to ensure accuracy over time were not effective. Corrective actions will be detailed in a follow-up Mitigation Plan to this Self-Report in May 2020. Any additional causes identified following the completion of the root cause investigation and submission of the Mitigation Plan will be provided to RF along with any necessary additional mitigating activities.

Next Steps for PHI

Exelon will continue to provide updates to RF in connection with the evaluations described herein and mitigation activities. As with the February 18, 2020, disclosure provided to RF, Exelon will submit a more detailed list of ratings discrepancies for additional Facilities through the RF Extranet portal. Subsequent disclosures will follow as each Facility is fully evaluated and validated by the third-party review described above.

FAC-008 Reviews Across Other Exelon Registered Entities

Exelon committed to review the FAC-008 compliance posture across all Exelon utility operating companies, even prior to the independent discovery of the issue identified in ACE Self-Log #92. In response to growing NERC concerns over industry FAC-008/FAC-009 compliance, the centralized Exelon NERC Compliance Management Team ("CMT") briefed the Company's NERC Steering Committee on the industry FAC-008 enforcement actions in August 2018. In the subsequent months, CMT solidified a plan to perform a comprehensive, enterprise-wide assessment of FAC-008 programs within Exelon during 2019. Exelon scheduled an internal FAC-008 controls evaluation for all Exelon entities through the CMT's Internal Self-Assessment Assist Program ("ISAP"), involving in-depth reviews of internal controls. Out of this evaluation, which was held in September 2019, CMT included a recommendation to incorporate facility walkdowns in the periodic verification of Facility Ratings in follow-up actions to the ISAP.

Following the discovery of the issue underlying Self-Log #92, PHI accelerated its review activities ahead of the ISAP completion. Exelon has provided this information on its internal efforts to note that the issues at PHI would likely have been discovered during facility walkdowns prompted by this ISAP had the issue at ACE not been uncovered.

Following the discovery of potential issues at PHI, Exelon has initiated FAC-008 reviews at all Exelon NERC Registered Entities, including Exelon

Self Report

Generation Power and Exelon Nuclear. These reviews will perform a check of a sample of Facilities using the NERC sampling guidance to select the number of Facilities. These reviews are ongoing and are scheduled to be completed by the end of Q1 2021. The specific timeframe for completion will be included in the Mitigation Plan. Any potential FAC-008 issues identified under these reviews will be promptly self-disclosed to RF and any associated reporting will be coordinated through RF enforcement.

PHI and Exelon senior management are being briefed on a regular basis and are actively involved in the oversight of this matter and the progress to complete reviews and correct deficiencies. These briefings, updates and oversight will continue through the completion of Mitigation Plan actions as Exelon works to correct the issues.

Mitigating Activities:

Description of Mitigating Activities and Preventative Measure: The PHI Utilities are in the process of completing extent of condition reviews and undergoing program improvements pursuant to an ongoing root cause investigation. Any improvements to the PHI process will also be carried into the planned and in-progress consolidation of Transmission Planning within Exelon Utilities under a single team. Exelon is evaluating the reliability impact of any discrepancies to Facility Ratings and is working to address any errors as soon as practicable given the need to perform the necessary reliability checks before any correction. Before correction, Exelon is examining any potential operational and planning impacts prior to a correction. Updates related to corrections will be included in subsequent quarterly submittals to RF.

Date Mitigating Activities Completed:

Impact and Risk Assessment:

Potential Impact to BPS: Minimal

Actual Impact to BPS: Minimal

Description of Potential and Actual Impact to BPS: Exelon Utilities' Transmission System Operations and Transmission Planning Groups are reviewing the identified Facility Rating discrepancies to determine the potential impact to the Bulk Electric System. Based on the preliminary assessments described above and applying the ReliabilityFirst Risk/Harm Evaluation, PHI views the potential impact to the Bulk Electric System for the ratings errors identified as minimal. Exelon is working diligently to determine the full scope of the issues and will provide RF with an impact assessment for each Facility along with future disclosures. The Risk/Harm evaluation will also be reevaluated once the full scope of issues is identified.

Exelon Utilities' Transmission System Operations and Transmission Planning Groups are reviewing the identified Facility Rating discrepancies to determine the impact to the Bulk Electric System. Based on the preliminary assessments described above, the actual impact to the Bulk Electric System for the ratings errors identified is minimal. To date, there is no indication of an adverse impact to the operation of the BES. Exelon is working diligently to determine the full scope of the issues and will provide RF with an impact assessment for each Facility along with future disclosures.

Risk Assessment of Impact to BPS: Exelon Utilities' Transmission System Operations and Transmission Planning Groups are reviewing the identified Facility Rating discrepancies to complete the risk assessment. Exelon is working diligently to determine the full scope of the issues and will provide RF with a risk assessment of impact to the BES along with future disclosures.

Additional Entity Comments:

Self Report

Additional Comments		
From	Comment	User Name
No Comments		

Additional Documents			
From	Document Name	Description	Size in Bytes
No Documents			

Self Report

Entity Name: Delmarva Power & Light Company (DP&L)

NERC ID: NCR00752

Standard: FAC-009-1

Requirement: FAC-009-1 R2.

Date Submitted: April 15, 2020

Has this violation previously No
been reported or discovered?:

Entity Information:

Joint Registration
Organization (JRO) ID:

Coordinated Functional
Registration (CFR) ID:

Contact Name: Mark Yerger

Contact Phone: 3024544121

Contact Email: mark.yerger@pepcoholdings.com

Violation:

Violation Start Date: June 18, 2007

End/Expected End Date: March 01, 2021

Reliability Functions: Transmission Owner (TO)

Is Possible Violation still Yes
occurring?:

Number of Instances: 200

Has this Possible Violation No
been reported to other
Regions?:

Which Regions:

Date Reported to Regions:

Detailed Description and Cause of Possible Violation: Atlantic City Electric ("ACE"), Delmarva Power & Light ("DPL"), and Potomac Electric Power Company ("Pepco") (together, the "PHI Utilities" or "PHI") have identified potential discrepancies related to FAC-008 compliance at multiple PHI Facilities. As described further below, the potential discrepancies relate primarily to the implementation of the PHI Utilities' FAC-008 Facility Ratings programs and stem from PHI's FAC-008 extent of condition reviews, which began in April 2019, following the identification of a single issue disclosed in Self-Log #92.

In this Self-Report, PHI is providing ReliabilityFirst ("RF") with: (1) a summary of the extent of condition work stemming from Self-Log #92; (2) greater detail on the quantity and types of rating discrepancies identified; and (3) a description of next steps that PHI is taking to complete review work and disclose any additional discrepancies to RF. Because the reviews uncovered multiple discrepancies across all PHI Utilities, PHI is Self-Reporting the initial and future extent of condition findings per agreement with ReliabilityFirst. As additional background, Exelon is also providing RF with an overview of related FAC-008 extent of condition activities occurring across the Exelon enterprise in light of the discovery of issues at PHI.

Exelon will continue to be fully transparent with RF regarding the resolution of potential FAC-008 issues at PHI and across Exelon's NERC Registered Entities consistent with management expectations and Exelon's NERC investigation process.

Self Report

Exelon Self-Log #92

In April 2019, PHI initiated an evaluation per Exelon's NERC investigation process of a potential FAC-008 Requirement R8 issue at ACE. As reported in Exelon Self-Log #92, ACE discovered that it had temporarily placed a transmission line back into service without communicating the applicable Facility Rating to PJM Interconnection ("PJM") via a PJM TERM ticket. This issue was first disclosed to RF through conversation with RF Legal in July 2019. In follow-up discussions in December 2019, Exelon disclosed that PHI had identified additional FAC-008 discrepancies and was performing an extended review prior to reporting these additional issues. Exelon initiated an ongoing evaluation into ratings discrepancies as a set of mitigating actions in Self-Log #92. Self-Log #92 included three tasks to complete extent of condition reviews by May 31, 2020 for the PHI Utilities.

FAC-008 Ratings Discrepancies with the PHI Utilities

After discovery of the initial issue at ACE in Self-Log #92, PHI began to compare Facility Ratings against PJM records to determine whether all PHI documented Facility Ratings match the PJM records. This initial review revealed discrepancies with other ACE Facility Ratings. As a result, in May 2019, Exelon expanded the scope of the Facility Ratings reviews to include DPL and Pepco. The expanded review involved performing a full records check by comparing PHI EMS ratings and ratings at PJM to source documentation of the PHI Facility Ratings, and by walkdowns of each BES substation to compare field conditions with source documentation of the PHI Facility Ratings. The goal was to ensure the Equipment and Facility Ratings documented in PHI's Facility Ratings database (called the "Z-Table") were correct and accurately reflected in the Facility Ratings documented in PHI's and PJM's EMS. Due to the extent of issues identified during the initial walkdowns and documentation reviews, the PHI Utilities retained third-party consultants in January 2020 to challenge and review the work by PHI.

As of the submission of this Self-Report, the PHI Utilities have identified approximately 200 Facilities with some discrepancies ranging from differences in the overall Facility Rating to a single individual Equipment Rating at the Facility with no impact to the Facility Rating. In some cases, multiple discrepancies have been identified at a single Facility. While those findings are still subject to third-party consultant review and confirmation, the issues identified to date are attributable to a number of apparent causes, ranging from rounding methods in ratings calculations to field conditions not fully reflected in rating databases. PHI, with support from Exelon personnel, has initiated a root cause investigation to identify the causes underlying the discrepancies that have been identified so far and along with the appropriate corrective actions to prevent recurrence. This root cause investigation is targeted to complete in April 2020. On February 18, 2020, in response to a concurrent audit request, Exelon provided RF legal with a preliminary list of discrepancies identified by the PHI Utilities related to the Facilities sampled by RF as part of the audit of FAC-008-3.

The PHI Utilities are working on a schedule to complete a full review and validation of the identified discrepancies. The work to complete adjustments to any Facility Ratings may continue through end of Q3 2020. PHI will provide a separate list of Facilities and any rating discrepancies associated with each Facility to RF each quarter as full reviews are completed. These disclosures will be coordinated and sent through RF Legal via the RF Extranet. Once internal and third-party reviews of an entire Facility have been completed, PHI will add any discrepancies attributable to that Facility into the RF disclosure file and provide subsequent updates to RF. In this manner, RF will be able to track the overall completion progress of each Facility review and maintain visibility of any resulting discrepancies.

Potential Reliability Risks

To date, PHI has evaluated all of the identified discrepancies by performing

Self Report

evaluations of Facility Ratings changes against planning criteria. PHI has not identified any current planning criteria violations for Facilities identified for a ratings decrease if changes were made today. PHI's internal review considered NERC, PJM, and PHI planning criteria. This analysis is based on internal preliminary planning evaluations and may be updated.

Operational reviews have also been performed to assess the maximum historical load on Facilities identified for a ratings decrease. This method is employed to determine if a Facility has been loaded above the MVA limits that should have been in place. To date, it has been determined that one Pepco Facility was loaded above its normal rating. The Facility was loaded above its normal rating for approximately 4 minutes but was not loaded above its emergency limit. Additional historic loading reviews will be conducted as ongoing facility rating updates are completed to ensure any additional historic ratings violations are identified and evaluated for impact.

PHI will continue to perform similar assessments for any additional Facilities that require a decrease in ratings against both planning criteria and historical operational loading levels.

Causal Analysis and Mitigation

As described above, Exelon is conducting an ongoing root cause investigation with respect to the PHI Utilities and will identify process improvements and initial corrective actions to address any identified issues. Investigation results thus far indicate PHI's controls to ensure accuracy over time were not effective. Corrective actions will be detailed in a follow-up Mitigation Plan to this Self-Report in May 2020. Any additional causes identified following the completion of the root cause investigation and submission of the Mitigation Plan will be provided to RF along with any necessary additional mitigating activities.

Next Steps for PHI

Exelon will continue to provide updates to RF in connection with the evaluations described herein and mitigation activities. As with the February 18, 2020, disclosure provided to RF, Exelon will submit a more detailed list of ratings discrepancies for additional Facilities through the RF Extranet portal. Subsequent disclosures will follow as each Facility is fully evaluated and validated by the third-party review described above.

FAC-008 Reviews Across Other Exelon Registered Entities

Exelon committed to review the FAC-008 compliance posture across all Exelon utility operating companies, even prior to the independent discovery of the issue identified in ACE Self-Log #92. In response to growing NERC concerns over industry FAC-008/FAC-009 compliance, the centralized Exelon NERC Compliance Management Team ("CMT") briefed the Company's NERC Steering Committee on the industry FAC-008 enforcement actions in August 2018. In the subsequent months, CMT solidified a plan to perform a comprehensive, enterprise-wide assessment of FAC-008 programs within Exelon during 2019. Exelon scheduled an internal FAC-008 controls evaluation for all Exelon entities through the CMT's Internal Self-Assessment Assist Program ("ISAP"), involving in-depth reviews of internal controls. Out of this evaluation, which was held in September 2019, CMT included a recommendation to incorporate facility walkdowns in the periodic verification of Facility Ratings in follow-up actions to the ISAP.

Following the discovery of the issue underlying Self-Log #92, PHI accelerated its review activities ahead of the ISAP completion. Exelon has provided this information on its internal efforts to note that the issues at PHI would likely have been discovered during facility walkdowns prompted by this ISAP had the issue at ACE not been uncovered.

Following the discovery of potential issues at PHI, Exelon has initiated FAC-008 reviews at all Exelon NERC Registered Entities, including Exelon

Self Report

Generation Power and Exelon Nuclear. These reviews will perform a check of a sample of Facilities using the NERC sampling guidance to select the number of Facilities. These reviews are ongoing and are scheduled to be completed by the end of Q1 2021. The specific timeframe for completion will be included in the Mitigation Plan. Any potential FAC-008 issues identified under these reviews will be promptly self-disclosed to RF and any associated reporting will be coordinated through RF enforcement.

PHI and Exelon senior management are being briefed on a regular basis and are actively involved in the oversight of this matter and the progress to complete reviews and correct deficiencies. These briefings, updates and oversight will continue through the completion of Mitigation Plan actions as Exelon works to correct the issues.

Mitigating Activities:

Description of Mitigating Activities and Preventative Measure: The PHI Utilities are in the process of completing extent of condition reviews and undergoing program improvements pursuant to an ongoing root cause investigation. Any improvements to the PHI process will also be carried into the planned and in-progress consolidation of Transmission Planning within Exelon Utilities under a single team. Exelon is evaluating the reliability impact of any discrepancies to Facility Ratings and is working to address any errors as soon as practicable given the need to perform the necessary reliability checks before any correction. Before correction, Exelon is examining any potential operational and planning impacts prior to a correction. Updates related to corrections will be included in subsequent quarterly submittals to RF.

Date Mitigating Activities Completed:

Impact and Risk Assessment:

Potential Impact to BPS: Minimal

Actual Impact to BPS: Minimal

Description of Potential and Actual Impact to BPS: Exelon Utilities' Transmission System Operations and Transmission Planning Groups are reviewing the identified Facility Rating discrepancies to determine the potential impact to the Bulk Electric System. Based on the preliminary assessments described above and applying the ReliabilityFirst Risk/Harm Evaluation, PHI views the potential impact to the Bulk Electric System for the ratings errors identified as minimal. Exelon is working diligently to determine the full scope of the issues and will provide RF with an impact assessment for each Facility along with future disclosures. The Risk/Harm evaluation will also be reevaluated once the full scope of issues is identified.

Exelon Utilities' Transmission System Operations and Transmission Planning Groups are reviewing the identified Facility Rating discrepancies to determine the impact to the Bulk Electric System. Based on the preliminary assessments described above, the actual impact to the Bulk Electric System for the ratings errors identified is minimal. To date, there is no indication of an adverse impact to the operation of the BES. Exelon is working diligently to determine the full scope of the issues and will provide RF with an impact assessment for each Facility along with future disclosures.

Risk Assessment of Impact to BPS: Exelon Utilities' Transmission System Operations and Transmission Planning Groups are reviewing the identified Facility Rating discrepancies to complete the risk assessment. Exelon is working diligently to determine the full scope of the issues and will provide RF with a risk assessment of impact to the BES along with future disclosures.

Self Report

Additional Entity Comments:

Additional Comments		
From	Comment	User Name
No Comments		

Additional Documents			
From	Document Name	Description	Size in Bytes
No Documents			

Self Report

Entity Name: Potomac Electric Power Company (Pepco)

NERC ID: NCR00881

Standard: FAC-009-1

Requirement: FAC-009-1 R2.

Date Submitted: April 15, 2020

Has this violation previously No
been reported or discovered?:

Entity Information:

Joint Registration
Organization (JRO) ID:

Coordinated Functional
Registration (CFR) ID:

Contact Name: Mark Yerger

Contact Phone: 3024544121

Contact Email: mark.yerger@pepcoholdings.com

Violation:

Violation Start Date: June 18, 2007

End/Expected End Date: March 01, 2021

Reliability Functions: Transmission Owner (TO)

Is Possible Violation still Yes
occurring?:

Number of Instances: 200

Has this Possible Violation No
been reported to other
Regions?:

Which Regions:

Date Reported to Regions:

Detailed Description and Cause of Possible Violation: Atlantic City Electric ("ACE"), Delmarva Power & Light ("DPL"), and Potomac Electric Power Company ("Pepco") (together, the "PHI Utilities" or "PHI") have identified potential discrepancies related to FAC-008 compliance at multiple PHI Facilities. As described further below, the potential discrepancies relate primarily to the implementation of the PHI Utilities' FAC-008 Facility Ratings programs and stem from PHI's FAC-008 extent of condition reviews, which began in April 2019, following the identification of a single issue disclosed in Self-Log #92.

In this Self-Report, PHI is providing ReliabilityFirst ("RF") with: (1) a summary of the extent of condition work stemming from Self-Log #92; (2) greater detail on the quantity and types of rating discrepancies identified; and (3) a description of next steps that PHI is taking to complete review work and disclose any additional discrepancies to RF. Because the reviews uncovered multiple discrepancies across all PHI Utilities, PHI is Self-Reporting the initial and future extent of condition findings per agreement with ReliabilityFirst. As additional background, Exelon is also providing RF with an overview of related FAC-008 extent of condition activities occurring across the Exelon enterprise in light of the discovery of issues at PHI.

Exelon will continue to be fully transparent with RF regarding the resolution of potential FAC-008 issues at PHI and across Exelon's NERC Registered Entities consistent with management expectations and Exelon's NERC investigation process.

Self Report

Exelon Self-Log #92

In April 2019, PHI initiated an evaluation per Exelon's NERC investigation process of a potential FAC-008 Requirement R8 issue at ACE. As reported in Exelon Self-Log #92, ACE discovered that it had temporarily placed a transmission line back into service without communicating the applicable Facility Rating to PJM Interconnection ("PJM") via a PJM TERM ticket. This issue was first disclosed to RF through conversation with RF Legal in July 2019. In follow-up discussions in December 2019, Exelon disclosed that PHI had identified additional FAC-008 discrepancies and was performing an extended review prior to reporting these additional issues. Exelon initiated an ongoing evaluation into ratings discrepancies as a set of mitigating actions in Self-Log #92. Self-Log #92 included three tasks to complete extent of condition reviews by May 31, 2020 for the PHI Utilities.

FAC-008 Ratings Discrepancies with the PHI Utilities

After discovery of the initial issue at ACE in Self-Log #92, PHI began to compare Facility Ratings against PJM records to determine whether all PHI documented Facility Ratings match the PJM records. This initial review revealed discrepancies with other ACE Facility Ratings. As a result, in May 2019, Exelon expanded the scope of the Facility Ratings reviews to include DPL and Pepco. The expanded review involved performing a full records check by comparing PHI EMS ratings and ratings at PJM to source documentation of the PHI Facility Ratings, and by walkdowns of each BES substation to compare field conditions with source documentation of the PHI Facility Ratings. The goal was to ensure the Equipment and Facility Ratings documented in PHI's Facility Ratings database (called the "Z-Table") were correct and accurately reflected in the Facility Ratings documented in PHI's and PJM's EMS. Due to the extent of issues identified during the initial walkdowns and documentation reviews, the PHI Utilities retained third-party consultants in January 2020 to challenge and review the work by PHI.

As of the submission of this Self-Report, the PHI Utilities have identified approximately 200 Facilities with some discrepancies ranging from differences in the overall Facility Rating to a single individual Equipment Rating at the Facility with no impact to the Facility Rating. In some cases, multiple discrepancies have been identified at a single Facility. While those findings are still subject to third-party consultant review and confirmation, the issues identified to date are attributable to a number of apparent causes, ranging from rounding methods in ratings calculations to field conditions not fully reflected in rating databases. PHI, with support from Exelon personnel, has initiated a root cause investigation to identify the causes underlying the discrepancies that have been identified so far and along with the appropriate corrective actions to prevent recurrence. This root cause investigation is targeted to complete in April 2020. On February 18, 2020, in response to a concurrent audit request, Exelon provided RF legal with a preliminary list of discrepancies identified by the PHI Utilities related to the Facilities sampled by RF as part of the audit of FAC-008-3.

The PHI Utilities are working on a schedule to complete a full review and validation of the identified discrepancies. The work to complete adjustments to any Facility Ratings may continue through end of Q3 2020. PHI will provide a separate list of Facilities and any rating discrepancies associated with each Facility to RF each quarter as full reviews are completed. These disclosures will be coordinated and sent through RF Legal via the RF Extranet. Once internal and third-party reviews of an entire Facility have been completed, PHI will add any discrepancies attributable to that Facility into the RF disclosure file and provide subsequent updates to RF. In this manner, RF will be able to track the overall completion progress of each Facility review and maintain visibility of any resulting discrepancies.

Potential Reliability Risks

To date, PHI has evaluated all of the identified discrepancies by performing

Self Report

evaluations of Facility Ratings changes against planning criteria. PHI has not identified any current planning criteria violations for Facilities identified for a ratings decrease if changes were made today. PHI's internal review considered NERC, PJM, and PHI planning criteria. This analysis is based on internal preliminary planning evaluations and may be updated.

Operational reviews have also been performed to assess the maximum historical load on Facilities identified for a ratings decrease. This method is employed to determine if a Facility has been loaded above the MVA limits that should have been in place. To date, it has been determined that one Pepco Facility was loaded above its normal rating. The Facility was loaded above its normal rating for approximately 4 minutes but was not loaded above its emergency limit. Additional historic loading reviews will be conducted as ongoing facility rating updates are completed to ensure any additional historic ratings violations are identified and evaluated for impact.

PHI will continue to perform similar assessments for any additional Facilities that require a decrease in ratings against both planning criteria and historical operational loading levels.

Causal Analysis and Mitigation

As described above, Exelon is conducting an ongoing root cause investigation with respect to the PHI Utilities and will identify process improvements and initial corrective actions to address any identified issues. Investigation results thus far indicate PHI's controls to ensure accuracy over time were not effective. Corrective actions will be detailed in a follow-up Mitigation Plan to this Self-Report in May 2020. Any additional causes identified following the completion of the root cause investigation and submission of the Mitigation Plan will be provided to RF along with any necessary additional mitigating activities.

Next Steps for PHI

Exelon will continue to provide updates to RF in connection with the evaluations described herein and mitigation activities. As with the February 18, 2020, disclosure provided to RF, Exelon will submit a more detailed list of ratings discrepancies for additional Facilities through the RF Extranet portal. Subsequent disclosures will follow as each Facility is fully evaluated and validated by the third-party review described above.

FAC-008 Reviews Across Other Exelon Registered Entities

Exelon committed to review the FAC-008 compliance posture across all Exelon utility operating companies, even prior to the independent discovery of the issue identified in ACE Self-Log #92. In response to growing NERC concerns over industry FAC-008/FAC-009 compliance, the centralized Exelon NERC Compliance Management Team ("CMT") briefed the Company's NERC Steering Committee on the industry FAC-008 enforcement actions in August 2018. In the subsequent months, CMT solidified a plan to perform a comprehensive, enterprise-wide assessment of FAC-008 programs within Exelon during 2019. Exelon scheduled an internal FAC-008 controls evaluation for all Exelon entities through the CMT's Internal Self-Assessment Assist Program ("ISAP"), involving in-depth reviews of internal controls. Out of this evaluation, which was held in September 2019, CMT included a recommendation to incorporate facility walkdowns in the periodic verification of Facility Ratings in follow-up actions to the ISAP.

Following the discovery of the issue underlying Self-Log #92, PHI accelerated its review activities ahead of the ISAP completion. Exelon has provided this information on its internal efforts to note that the issues at PHI would likely have been discovered during facility walkdowns prompted by this ISAP had the issue at ACE not been uncovered.

Following the discovery of potential issues at PHI, Exelon has initiated FAC-008 reviews at all Exelon NERC Registered Entities, including Exelon

Self Report

Generation Power and Exelon Nuclear. These reviews will perform a check of a sample of Facilities using the NERC sampling guidance to select the number of Facilities. These reviews are ongoing and are scheduled to be completed by the end of Q1 2021. The specific timeframe for completion will be included in the Mitigation Plan. Any potential FAC-008 issues identified under these reviews will be promptly self-disclosed to RF and any associated reporting will be coordinated through RF enforcement.

PHI and Exelon senior management are being briefed on a regular basis and are actively involved in the oversight of this matter and the progress to complete reviews and correct deficiencies. These briefings, updates and oversight will continue through the completion of Mitigation Plan actions as Exelon works to correct the issues.

Mitigating Activities:

Description of Mitigating Activities and Preventative Measure: The PHI Utilities are in the process of completing extent of condition reviews and undergoing program improvements pursuant to an ongoing root cause investigation. Any improvements to the PHI process will also be carried into the planned and in-progress consolidation of Transmission Planning within Exelon Utilities under a single team. Exelon is evaluating the reliability impact of any discrepancies to Facility Ratings and is working to address any errors as soon as practicable given the need to perform the necessary reliability checks before any correction. Before correction, Exelon is examining any potential operational and planning impacts prior to a correction. Updates related to corrections will be included in subsequent quarterly submittals to RF.

Date Mitigating Activities Completed:

Impact and Risk Assessment:

Potential Impact to BPS: Minimal

Actual Impact to BPS: Minimal

Description of Potential and Actual Impact to BPS: Exelon Utilities' Transmission System Operations and Transmission Planning Groups are reviewing the identified Facility Rating discrepancies to determine the potential impact to the Bulk Electric System. Based on the preliminary assessments described above and applying the ReliabilityFirst Risk/Harm Evaluation, PHI views the potential impact to the Bulk Electric System for the ratings errors identified as minimal. Exelon is working diligently to determine the full scope of the issues and will provide RF with an impact assessment for each Facility along with future disclosures. The Risk/Harm evaluation will also be reevaluated once the full scope of issues is identified.

Exelon Utilities' Transmission System Operations and Transmission Planning Groups are reviewing the identified Facility Rating discrepancies to determine the impact to the Bulk Electric System. Based on the preliminary assessments described above, the actual impact to the Bulk Electric System for the ratings errors identified is minimal. To date, there is no indication of an adverse impact to the operation of the BES. Exelon is working diligently to determine the full scope of the issues and will provide RF with an impact assessment for each Facility along with future disclosures.

Risk Assessment of Impact to BPS: Exelon Utilities' Transmission System Operations and Transmission Planning Groups are reviewing the identified Facility Rating discrepancies to complete the risk assessment. Exelon is working diligently to determine the full scope of the issues and will provide RF with a risk assessment of impact to the BES along with future disclosures.

Self Report

Additional Entity Comments:

Additional Comments		
From	Comment	User Name
No Comments		

Additional Documents			
From	Document Name	Description	Size in Bytes
No Documents			

Mitigation Plan

Mitigation Plan Summary

Registered Entity: Atlantic City Electric Company

Mitigation Plan Code:

Mitigation Plan Version: 1

NERC Violation ID	Requirement	Violation Validated On
RFC2020023212	FAC-008-3 R6.	

Mitigation Plan Submitted On: June 04, 2020

Mitigation Plan Accepted On:

Mitigation Plan Proposed Completion Date: March 31, 2021

Actual Completion Date of Mitigation Plan:

Mitigation Plan Certified Complete by ACE On:

Mitigation Plan Completion Verified by RF On:

Mitigation Plan Completed? (Yes/No): No

Compliance Notices

Section 6.2 of the NERC CMEP sets forth the information that must be included in a Mitigation Plan. The Mitigation Plan must include:

- (1) The Registered Entity's point of contact for the Mitigation Plan, who shall be a person (i) responsible for filing the Mitigation Plan, (ii) technically knowledgeable regarding the Mitigation Plan, and (iii) authorized and competent to respond to questions regarding the status of the Mitigation Plan. This person may be the Registered Entity's point of contact described in Section B.
 - (2) The Alleged or Confirmed Violation(s) of Reliability Standard(s) the Mitigation Plan will correct.
 - (3) The cause of the Alleged or Confirmed Violation(s).
 - (4) The Registered Entity's action plan to correct the Alleged or Confirmed Violation(s).
 - (5) The Registered Entity's action plan to prevent recurrence of the Alleged or Confirmed violation(s).
 - (6) The anticipated impact of the Mitigation Plan on the bulk power system reliability and an action plan to mitigate any increased risk to the reliability of the bulk power-system while the Mitigation Plan is being implemented.
 - (7) A timetable for completion of the Mitigation Plan including the completion date by which the Mitigation Plan will be fully implemented and the Alleged or Confirmed Violation(s) corrected.
 - (8) Implementation milestones no more than three (3) months apart for Mitigation Plans with expected completion dates more than three (3) months from the date of submission. Additional violations could be determined or recommended to the applicable governmental authorities for not completing work associated with accepted milestones.
 - (9) Any other information deemed necessary or appropriate.
 - (10) The Mitigation Plan shall be signed by an officer, employee, attorney or other authorized representative of the Registered Entity, which if applicable, shall be the person that signed the Self Certification or Self Reporting submittals.
 - (11) This submittal form may be used to provide a required Mitigation Plan for review and approval by regional entity(ies) and NERC.
- The Mitigation Plan shall be submitted to the regional entity(ies) and NERC as confidential information in accordance with Section 1500 of the NERC Rules of Procedure.
 - This Mitigation Plan form may be used to address one or more related alleged or confirmed violations of one Reliability Standard. A separate mitigation plan is required to address alleged or confirmed violations with respect to each additional Reliability Standard, as applicable.
 - If the Mitigation Plan is accepted by regional entity(ies) and approved by NERC, a copy of this Mitigation Plan will be provided to the Federal Energy Regulatory Commission or filed with the applicable governmental authorities for approval in Canada.
 - Regional Entity(ies) or NERC may reject Mitigation Plans that they determine to be incomplete or inadequate.
 - Remedial action directives also may be issued as necessary to ensure reliability of the bulk power system.
 - The user has read and accepts the conditions set forth in these Compliance Notices.

Entity Information

Identify your organization:

Entity Name: Atlantic City Electric Company

NERC Compliance Registry ID: NCR00688

Address: 5100 Harding Highway
Mays Landing NJ 08330

Identify the individual in your organization who will serve as the Contact to the Regional Entity regarding this Mitigation Plan. This person shall be technically knowledgeable regarding this Mitigation Plan and authorized to respond to Regional Entity regarding this Mitigation Plan:

Name: Mark Yerger

Title: Manager, Utility Compliance

Email: mark.yerger@pepcoholdings.com

Phone: 302-454-4121

Violation(s)

This Mitigation Plan is associated with the following violation(s) of the reliability standard listed below:

Violation ID	Date of Violation	Requirement
Requirement Description		
RFC2020023212	01/01/2013	FAC-008-3 R6.
Each Transmission Owner and Generator Owner shall have Facility Ratings for its solely and jointly owned Facilities that are consistent with the associated Facility Ratings methodology or documentation for determining its Facility Ratings.		

Brief summary including the cause of the violation(s) and mechanism in which it was identified:

On April 15, 2020, Atlantic City Electric Company ("ACE"), Delmarva Power & Light Company ("DPL"), and Potomac Electric Power Company ("Pepco") (together, the "PHI Utilities" or "PHI") submitted self-reports to ReliabilityFirst disclosing potential discrepancies related to FAC-009/FAC-008 compliance at multiple PHI Facilities. The potential discrepancies were identified during extent of condition reviews, following the discovery of the issue reported in Exelon Self-Log #92. ACE, DPL, and Pepco have been assigned Open Action Enforcement numbers RFC2020023212, RFC2020023213, and RFC2020023214 respectively by ReliabilityFirst ("RF") for processing the extent of condition findings. The self-report, as submitted, included: (1) a summary of the extent of condition work stemming from Self-Log #92; (2) detail as to the quantity and types of rating discrepancies identified; and (3) a description of next steps that PHI is taking to complete review work and disclose any additional discrepancies that may be discovered during extent of condition work.

In this Mitigation Plan, the PHI Utilities describe the results of the root cause analysis performed and completed in April 2020. The root cause analysis was led by a senior performance assessment specialist at PHI and utilized the TapRoot systematic root cause analysis process. The analysis team included team members and supporting staff, representing equipment and facility rating engineers at each of the PHI Utilities; transmission planning staff in the Exelon Utilities; equipment and facility rating engineers from other Exelon utilities; NERC compliance specialists; and legal staff. Results of the analysis and the resulting corrective actions were reviewed and approved by senior leadership within PHI, Exelon Utilities, and the centralized NERC Compliance & Security organization, who has oversight of the NERC Compliance Program at Exelon.

The analysis determined that ACE, DPL, and Pepco's equipment and Facility Rating program documented practices as well as the program process steps were not implemented in a consistent and systematic manner that ensured accurate equipment and Facility Ratings throughout the lifecycle of the process. PHI's overall rating process relied on performance from multiple teams, at various steps, each with specific tasks. These steps did not include effective internal controls to provide accuracy in information recording at each stage, such as sufficient independent reviews of data inputs to internal databases (e.g., SERS and Z-Table), PHI EMS systems, and eDART. As a result, there was a higher potential for human error in the process.

The program documentation also did not have clear ownership or accountability for the entire transmission equipment and Facility Rating program, with each team managing its own portion of the process. This lack of clear structure created communication gaps between performance teams that increased the risk of error. Within the program documentation itself, the root cause analysis team determined the roles and responsibilities were not articulated well nor detailed enough to address clear ownership and accountability. The performing teams did not have comprehensive training on the Facility Rating process and effective documentation of the underlying steps required to support their role in the overall process. Teams relied on person-to-person knowledge transfer for training and understanding, which created risk of errors in equipment and Facility Ratings.

More specifically, in several cases, changes in-the-field were not effectively communicated and recorded among the various groups involved in the Facility Rating process, and ultimately to the Planning Engineer responsible for maintaining the Facility Ratings Database (i.e. Z-table). In some cases, relay thermal and transient load limits were not accurately recorded in internal databases.

The mitigation actions and strategy for correcting the PHI equipment and Facility Rating program are described in detail in the sections that follow.

ACE, DPL, and Pepco have completed walkdown reviews of all Facilities, utilizing both internal staff and third-party reviewers. Subject matter experts from ACE, DPL, and Pepco as well as and Exelon are in the process of reviewing and comparing field documentation against internal records, to confirm any potential discrepancies for disclosure to RF. Exelon's centralized Transmission Reliability Planning team within Exelon Utilities is tracking and compiling the results, with a targeted first submission by the end of June 2020. As noted in the actions below, Exelon and the PHI Utilities will provide the details of potential discrepancies, including any additional causes identified, any corrective actions taken to date for potential discrepancies, and discussion of the relative risk of each potential discrepancy.

Relevant information regarding the identification of the violation(s):

In April 2019, PHI initiated an evaluation per Exelon's NERC internal investigation process of a potential FAC-008, Requirement R8 issue at ACE. As reported in Exelon Self-Log #92, ACE discovered that it had temporarily placed a transmission line back into service without communicating the applicable Facility Rating to PJM Interconnection ("PJM"), via a PJM TERM ticket. The issue was first disclosed to RF through conversation with RF Legal in July 2019. In follow-up discussions with RF in December 2019, Exelon disclosed that PHI had identified additional FAC-008 discrepancies through ongoing evaluations of Facility Ratings under mitigating activities performed for Self-Log #92. As a result, PHI was performing an extended review, prior to reporting these additional issues. Self-Log #92 included three tasks to complete extent of condition reviews by May 31, 2020 for the PHI Utilities, which have been merged into this Mitigation Plan. During PHI's recent RF audit, which included FAC-008, PHI provided the audit team with the potential discrepancies, from its internal list, related to the sample of Facilities requested. As noted above, Exelon is finalizing the internal list of potential discrepancies to provide to RF, which will include all PHI Facilities, along with those included in the audit sample set.

Plan Details

Identify and describe the action plan, including specific tasks and actions that your organization is proposing to undertake, or which it undertook if this Mitigation Plan has been completed, to correct the violation(s) identified above in Section C.1 of this form:

ACE, DPL, and Pepco as well as Exelon Transmission Reliability Planning have established several corrective actions designed to systematically improve the equipment and Facility Rating program at the PHI Utilities. Actions include both short-term and long-term improvements to the program. The actions also include milestones to document the completion of the third-party reviews and identify potential discrepancies, along with any associated corrections, to RF at regular intervals as the work progresses.

Actions have been included to improve procedural, technical, and detective controls as well as provide training to performers. Short-term actions include reinforcing existing roles and responsibilities through the issuance of a Technical Bulletin to each program stakeholder group and establishing data validation steps, such as peer checks overlaid onto the existing process steps which act to improve data accuracy.

Long-term actions include redesigning program level documentation and training on the revised and newly created documents. Exelon has recently centralized its Transmission Planning teams and is in the process of creating new documentation, which will coordinate with the revised PHI Facility Ratings methodology, to create a holistic set of governing and implementing procedures for the PHI transmission equipment and Facility Rating program. In addition, performer level Job Aids will be created and implemented to detail execution and data validation steps necessary to perform each group's role within the Transmission Equipment and Facility Rating program. The Job Aids will include instruction on use of any tools needed to perform work. Comprehensive training will also be developed and assigned on an annual basis, to maintain the knowledge base and competency within performance teams over time, related to the PHI transmission equipment and Facility Rating program.

In addition to these improvements, PHI's NERC Compliance support team will design a comprehensive compliance monitoring plan to ensure that the FAC-008 program improvements resolve the existing issues and guard against errors in the future. The plan will include oversight roles and tasks for subject matter experts and compliance staff in the process. The plan will address periodic reviews of PHI's methodology and associated FAC-008 processes, periodic field verification sampling, periodic equipment surveys, and sampling of end-to-end equipment and Facility Ratings.

Provide the timetable for completion of the Mitigation Plan, including the completion date by which the Mitigation Plan will be fully implemented and the violations associated with this Mitigation Plan are corrected:

Proposed Completion date of Mitigation Plan: March 31, 2021

Milestone Activities, with completion dates, that your organization is proposing for this Mitigation Plan:

Milestone Activity	Description	*Proposed Completion Date (Shall not be greater than 3 months apart)	Actual Completion Date	Entity Comment on Milestone Completion	Extension Request Pending
Task 1	Implement controls to improve data accuracy through a multi-peer check process to parallel the existing process. Various peer checks will be used to	05/15/2020			No

Milestone Activity	Description	*Proposed Completion Date (Shall not be greater than 3 months apart)	Actual Completion Date	Entity Comment on Milestone Completion	Extension Request Pending
	validate all equipment or Facility ratings changes in each group responsible for maintenance of accurate equipment or Facility Ratings. Peer check steps should include documentation of the peer check and the performer. The purpose is to improve controls until PHI's revised process for Facility Ratings is implemented. This interim process will be retired upon the effective date of the revised Facility Ratings process documentation, which will include updates to internal controls.				
Task 2	Communicate interim peer check process/job aid to validate all equipment or Facility ratings changes to each group responsible for peer checks and obtain key manager acknowledgment of implementation of peer check process.	05/15/2020			No
Task 3	PHI procedure "PHI-FAC-008-FINAL (Revision 9.0) - Establish and Communicate Facility Ratings" submitted to	06/01/2020			No

Milestone Activity	Description	*Proposed Completion Date (Shall not be greater than 3 months apart)	Actual Completion Date	Entity Comment on Milestone Completion	Extension Request Pending
	the Exelon Management Model with notification to Substation Engineering and Drafting, Transmission Engineering, Protection and Control Engineering, T&S Standards and Equipment Engineering, Transmission Reliability Planning, System Operations, and Meter Services leads.				
Task 4	Establish a standard repository for relay load limits across PHI, establish notification updates to stakeholders, and migrate all relay load limit data to that standard repository. Identify and establish subscriptions for appropriate recipients of update notifications.	06/05/2020			No
Task 5	Draft and communicate Technical Bulletin to reinforce expectations to stakeholders who are responsible for the Transmission equipment and facility ratings process. The bulletin will review the responsibilities of each stakeholder	06/15/2020			No

Milestone Activity	Description	*Proposed Completion Date (Shall not be greater than 3 months apart)	Actual Completion Date	Entity Comment on Milestone Completion	Extension Request Pending
	group. The following stakeholder groups will be addressed: Area Maintenance Engineering Team (T&S), Business Planning & Support (T&S), Meter Services, Operations & Control Center, Project & Construction Management, Protection & Control Engineering (T&S), Standards & Equipment Engineering (T&S), Substation Construction, Maintenance, and Relay (T&S), Substation Engineering & Drafting, Transmission Engineering-Overhead & Underground (T&S), Transmission Reliability Planning.				
Task 6	Establish a compliance monitoring plan in conjunction with PHI FAC-008 Standard Owners to evaluate PHI facility rating program implementation accuracy and effectiveness of internal controls. Plan should address periodic review of methodology and associated FAC-008	06/30/2020			No

Milestone Activity	Description	*Proposed Completion Date (Shall not be greater than 3 months apart)	Actual Completion Date	Entity Comment on Milestone Completion	Extension Request Pending
	<p>processes including supporting documentation for equipment ratings, periodic field verification sampling, periodic equipment surveys, and sampling of end-to-end equipment and facility rating process. Plan should address actions by SMEs, FAC-008 Standard Owners, and PHI NERC Compliance. Plan should leverage tracking tools action item(s) to assign action items to the FAC-008 Standard Owner/SMEs, PHI compliance, or other key stakeholders.</p>				
Task 7	<p>Prepare and submit disclosure of additional discrepancies for completed Facility reviews to ReliabilityFirst and identify overall progress of Facility reviews. Identify corrected discrepancies and provide evidence of correction.</p>	06/30/2020			No
Task 10	<p>DPL Substation Engineering and Drafting and Meter Services to establish a cross departmental team to determine process for involving</p>	08/28/2020			No

Milestone Activity	Description	*Proposed Completion Date (Shall not be greater than 3 months apart)	Actual Completion Date	Entity Comment on Milestone Completion	Extension Request Pending
	Meter Services department during substation design. Meter Services Dept also to be added to Substation One-Line Distribution List.				
Task 11	ACE Substation Engineering and Drafting and Meter Services to establish a cross departmental team to determine process for involving Meter Services department during substation design. Meter Services Dept also to be added to Substation One-Line Distribution List.	08/28/2020			No
Task 8	Substation Engineering and Drafting and Meter Services to establish a cross departmental team to determine process for involving Meter Services department during substation design. Meter Services Dept also to be added to Substation One-Line Distribution List.	08/28/2020			No
Task 9	PEPCO Substation Engineering and Drafting and Meter Services to establish a cross departmental team to determine process for involving Meter Services department during substation design. Meter Services Dept	08/28/2020			No

Milestone Activity	Description	*Proposed Completion Date (Shall not be greater than 3 months apart)	Actual Completion Date	Entity Comment on Milestone Completion	Extension Request Pending
	also to be added to Substation One-Line Distribution List.				
Task 12	Prepare and submit disclosure of additional discrepancies for completed Facility reviews to ReliabilityFirst and identify overall progress of Facility reviews. Identify corrected discrepancies and provide evidence of correction.	09/30/2020			No
Task 13	To establish a high-level Management Model process document to describe the relationship between Exelon Utility performing teams and EU Transmission teams within the transmission equipment and Facility rating process. This document should specifically refer to the transmission equipment and Facility rating process used at each of the Exelon Utilities including ACE, DPL, and Pepco.	10/30/2020			No
Task 14a	Develop an EU Transmission Reliability Planning management model procedure that describes the steps	10/30/2020			No

Milestone Activity	Description	*Proposed Completion Date (Shall not be greater than 3 months apart)	Actual Completion Date	Entity Comment on Milestone Completion	Extension Request Pending
	performed by Transmission Reliability Planning for PHI's transmission equipment and facility rating process. The procedure should include details on Exelon Utilities and EU Transmission roles & responsibilities for BES ratings updates and communications between Rating Engineer, Transmission Standards and Equipment Engineering and Transmission System Operations.				
Task 14b	Develop an EU EMS Ratings Update management model procedure that describes the steps performed by EU TSO EMS Support Group to maintain new and existing equipment and Facility ratings related to PHI's new EMS.	10/30/2020			No
Task 15	T&S Engineering will revise Pepco Holdings Administrative Procedure, CM-PH-0003, Transmission and Substation Equipment Ratings to refine roles and	10/30/2020			No

Milestone Activity	Description	*Proposed Completion Date (Shall not be greater than 3 months apart)	Actual Completion Date	Entity Comment on Milestone Completion	Extension Request Pending
	responsibilities including clearly designating Governance, Oversight, Support and Perform stakeholder requirements. This includes development of a GOSP model that lists work groups in the header and tasks in rows for each phase/step of a project. The GOSP model will indicate the role of each work group for each task at the intersection of the task row and the work group column. Procedure CM-PH-0003 will also identify roles and responsibilities during limiting conditions that may arise after a facility is placed in service. Updates will include: <ul style="list-style-type: none"> • Clear identification of performing groups and the roles and responsibilities for coordinating the equipment rating process with applicable stakeholders • Data management control requirements such as required peer checks at necessary data exchange/recordation points in the 				

Milestone Activity	Description	*Proposed Completion Date (Shall not be greater than 3 months apart)	Actual Completion Date	Entity Comment on Milestone Completion	Extension Request Pending
	process. • Link the LRE Model and Project Management Procedures to CM-PH-0003, Transmission and Substation Equipment Ratings. • Include references to all documents reviewed and maintained under CA 7 to ensure methodology references all other equipment rating documents.				
Task 16	Create a consolidated index within Substation Engineering and Drafting, Aerial and Underground Engineering, and Relay and Protection of equipment ratings methodologies used for rating of equipment within PHI. The index should include annotations for which PHI entity uses the rating method. References to the index documents should be included as reference documents in revisions to CM-PH-0003.	10/30/2020			No
Task 17	Utilize the revised CM-PH-0003, Transmission and Substation	11/30/2020			No

Milestone Activity	Description	*Proposed Completion Date (Shall not be greater than 3 months apart)	Actual Completion Date	Entity Comment on Milestone Completion	Extension Request Pending
	Equipment Ratings Procedure and the GOSP Model to provide training to relevant stakeholders. This training should at a minimum cover PHI's FAC-008 Compliance Program, PHI's Facility Ratings Methodology, the PHI ratings process, and GOSP with the specific job responsibilities.				
Task 18	Update PHI Project Management checklist or other necessary PHI Project Management documents to: (1) ensure facility rating is communicated to System Operations prior to energization/in-service; and (2) verify System Ops has entered the correct facility ratings in PHI EMS and PJM EMS. Communicate same to project management performers.	11/30/2020			No
Task 19a	Develop Job Aids and conduct training with all performers within each of the respective stakeholder groups. Job Aids must detail specific steps necessary to perform each group's role	12/15/2020			No

Milestone Activity	Description	*Proposed Completion Date (Shall not be greater than 3 months apart)	Actual Completion Date	Entity Comment on Milestone Completion	Extension Request Pending
	within the transmission equipment and Facility rating process and instruction on use of any tools needed to perform work. Job Aids should include cross references to CM-PH-0003 and the EU Transmission Reliability Planning procedure.				
Task 19b	Ensure all members of EU TSO EMS Support Group complete OSI Maintenance Center training, which includes how to maintain Facility Ratings in the new EMS.	12/15/2020			No
Task 20	Develop / update Job Aid for how to calculate Code 1 ratings for the PHI transmission system. Distribute Job Aid to Engineers within Transmission Reliability Planning.	12/17/2020			No
Task 21	Develop / update Job Aid for when and how to implement and remove Code 1 ratings for equipment within the ACE/DPL and Pepco Energy Management Systems.	12/17/2020			No
Task 22	Verify all existing Code 1 facility ratings on the PHI system.	12/17/2020			No

Milestone Activity	Description	*Proposed Completion Date (Shall not be greater than 3 months apart)	Actual Completion Date	Entity Comment on Milestone Completion	Extension Request Pending
Task 23	<p>Form a cross-functional team to create a long-term action plan on use of Code 1 ratings for the PHI transmission system. This plan must address:</p> <ul style="list-style-type: none"> • Procedure updates for when and how to implement and remove Code 1 ratings for equipment within the ACE/DPL and Pepco Energy Management Systems based on the outcome of review of Code 1 ratings at PHI; • Training of any personnel involved in the transmission equipment and facility ratings process required to handle Code 1 ratings; • Training of transmission operators in the future EU transmission operation control centers on the use of Code 1 ratings within the ACE/DPL and Pepco operational areas; • Ensuring that the future EMS has the functionality to manage the execution of Code 1 ratings for relevant PHI transmission 	12/17/2020			No

Milestone Activity	Description	*Proposed Completion Date (Shall not be greater than 3 months apart)	Actual Completion Date	Entity Comment on Milestone Completion	Extension Request Pending
	system equipment; and • If Code 1 ratings will not be used in the future, an alternate strategy to be developed for retirement/phase out.				
Task 24	Prepare and submit disclosure of additional discrepancies for completed Facility reviews to ReliabilityFirst and identify overall progress of Facility reviews. Identify corrected discrepancies and provide evidence of correction.	12/21/2020			No
Task 25	Develop the implementation plan for use of LOAD facility rating tool in PHI. Implementation should include actions to review and update procedures, train Substation Engineering and Drafting, Transmission Engineering, Protection and Control Engineering, T&S Standards and Equipment Engineering Transmission Reliability Planning, System Operations, Project Management and Meter Services on changes resulting	02/01/2021			No

Milestone Activity	Description	*Proposed Completion Date (Shall not be greater than 3 months apart)	Actual Completion Date	Entity Comment on Milestone Completion	Extension Request Pending
	from tool implementation, and validation check for migration of data into LOAD. Consider as part of implementation inclusion of requirement to complete an assigned training program prior to obtaining access to LOAD.				
Task 26	Consolidate ACE, DPL and PEPCO Substation equipment ratings methodologies in one document. Align methodology where possible. Including application of historical methodology. <ul style="list-style-type: none"> • Any differences between regions should be included in the document with explanations. • Revision per NERC document guideline every 2 years. 	02/26/2021			No
Task 27	Develop and assign annual LMS based training to provide a detailed overview of PHI transmission equipment and facility rating processes including: <ul style="list-style-type: none"> • FAC-008 NERC standard requirements, • Scope of activities 	03/01/2021			No

Milestone Activity	Description	*Proposed Completion Date (Shall not be greater than 3 months apart)	Actual Completion Date	Entity Comment on Milestone Completion	Extension Request Pending
	<p>that are covered by PHI transmission equipment and facility rating processes including planned and emergency changes,</p> <ul style="list-style-type: none"> • CM-PH-0003 - Transmission and Substation Equipment Ratings and EU Transmission Reliability Planning Procedure, • Description of available Job Aids by team and description of equipment rating methodology indexes, and • Key roles and responsibilities of each responsible group in the transmission equipment and facility rating processes. <p>The training should be assigned to the following responsible groups: Substation Engineering and Drafting, Transmission Engineering, Protection and Control Engineering, T&S Standards and Equipment Engineering, Transmission Reliability Planning, System Operations, and Meter Services.</p>				
Task 28	Prepare and submit	03/31/2021			No

Milestone Activity	Description	*Proposed Completion Date (Shall not be greater than 3 months apart)	Actual Completion Date	Entity Comment on Milestone Completion	Extension Request Pending
	disclosure of additional discrepancies for completed Facility reviews to ReliabilityFirst and identify overall progress of Facility reviews. Identify corrected discrepancies and provide evidence of correction.				
Task 29	PHI and EU Transmission Reliability Planning will establish a plan for ACE, DPL, and Pepco to complete remediation for any discrepancies that require additional time and planning to complete.	03/31/2021			No

Additional Relevant Information

Beyond the mitigation steps noted above, Exelon is taking steps to continuously improve the overall effectiveness of the PHI Transmission Equipment and Facility Rating program as part of the overall project to centralize Transmission Planning work across the Exelon Utilities (EU). For example, as noted in the mitigating steps above, Exelon will be documenting plans to implement LOAD, a common application tool to document equipment and Facility Ratings that will be used by all Exelon Utilities. Exelon will also leverage the peer working group, comprised of representatives from all EU Transmission & Substation organizations, to compare equipment rating methodologies across each utility operating company and thereafter make recommendations to senior leadership for alignment. In addition, Exelon will implement automated technical capability in its new EMS to compare PHI EMS to PJM EMS values and PHI EMS values to those in the PHI Facility Rating system. Finally, a corrective action effectiveness review will be performed in late 2021, by the root cause analysis performance assessment lead and others, to assess the implementation of corrective actions designed to prevent recurrences associated with root cause(s).

Reliability Risk

Reliability Risk

While the Mitigation Plan is being implemented, the reliability of the bulk Power System may remain at higher Risk or be otherwise negatively impacted until the plan is successfully completed. To the extent they are known or anticipated : (i) Identify any such risks or impacts, and; (ii) discuss any actions planned or proposed to address these risks or impacts.

The PHI Utilities have not experienced any system related events due to any of the identified potential discrepancies. PHI prioritized review work, to the extent possible, to focus on the most critical Facilities early in reviews. In addition, PHI is correcting potential discrepancies as expeditiously as possible, taking into account the necessary reliability studies and planning, to ensure proper and reliable adjustments to any impacted Facility Ratings. As noted in the self-report, PHI and the EU staff are evaluating all potential discrepancies by performing studies accounting for any Facility Ratings changes against NERC, PJM and PHI planning criteria. PHI has not identified any current planning criteria violations for Facilities where a potential decrease in the overall Facility Rating was identified. The analysis is based on internal preliminary planning evaluations and may be updated.

Operational reviews have also been performed to assess the maximum historical load on Facilities identified for a Facility Ratings decrease. The review method is employed to determine if a Facility has been loaded above the MVA limits that should have been in place. One Pepco Facility was determined to have been loaded above its corrected normal rating for approximately 4 minutes but was not loaded above its emergency limit. Additional historic loading reviews will be conducted as ongoing facility rating updates are completed, to ensure any additional historic ratings violations are identified and evaluated for impact. PHI will continue to perform similar assessments for any additional Facilities that require a decrease in ratings against both planning criteria and historical operational loading levels.

To further mitigate any potential risk to the Bulk Power System while implementing the Mitigation Plan, PHI has included the short-term actions described above to reinforce roles and responsibilities and add data validation steps into the process. These measures will reduce the risk of additional errors while improvements to the program are implemented.

Prevention

Describe how successful completion of this plan will prevent or minimize the probability further violations of the same or similar reliability standards requirements will occur

The actions included in the mitigation plan overhaul the PHI Transmission Equipment and Facility Ratings program by implementing improved procedural controls (program and performer level); by adding comprehensive, ongoing training of personnel; and by improving detective/compliance oversight controls for the PHI Transmission Equipment and Facility Rating program. Documentation for the PHI Transmission Equipment and Facility Rating program will be in-place, starting with a high-level governance document for the interaction between PHI equipment rating performers and Transmission Reliability Planning performers and extending down through implementing procedures and performer level instruction. Documents will contain detailed roles and responsibilities and baseline steps for performance to guide and instruct performers (existing or new) as well as decrease the potential impacts of operational silos among performance groups. Performers will have baseline training on all procedural improvements and be given clear expectations for execution. The PHI Transmission Equipment and Facility Rating program will also benefit from ongoing, regular training designed to ground performers and establish a high and consistent level of performance by personnel. The mitigation plan addresses: (1) the process gaps and lack of clarity noted in the root causes;(2) the human performance deficiencies that resulted from lack of peer checks and lack of clarity on roles and responsibilities; and (3) includes controls through improved compliance monitoring to measure continued success in the implementation of the PHI Transmission Equipment and Facility Rating program over time. Overall, the plan will improve the governance, oversight, support, and performance aspects of the PHI Transmission Equipment and Facility Rating program.

ReliabilityFirst

Confidential Non-Public Information

June 05, 2020

Describe any action that may be taken or planned beyond that listed in the mitigation plan, to prevent or minimize the probability of incurring further violations of the same or similar standards requirements

None.

Authorization

An authorized individual must sign and date the signature page. By doing so, this individual, on behalf of your organization:

- * Submits the Mitigation Plan, as presented, to the regional entity for acceptance and approval by NERC, and
- * if applicable, certifies that the Mitigation Plan, as presented, was completed as specified.

Acknowledges:

1. I am qualified to sign this mitigation plan on behalf of my organization.
2. I have read and understand the obligations to comply with the mitigation plan requirements and ERO remedial action directives as well as ERO documents, including but not limited to, the NERC rules of procedure and the application NERC CMEP.
3. I have read and am familiar with the contents of the foregoing Mitigation Plan.

Atlantic City Electric Company Agrees to be bound by, and comply with, this Mitigation Plan, including the timetable completion date, as accepted by the Regional Entity, NERC, and if required, the applicable governmental authority.

Authorized Individual Signature: _____

(Electronic signature was received by the Regional Office via CDMS. For Electronic Signature Policy see CMEP.)

Authorized Individual

Name: Mark Yerger

Title: Manager, Utility Compliance

Authorized On: June 04, 2020

Mitigation Plan

Mitigation Plan Summary

Registered Entity: Delmarva Power & Light Company

Mitigation Plan Code:

Mitigation Plan Version: 1

NERC Violation ID	Requirement	Violation Validated On
RFC2020023213	FAC-008-3 R6.	

Mitigation Plan Submitted On: June 04, 2020

Mitigation Plan Accepted On:

Mitigation Plan Proposed Completion Date: March 31, 2021

Actual Completion Date of Mitigation Plan:

Mitigation Plan Certified Complete by DP&L On:

Mitigation Plan Completion Verified by RF On:

Mitigation Plan Completed? (Yes/No): No

Compliance Notices

Section 6.2 of the NERC CMEP sets forth the information that must be included in a Mitigation Plan. The Mitigation Plan must include:

- (1) The Registered Entity's point of contact for the Mitigation Plan, who shall be a person (i) responsible for filing the Mitigation Plan, (ii) technically knowledgeable regarding the Mitigation Plan, and (iii) authorized and competent to respond to questions regarding the status of the Mitigation Plan. This person may be the Registered Entity's point of contact described in Section B.
 - (2) The Alleged or Confirmed Violation(s) of Reliability Standard(s) the Mitigation Plan will correct.
 - (3) The cause of the Alleged or Confirmed Violation(s).
 - (4) The Registered Entity's action plan to correct the Alleged or Confirmed Violation(s).
 - (5) The Registered Entity's action plan to prevent recurrence of the Alleged or Confirmed violation(s).
 - (6) The anticipated impact of the Mitigation Plan on the bulk power system reliability and an action plan to mitigate any increased risk to the reliability of the bulk power-system while the Mitigation Plan is being implemented.
 - (7) A timetable for completion of the Mitigation Plan including the completion date by which the Mitigation Plan will be fully implemented and the Alleged or Confirmed Violation(s) corrected.
 - (8) Implementation milestones no more than three (3) months apart for Mitigation Plans with expected completion dates more than three (3) months from the date of submission. Additional violations could be determined or recommended to the applicable governmental authorities for not completing work associated with accepted milestones.
 - (9) Any other information deemed necessary or appropriate.
 - (10) The Mitigation Plan shall be signed by an officer, employee, attorney or other authorized representative of the Registered Entity, which if applicable, shall be the person that signed the Self Certification or Self Reporting submittals.
 - (11) This submittal form may be used to provide a required Mitigation Plan for review and approval by regional entity(ies) and NERC.
- The Mitigation Plan shall be submitted to the regional entity(ies) and NERC as confidential information in accordance with Section 1500 of the NERC Rules of Procedure.
 - This Mitigation Plan form may be used to address one or more related alleged or confirmed violations of one Reliability Standard. A separate mitigation plan is required to address alleged or confirmed violations with respect to each additional Reliability Standard, as applicable.
 - If the Mitigation Plan is accepted by regional entity(ies) and approved by NERC, a copy of this Mitigation Plan will be provided to the Federal Energy Regulatory Commission or filed with the applicable governmental authorities for approval in Canada.
 - Regional Entity(ies) or NERC may reject Mitigation Plans that they determine to be incomplete or inadequate.
 - Remedial action directives also may be issued as necessary to ensure reliability of the bulk power system.
 - The user has read and accepts the conditions set forth in these Compliance Notices.

Entity Information

Identify your organization:

Entity Name: Delmarva Power & Light Company

NERC Compliance Registry ID: NCR00752

Address: 500 N. Wakefield Dr
Newark DE 19702

Identify the individual in your organization who will serve as the Contact to the Regional Entity regarding this Mitigation Plan. This person shall be technically knowledgeable regarding this Mitigation Plan and authorized to respond to Regional Entity regarding this Mitigation Plan:

Name: Mark Yerger

Title: Manager, Utility Compliance

Email: mark.yerger@pepcoholdings.com

Phone: 302-454-4121

Violation(s)

This Mitigation Plan is associated with the following violation(s) of the reliability standard listed below:

Violation ID	Date of Violation	Requirement
Requirement Description		
RFC2020023213	01/01/2013	FAC-008-3 R6.
Each Transmission Owner and Generator Owner shall have Facility Ratings for its solely and jointly owned Facilities that are consistent with the associated Facility Ratings methodology or documentation for determining its Facility Ratings.		

Brief summary including the cause of the violation(s) and mechanism in which it was identified:

On April 15, 2020, Atlantic City Electric Company ("ACE"), Delmarva Power & Light Company ("DPL"), and Potomac Electric Power Company ("Pepco") (together, the "PHI Utilities" or "PHI") submitted self-reports to ReliabilityFirst disclosing potential discrepancies related to FAC-009/FAC-008 compliance at multiple PHI Facilities. The potential discrepancies were identified during extent of condition reviews, following the discovery of the issue reported in Exelon Self-Log #92. ACE, DPL, and Pepco have been assigned Open Action Enforcement numbers RFC2020023212, RFC2020023213, and RFC2020023214 respectively by ReliabilityFirst ("RF") for processing the extent of condition findings. The self-report, as submitted, included: (1) a summary of the extent of condition work stemming from Self-Log #92; (2) detail as to the quantity and types of rating discrepancies identified; and (3) a description of next steps that PHI is taking to complete review work and disclose any additional discrepancies that may be discovered during extent of condition work.

In this Mitigation Plan, the PHI Utilities describe the results of the root cause analysis performed and completed in April 2020. The root cause analysis was led by a senior performance assessment specialist at PHI and utilized the TapRoot systematic root cause analysis process. The analysis team included team members and supporting staff, representing equipment and facility rating engineers at each of the PHI Utilities; transmission planning staff in the Exelon Utilities; equipment and facility rating engineers from other Exelon utilities; NERC compliance specialists; and legal staff. Results of the analysis and the resulting corrective actions were reviewed and approved by senior leadership within PHI, Exelon Utilities, and the centralized NERC Compliance & Security organization, who has oversight of the NERC Compliance Program at Exelon.

The analysis determined that ACE, DPL, and Pepco's equipment and Facility Rating program documented practices as well as the program process steps were not implemented in a consistent and systematic manner that ensured accurate equipment and Facility Ratings throughout the lifecycle of the process. PHI's overall rating process relied on performance from multiple teams, at various steps, each with specific tasks. These steps did not include effective internal controls to provide accuracy in information recording at each stage, such as sufficient independent reviews of data inputs to internal databases (e.g., SERS and Z-Table), PHI EMS systems, and eDART. As a result, there was a higher potential for human error in the process.

The program documentation also did not have clear ownership or accountability for the entire transmission equipment and Facility Rating program, with each team managing its own portion of the process. This lack of clear structure created communication gaps between performance teams that increased the risk of error. Within the program documentation itself, the root cause analysis team determined the roles and responsibilities were not articulated well nor detailed enough to address clear ownership and accountability. The performing teams did not have comprehensive training on the Facility Rating process and effective documentation of the underlying steps required to support their role in the overall process. Teams relied on person-to-person knowledge transfer for training and understanding, which created risk of errors in equipment and Facility Ratings.

More specifically, in several cases, changes in-the-field were not effectively communicated and recorded among the various groups involved in the Facility Rating process, and ultimately to the Planning Engineer responsible for maintaining the Facility Ratings Database (i.e. Z-table). In some cases, relay thermal and transient load limits were not accurately recorded in internal databases.

The mitigation actions and strategy for correcting the PHI equipment and Facility Rating program are described in detail in the sections that follow.

ACE, DPL, and Pepco have completed walkdown reviews of all Facilities, utilizing both internal staff and third-party reviewers. Subject matter experts from ACE, DPL, and Pepco as well as and Exelon are in the process of reviewing and comparing field documentation against internal records, to confirm any potential discrepancies for disclosure to RF. Exelon's centralized Transmission Reliability Planning team within Exelon Utilities is tracking and compiling the results, with a targeted first submission by the end of June 2020. As noted in the actions below, Exelon and the PHI Utilities will provide the details of potential discrepancies, including any additional causes identified, any corrective actions taken to date for potential discrepancies, and discussion of the relative risk of each potential discrepancy.

Relevant information regarding the identification of the violation(s):

In April 2019, PHI initiated an evaluation per Exelon's NERC internal investigation process of a potential FAC-008, Requirement R8 issue at ACE. As reported in Exelon Self-Log #92, ACE discovered that it had temporarily placed a transmission line back into service without communicating the applicable Facility Rating to PJM Interconnection ("PJM"), via a PJM TERM ticket. The issue was first disclosed to RF through conversation with RF Legal in July 2019. In follow-up discussions with RF in December 2019, Exelon disclosed that PHI had identified additional FAC-008 discrepancies through ongoing evaluations of Facility Ratings under mitigating activities performed for Self-Log #92. As a result, PHI was performing an extended review, prior to reporting these additional issues. Self-Log #92 included three tasks to complete extent of condition reviews by May 31, 2020 for the PHI Utilities, which have been merged into this Mitigation Plan. During PHI's recent RF audit, which included FAC-008, PHI provided the audit team with the potential discrepancies, from its internal list, related to the sample of Facilities requested. As noted above, Exelon is finalizing the internal list of potential discrepancies to provide to RF, which will include all PHI Facilities, along with those included in the audit sample set.

Plan Details

Identify and describe the action plan, including specific tasks and actions that your organization is proposing to undertake, or which it undertook if this Mitigation Plan has been completed, to correct the violation(s) identified above in Section C.1 of this form:

ACE, DPL, and Pepco as well as Exelon Transmission Reliability Planning have established several corrective actions designed to systematically improve the equipment and Facility Rating program at the PHI Utilities. Actions include both short-term and long-term improvements to the program. The actions also include milestones to document the completion of the third-party reviews and identify potential discrepancies, along with any associated corrections, to RF at regular intervals as the work progresses.

Actions have been included to improve procedural, technical, and detective controls as well as provide training to performers. Short-term actions include reinforcing existing roles and responsibilities through the issuance of a Technical Bulletin to each program stakeholder group and establishing data validation steps, such as peer checks overlaid onto the existing process steps which act to improve data accuracy.

Long-term actions include redesigning program level documentation and training on the revised and newly created documents. Exelon has recently centralized its Transmission Planning teams and is in the process of creating new documentation, which will coordinate with the revised PHI Facility Ratings methodology, to create a holistic set of governing and implementing procedures for the PHI transmission equipment and Facility Rating program. In addition, performer level Job Aids will be created and implemented to detail execution and data validation steps necessary to perform each group's role within the Transmission Equipment and Facility Rating program. The Job Aids will include instruction on use of any tools needed to perform work. Comprehensive training will also be developed and assigned on an annual basis, to maintain the knowledge base and competency within performance teams over time, related to the PHI transmission equipment and Facility Rating program.

In addition to these improvements, PHI's NERC Compliance support team will design a comprehensive compliance monitoring plan to ensure that the FAC-008 program improvements resolve the existing issues and guard against errors in the future. The plan will include oversight roles and tasks for subject matter experts and compliance staff in the process. The plan will address periodic reviews of PHI's methodology and associated FAC-008 processes, periodic field verification sampling, periodic equipment surveys, and sampling of end-to-end equipment and Facility Ratings.

Provide the timetable for completion of the Mitigation Plan, including the completion date by which the Mitigation Plan will be fully implemented and the violations associated with this Mitigation Plan are corrected:

Proposed Completion date of Mitigation Plan: March 31, 2021

Milestone Activities, with completion dates, that your organization is proposing for this Mitigation Plan:

Milestone Activity	Description	*Proposed Completion Date (Shall not be greater than 3 months apart)	Actual Completion Date	Entity Comment on Milestone Completion	Extension Request Pending
Task 1	Implement controls to improve data accuracy through a multi-peer check process to parallel the existing process. Various peer checks will be used to	05/15/2020			No

Milestone Activity	Description	*Proposed Completion Date (Shall not be greater than 3 months apart)	Actual Completion Date	Entity Comment on Milestone Completion	Extension Request Pending
	<p>validate all equipment or Facility ratings changes in each group responsible for maintenance of accurate equipment or Facility Ratings. Peer check steps should include documentation of the peer check and the performer. The purpose is to improve controls until PHI's revised process for Facility Ratings is implemented. This interim process will be retired upon the effective date of the revised Facility Ratings process documentation, which will include updates to internal controls.</p>				
Task 2	<p>Communicate interim peer check process/job aid to validate all equipment or Facility ratings changes to each group responsible for peer checks and obtain key manager acknowledgment of implementation of peer check process.</p>	05/15/2020			No
Task 3	<p>PHI procedure "PHI-FAC-008-FINAL (Revision 9.0) - Establish and Communicate Facility Ratings" submitted to</p>	06/01/2020			No

Milestone Activity	Description	*Proposed Completion Date (Shall not be greater than 3 months apart)	Actual Completion Date	Entity Comment on Milestone Completion	Extension Request Pending
	the Exelon Management Model with notification to Substation Engineering and Drafting, Transmission Engineering, Protection and Control Engineering, T&S Standards and Equipment Engineering, Transmission Reliability Planning, System Operations, and Meter Services leads.				
Task 4	Establish a standard repository for relay load limits across PHI, establish notification updates to stakeholders, and migrate all relay load limit data to that standard repository. Identify and establish subscriptions for appropriate recipients of update notifications.	06/05/2020			No
Task 5	Draft and communicate Technical Bulletin to reinforce expectations to stakeholders who are responsible for the Transmission equipment and facility ratings process. The bulletin will review the responsibilities of each stakeholder	06/15/2020			No

Milestone Activity	Description	*Proposed Completion Date (Shall not be greater than 3 months apart)	Actual Completion Date	Entity Comment on Milestone Completion	Extension Request Pending
	group. The following stakeholder groups will be addressed: Area Maintenance Engineering Team (T&S), Business Planning & Support (T&S), Meter Services, Operations & Control Center, Project & Construction Management, Protection & Control Engineering (T&S), Standards & Equipment Engineering (T&S), Substation Construction, Maintenance, and Relay (T&S), Substation Engineering & Drafting, Transmission Engineering-Overhead & Underground (T&S), Transmission Reliability Planning.				
Task 6	Establish a compliance monitoring plan in conjunction with PHI FAC-008 Standard Owners to evaluate PHI facility rating program implementation accuracy and effectiveness of internal controls. Plan should address periodic review of methodology and associated FAC-008	06/30/2020			No

Milestone Activity	Description	*Proposed Completion Date (Shall not be greater than 3 months apart)	Actual Completion Date	Entity Comment on Milestone Completion	Extension Request Pending
	<p>processes including supporting documentation for equipment ratings, periodic field verification sampling, periodic equipment surveys, and sampling of end-to-end equipment and facility rating process. Plan should address actions by SMEs, FAC-008 Standard Owners, and PHI NERC Compliance. Plan should leverage tracking tools action item(s) to assign action items to the FAC-008 Standard Owner/SMEs, PHI compliance, or other key stakeholders.</p>				
Task 7	<p>Prepare and submit disclosure of additional discrepancies for completed Facility reviews to ReliabilityFirst and identify overall progress of Facility reviews. Identify corrected discrepancies and provide evidence of correction.</p>	06/30/2020			No
Task 10	<p>DPL Substation Engineering and Drafting and Meter Services to establish a cross departmental team to determine process for involving</p>	08/28/2020			No

Milestone Activity	Description	*Proposed Completion Date (Shall not be greater than 3 months apart)	Actual Completion Date	Entity Comment on Milestone Completion	Extension Request Pending
	Meter Services department during substation design. Meter Services Dept also to be added to Substation One-Line Distribution List.				
Task 11	ACE Substation Engineering and Drafting and Meter Services to establish a cross departmental team to determine process for involving Meter Services department during substation design. Meter Services Dept also to be added to Substation One-Line Distribution List.	08/28/2020			No
Task 8	Substation Engineering and Drafting and Meter Services to establish a cross departmental team to determine process for involving Meter Services department during substation design. Meter Services Dept also to be added to Substation One-Line Distribution List.	08/28/2020			No
Task 9	PEPCO Substation Engineering and Drafting and Meter Services to establish a cross departmental team to determine process for involving Meter Services department during substation design. Meter Services Dept	08/28/2020			No

Milestone Activity	Description	*Proposed Completion Date (Shall not be greater than 3 months apart)	Actual Completion Date	Entity Comment on Milestone Completion	Extension Request Pending
	also to be added to Substation One-Line Distribution List.				
Task 12	Prepare and submit disclosure of additional discrepancies for completed Facility reviews to ReliabilityFirst and identify overall progress of Facility reviews. Identify corrected discrepancies and provide evidence of correction.	09/30/2020			No
Task 13	To establish a high-level Management Model process document to describe the relationship between Exelon Utility performing teams and EU Transmission teams within the transmission equipment and Facility rating process. This document should specifically refer to the transmission equipment and Facility rating process used at each of the Exelon Utilities including ACE, DPL, and Pepco.	10/30/2020			No
Task 14a	Develop an EU Transmission Reliability Planning management model procedure that describes the steps	10/30/2020			No

Milestone Activity	Description	*Proposed Completion Date (Shall not be greater than 3 months apart)	Actual Completion Date	Entity Comment on Milestone Completion	Extension Request Pending
	performed by Transmission Reliability Planning for PHI's transmission equipment and facility rating process. The procedure should include details on Exelon Utilities and EU Transmission roles & responsibilities for BES ratings updates and communications between Rating Engineer, Transmission Standards and Equipment Engineering and Transmission System Operations.				
Task 14b	Develop an EU EMS Ratings Update management model procedure that describes the steps performed by EU TSO EMS Support Group to maintain new and existing equipment and Facility ratings related to PHI's new EMS.	10/30/2020			No
Task 15	T&S Engineering will revise Pepco Holdings Administrative Procedure, CM-PH-0003, Transmission and Substation Equipment Ratings to refine roles and	10/30/2020			No

Milestone Activity	Description	*Proposed Completion Date (Shall not be greater than 3 months apart)	Actual Completion Date	Entity Comment on Milestone Completion	Extension Request Pending
	responsibilities including clearly designating Governance, Oversight, Support and Perform stakeholder requirements. This includes development of a GOSP model that lists work groups in the header and tasks in rows for each phase/step of a project. The GOSP model will indicate the role of each work group for each task at the intersection of the task row and the work group column. Procedure CM-PH-0003 will also identify roles and responsibilities during limiting conditions that may arise after a facility is placed in service. Updates will include: <ul style="list-style-type: none"> • Clear identification of performing groups and the roles and responsibilities for coordinating the equipment rating process with applicable stakeholders • Data management control requirements such as required peer checks at necessary data exchange/recordation points in the 				

Milestone Activity	Description	*Proposed Completion Date (Shall not be greater than 3 months apart)	Actual Completion Date	Entity Comment on Milestone Completion	Extension Request Pending
	process. • Link the LRE Model and Project Management Procedures to CM-PH-0003, Transmission and Substation Equipment Ratings. • Include references to all documents reviewed and maintained under CA 7 to ensure methodology references all other equipment rating documents.				
Task 16	Create a consolidated index within Substation Engineering and Drafting, Aerial and Underground Engineering, and Relay and Protection of equipment ratings methodologies used for rating of equipment within PHI. The index should include annotations for which PHI entity uses the rating method. References to the index documents should be included as reference documents in revisions to CM-PH-0003.	10/30/2020			No
Task 17	Utilize the revised CM-PH-0003, Transmission and Substation	11/30/2020			No

Milestone Activity	Description	*Proposed Completion Date (Shall not be greater than 3 months apart)	Actual Completion Date	Entity Comment on Milestone Completion	Extension Request Pending
	Equipment Ratings Procedure and the GOSP Model to provide training to relevant stakeholders. This training should at a minimum cover PHI's FAC-008 Compliance Program, PHI's Facility Ratings Methodology, the PHI ratings process, and GOSP with the specific job responsibilities.				
Task 18	Update PHI Project Management checklist or other necessary PHI Project Management documents to: (1) ensure facility rating is communicated to System Operations prior to energization/in-service; and (2) verify System Ops has entered the correct facility ratings in PHI EMS and PJM EMS. Communicate same to project management performers.	11/30/2020			No
Task 19a	Develop Job Aids and conduct training with all performers within each of the respective stakeholder groups. Job Aids must detail specific steps necessary to perform each group's role	12/15/2020			No

Milestone Activity	Description	*Proposed Completion Date (Shall not be greater than 3 months apart)	Actual Completion Date	Entity Comment on Milestone Completion	Extension Request Pending
	within the transmission equipment and Facility rating process and instruction on use of any tools needed to perform work. Job Aids should include cross references to CM-PH-0003 and the EU Transmission Reliability Planning procedure.				
Task 19b	Ensure all members of EU TSO EMS Support Group complete OSI Maintenance Center training, which includes how to maintain Facility Ratings in the new EMS.	12/15/2020			No
Task 20	Develop / update Job Aid for how to calculate Code 1 ratings for the PHI transmission system. Distribute Job Aid to Engineers within Transmission Reliability Planning.	12/17/2020			No
Task 21	Develop / update Job Aid for when and how to implement and remove Code 1 ratings for equipment within the ACE/DPL and Pepco Energy Management Systems.	12/17/2020			No
Task 22	Verify all existing Code 1 facility ratings on the PHI system.	12/17/2020			No

Milestone Activity	Description	*Proposed Completion Date (Shall not be greater than 3 months apart)	Actual Completion Date	Entity Comment on Milestone Completion	Extension Request Pending
Task 23	Form a cross-functional team to create a long-term action plan on use of Code 1 ratings for the PHI transmission system. This plan must address: <ul style="list-style-type: none"> • Procedure updates for when and how to implement and remove Code 1 ratings for equipment within the ACE/DPL and Pepco Energy Management Systems based on the outcome of review of Code 1 ratings at PHI; • Training of any personnel involved in the transmission equipment and facility ratings process required to handle Code 1 ratings; • Training of transmission operators in the future EU transmission operation control centers on the use of Code 1 ratings within the ACE/DPL and Pepco operational areas; • Ensuring that the future EMS has the functionality to manage the execution of Code 1 ratings for relevant PHI transmission 	12/17/2020			No

Milestone Activity	Description	*Proposed Completion Date (Shall not be greater than 3 months apart)	Actual Completion Date	Entity Comment on Milestone Completion	Extension Request Pending
	system equipment; and • If Code 1 ratings will not be used in the future, an alternate strategy to be developed for retirement/phase out.				
Task 24	Prepare and submit disclosure of additional discrepancies for completed Facility reviews to ReliabilityFirst and identify overall progress of Facility reviews. Identify corrected discrepancies and provide evidence of correction.	12/21/2020			No
Task 25	Develop the implementation plan for use of LOAD facility rating tool in PHI. Implementation should include actions to review and update procedures, train Substation Engineering and Drafting, Transmission Engineering, Protection and Control Engineering, T&S Standards and Equipment Engineering Transmission Reliability Planning, System Operations, Project Management and Meter Services on changes resulting	02/01/2021			No

Milestone Activity	Description	*Proposed Completion Date (Shall not be greater than 3 months apart)	Actual Completion Date	Entity Comment on Milestone Completion	Extension Request Pending
	from tool implementation, and validation check for migration of data into LOAD. Consider as part of implementation inclusion of requirement to complete an assigned training program prior to obtaining access to LOAD.				
Task 26	Consolidate ACE, DPL and PEPCO Substation equipment ratings methodologies in one document. Align methodology where possible. Including application of historical methodology. <ul style="list-style-type: none"> • Any differences between regions should be included in the document with explanations. • Revision per NERC document guideline every 2 years. 	02/26/2021			No
Task 27	Develop and assign annual LMS based training to provide a detailed overview of PHI transmission equipment and facility rating processes including: <ul style="list-style-type: none"> • FAC-008 NERC standard requirements, • Scope of activities 	03/01/2021			No

Milestone Activity	Description	*Proposed Completion Date (Shall not be greater than 3 months apart)	Actual Completion Date	Entity Comment on Milestone Completion	Extension Request Pending
	<p>that are covered by PHI transmission equipment and facility rating processes including planned and emergency changes,</p> <ul style="list-style-type: none"> • CM-PH-0003 - Transmission and Substation Equipment Ratings and EU Transmission Reliability Planning Procedure, • Description of available Job Aids by team and description of equipment rating methodology indexes, and • Key roles and responsibilities of each responsible group in the transmission equipment and facility rating processes. <p>The training should be assigned to the following responsible groups: Substation Engineering and Drafting, Transmission Engineering, Protection and Control Engineering, T&S Standards and Equipment Engineering, Transmission Reliability Planning, System Operations, and Meter Services.</p>				
Task 28	Prepare and submit	03/31/2021			No

Milestone Activity	Description	*Proposed Completion Date (Shall not be greater than 3 months apart)	Actual Completion Date	Entity Comment on Milestone Completion	Extension Request Pending
	disclosure of additional discrepancies for completed Facility reviews to ReliabilityFirst and identify overall progress of Facility reviews. Identify corrected discrepancies and provide evidence of correction.				
Task 29	PHI and EU Transmission Reliability Planning will establish a plan for ACE, DPL, and Pepco to complete remediation for any discrepancies that require additional time and planning to complete.	03/31/2021			No

Additional Relevant Information

Beyond the mitigation steps noted above, Exelon is taking steps to continuously improve the overall effectiveness of the PHI Transmission Equipment and Facility Rating program as part of the overall project to centralize Transmission Planning work across the Exelon Utilities (EU). For example, as noted in the mitigating steps above, Exelon will be documenting plans to implement LOAD, a common application tool to document equipment and Facility Ratings that will be used by all Exelon Utilities. Exelon will also leverage the peer working group, comprised of representatives from all EU Transmission & Substation organizations, to compare equipment rating methodologies across each utility operating company and thereafter make recommendations to senior leadership for alignment. In addition, Exelon will implement automated technical capability in its new EMS to compare PHI EMS to PJM EMS values and PHI EMS values to those in the PHI Facility Rating system. Finally, a corrective action effectiveness review will be performed in late 2021, by the root cause analysis performance assessment lead and others, to assess the implementation of corrective actions designed to prevent recurrences associated with root cause(s).

Reliability Risk

Reliability Risk

While the Mitigation Plan is being implemented, the reliability of the bulk Power System may remain at higher Risk or be otherwise negatively impacted until the plan is successfully completed. To the extent they are known or anticipated : (i) Identify any such risks or impacts, and; (ii) discuss any actions planned or proposed to address these risks or impacts.

The PHI Utilities have not experienced any system related events due to any of the identified potential discrepancies. PHI prioritized review work, to the extent possible, to focus on the most critical Facilities early in reviews. In addition, PHI is correcting potential discrepancies as expeditiously as possible, taking into account the necessary reliability studies and planning, to ensure proper and reliable adjustments to any impacted Facility Ratings. As noted in the self-report, PHI and the EU staff are evaluating all potential discrepancies by performing studies accounting for any Facility Ratings changes against NERC, PJM and PHI planning criteria. PHI has not identified any current planning criteria violations for Facilities where a potential decrease in the overall Facility Rating was identified. The analysis is based on internal preliminary planning evaluations and may be updated.

Operational reviews have also been performed to assess the maximum historical load on Facilities identified for a Facility Ratings decrease. The review method is employed to determine if a Facility has been loaded above the MVA limits that should have been in place. One Pepco Facility was determined to have been loaded above its corrected normal rating for approximately 4 minutes but was not loaded above its emergency limit. Additional historic loading reviews will be conducted as ongoing facility rating updates are completed, to ensure any additional historic ratings violations are identified and evaluated for impact. PHI will continue to perform similar assessments for any additional Facilities that require a decrease in ratings against both planning criteria and historical operational loading levels.

To further mitigate any potential risk to the Bulk Power System while implementing the Mitigation Plan, PHI has included the short-term actions described above to reinforce roles and responsibilities and add data validation steps into the process. These measures will reduce the risk of additional errors while improvements to the program are implemented.

Prevention

Describe how successful completion of this plan will prevent or minimize the probability further violations of the same or similar reliability standards requirements will occur

The actions included in the mitigation plan overhaul the PHI Transmission Equipment and Facility Ratings program by implementing improved procedural controls (program and performer level); by adding comprehensive, ongoing training of personnel; and by improving detective/compliance oversight controls for the PHI Transmission Equipment and Facility Rating program. Documentation for the PHI Transmission Equipment and Facility Rating program will be in-place, starting with a high-level governance document for the interaction between PHI equipment rating performers and Transmission Reliability Planning performers and extending down through implementing procedures and performer level instruction. Documents will contain detailed roles and responsibilities and baseline steps for performance to guide and instruct performers (existing or new) as well as decrease the potential impacts of operational silos among performance groups. Performers will have baseline training on all procedural improvements and be given clear expectations for execution. The PHI Transmission Equipment and Facility Rating program will also benefit from ongoing, regular training designed to ground performers and establish a high and consistent level of performance by personnel. The mitigation plan addresses: (1) the process gaps and lack of clarity noted in the root causes;(2) the human performance deficiencies that resulted from lack of peer checks and lack of clarity on roles and responsibilities; and (3) includes controls through improved compliance monitoring to measure continued success in the implementation of the PHI Transmission Equipment and Facility Rating program over time. Overall, the plan will improve the governance, oversight, support, and performance aspects of the PHI Transmission Equipment and Facility Rating program.

ReliabilityFirst

Confidential Non-Public Information

June 05, 2020

Describe any action that may be taken or planned beyond that listed in the mitigation plan, to prevent or minimize the probability of incurring further violations of the same or similar standards requirements

None.

Authorization

An authorized individual must sign and date the signature page. By doing so, this individual, on behalf of your organization:

- * Submits the Mitigation Plan, as presented, to the regional entity for acceptance and approval by NERC, and
- * if applicable, certifies that the Mitigation Plan, as presented, was completed as specified.

Acknowledges:

1. I am qualified to sign this mitigation plan on behalf of my organization.
2. I have read and understand the obligations to comply with the mitigation plan requirements and ERO remedial action directives as well as ERO documents, including but not limited to, the NERC rules of procedure and the application NERC CMEP.
3. I have read and am familiar with the contents of the foregoing Mitigation Plan.

Delmarva Power & Light Company Agrees to be bound by, and comply with, this Mitigation Plan, including the timetable completion date, as accepted by the Regional Entity, NERC, and if required, the applicable governmental authority.

Authorized Individual Signature: _____

(Electronic signature was received by the Regional Office via CDMS. For Electronic Signature Policy see CMEP.)

Authorized Individual

Name: Mark Yerger

Title: Manager, Utility Compliance

Authorized On: June 04, 2020

Mitigation Plan

Mitigation Plan Summary

Registered Entity: Potomac Electric Power Company

Mitigation Plan Code:

Mitigation Plan Version: 1

<u>NERC Violation ID</u>	<u>Requirement</u>	<u>Violation Validated On</u>
RFC2020023214	FAC-008-3 R6.	

Mitigation Plan Submitted On: June 04, 2020

Mitigation Plan Accepted On:

Mitigation Plan Proposed Completion Date: March 31, 2021

Actual Completion Date of Mitigation Plan:

Mitigation Plan Certified Complete by Pepco On:

Mitigation Plan Completion Verified by RF On:

Mitigation Plan Completed? (Yes/No): No

Compliance Notices

Section 6.2 of the NERC CMEP sets forth the information that must be included in a Mitigation Plan. The Mitigation Plan must include:

- (1) The Registered Entity's point of contact for the Mitigation Plan, who shall be a person (i) responsible for filing the Mitigation Plan, (ii) technically knowledgeable regarding the Mitigation Plan, and (iii) authorized and competent to respond to questions regarding the status of the Mitigation Plan. This person may be the Registered Entity's point of contact described in Section B.
 - (2) The Alleged or Confirmed Violation(s) of Reliability Standard(s) the Mitigation Plan will correct.
 - (3) The cause of the Alleged or Confirmed Violation(s).
 - (4) The Registered Entity's action plan to correct the Alleged or Confirmed Violation(s).
 - (5) The Registered Entity's action plan to prevent recurrence of the Alleged or Confirmed violation(s).
 - (6) The anticipated impact of the Mitigation Plan on the bulk power system reliability and an action plan to mitigate any increased risk to the reliability of the bulk power-system while the Mitigation Plan is being implemented.
 - (7) A timetable for completion of the Mitigation Plan including the completion date by which the Mitigation Plan will be fully implemented and the Alleged or Confirmed Violation(s) corrected.
 - (8) Implementation milestones no more than three (3) months apart for Mitigation Plans with expected completion dates more than three (3) months from the date of submission. Additional violations could be determined or recommended to the applicable governmental authorities for not completing work associated with accepted milestones.
 - (9) Any other information deemed necessary or appropriate.
 - (10) The Mitigation Plan shall be signed by an officer, employee, attorney or other authorized representative of the Registered Entity, which if applicable, shall be the person that signed the Self Certification or Self Reporting submittals.
 - (11) This submittal form may be used to provide a required Mitigation Plan for review and approval by regional entity(ies) and NERC.
- The Mitigation Plan shall be submitted to the regional entity(ies) and NERC as confidential information in accordance with Section 1500 of the NERC Rules of Procedure.
 - This Mitigation Plan form may be used to address one or more related alleged or confirmed violations of one Reliability Standard. A separate mitigation plan is required to address alleged or confirmed violations with respect to each additional Reliability Standard, as applicable.
 - If the Mitigation Plan is accepted by regional entity(ies) and approved by NERC, a copy of this Mitigation Plan will be provided to the Federal Energy Regulatory Commission or filed with the applicable governmental authorities for approval in Canada.
 - Regional Entity(ies) or NERC may reject Mitigation Plans that they determine to be incomplete or inadequate.
 - Remedial action directives also may be issued as necessary to ensure reliability of the bulk power system.
 - The user has read and accepts the conditions set forth in these Compliance Notices.

Entity Information

Identify your organization:

Entity Name: Potomac Electric Power Company

NERC Compliance Registry ID: NCR00881

Address: 701 Ninth St., N. W.
Washington DC 20006

Identify the individual in your organization who will serve as the Contact to the Regional Entity regarding this Mitigation Plan. This person shall be technically knowledgeable regarding this Mitigation Plan and authorized to respond to Regional Entity regarding this Mitigation Plan:

Name: Mark Yerger

Title: Manager, Utility Compliance

Email: mark.yerger@pepcoholdings.com

Phone: 302-454-4121

Violation(s)

This Mitigation Plan is associated with the following violation(s) of the reliability standard listed below:

Violation ID	Date of Violation	Requirement
Requirement Description		
RFC2020023214	01/01/2013	FAC-008-3 R6.
Each Transmission Owner and Generator Owner shall have Facility Ratings for its solely and jointly owned Facilities that are consistent with the associated Facility Ratings methodology or documentation for determining its Facility Ratings.		

Brief summary including the cause of the violation(s) and mechanism in which it was identified:

On April 15, 2020, Atlantic City Electric Company ("ACE"), Delmarva Power & Light Company ("DPL"), and Potomac Electric Power Company ("Pepco") (together, the "PHI Utilities" or "PHI") submitted self-reports to ReliabilityFirst disclosing potential discrepancies related to FAC-009/FAC-008 compliance at multiple PHI Facilities. The potential discrepancies were identified during extent of condition reviews, following the discovery of the issue reported in Exelon Self-Log #92. ACE, DPL, and Pepco have been assigned Open Action Enforcement numbers RFC2020023212, RFC2020023213, and RFC2020023214 respectively by ReliabilityFirst ("RF") for processing the extent of condition findings. The self-report, as submitted, included: (1) a summary of the extent of condition work stemming from Self-Log #92; (2) detail as to the quantity and types of rating discrepancies identified; and (3) a description of next steps that PHI is taking to complete review work and disclose any additional discrepancies that may be discovered during extent of condition work.

In this Mitigation Plan, the PHI Utilities describe the results of the root cause analysis performed and completed in April 2020. The root cause analysis was led by a senior performance assessment specialist at PHI and utilized the TapRoot systematic root cause analysis process. The analysis team included team members and supporting staff, representing equipment and facility rating engineers at each of the PHI Utilities; transmission planning staff in the Exelon Utilities; equipment and facility rating engineers from other Exelon utilities; NERC compliance specialists; and legal staff. Results of the analysis and the resulting corrective actions were reviewed and approved by senior leadership within PHI, Exelon Utilities, and the centralized NERC Compliance & Security organization, who has oversight of the NERC Compliance Program at Exelon.

The analysis determined that ACE, DPL, and Pepco's equipment and Facility Rating program documented practices as well as the program process steps were not implemented in a consistent and systematic manner that ensured accurate equipment and Facility Ratings throughout the lifecycle of the process. PHI's overall rating process relied on performance from multiple teams, at various steps, each with specific tasks. These steps did not include effective internal controls to provide accuracy in information recording at each stage, such as sufficient independent reviews of data inputs to internal databases (e.g., SERS and Z-Table), PHI EMS systems, and eDART. As a result, there was a higher potential for human error in the process.

The program documentation also did not have clear ownership or accountability for the entire transmission equipment and Facility Rating program, with each team managing its own portion of the process. This lack of clear structure created communication gaps between performance teams that increased the risk of error. Within the program documentation itself, the root cause analysis team determined the roles and responsibilities were not articulated well nor detailed enough to address clear ownership and accountability. The performing teams did not have comprehensive training on the Facility Rating process and effective documentation of the underlying steps required to support their role in the overall process. Teams relied on person-to-person knowledge transfer for training and understanding, which created risk of errors in equipment and Facility Ratings.

More specifically, in several cases, changes in-the-field were not effectively communicated and recorded among the various groups involved in the Facility Rating process, and ultimately to the Planning Engineer responsible for maintaining the Facility Ratings Database (i.e. Z-table). In some cases, relay thermal and transient load limits were not accurately recorded in internal databases.

The mitigation actions and strategy for correcting the PHI equipment and Facility Rating program are described in detail in the sections that follow.

ACE, DPL, and Pepco have completed walkdown reviews of all Facilities, utilizing both internal staff and third-party reviewers. Subject matter experts from ACE, DPL, and Pepco as well as and Exelon are in the process of reviewing and comparing field documentation against internal records, to confirm any potential discrepancies for disclosure to RF. Exelon's centralized Transmission Reliability Planning team within Exelon Utilities is tracking and compiling the results, with a targeted first submission by the end of June 2020. As noted in the actions below, Exelon and the PHI Utilities will provide the details of potential discrepancies, including any additional causes identified, any corrective actions taken to date for potential discrepancies, and discussion of the relative risk of each potential discrepancy.

Relevant information regarding the identification of the violation(s):

In April 2019, PHI initiated an evaluation per Exelon's NERC internal investigation process of a potential FAC-008, Requirement R8 issue at ACE. As reported in Exelon Self-Log #92, ACE discovered that it had temporarily placed a transmission line back into service without communicating the applicable Facility Rating to PJM Interconnection ("PJM"), via a PJM TERM ticket. The issue was first disclosed to RF through conversation with RF Legal in July 2019. In follow-up discussions with RF in December 2019, Exelon disclosed that PHI had identified additional FAC-008 discrepancies through ongoing evaluations of Facility Ratings under mitigating activities performed for Self-Log #92. As a result, PHI was performing an extended review, prior to reporting these additional issues. Self-Log #92 included three tasks to complete extent of condition reviews by May 31, 2020 for the PHI Utilities, which have been merged into this Mitigation Plan. During PHI's recent RF audit, which included FAC-008, PHI provided the audit team with the potential discrepancies, from its internal list, related to the sample of Facilities requested. As noted above, Exelon is finalizing the internal list of potential discrepancies to provide to RF, which will include all PHI Facilities, along with those included in the audit sample set.

Plan Details

Identify and describe the action plan, including specific tasks and actions that your organization is proposing to undertake, or which it undertook if this Mitigation Plan has been completed, to correct the violation(s) identified above in Section C.1 of this form:

ACE, DPL, and Pepco as well as Exelon Transmission Reliability Planning have established several corrective actions designed to systematically improve the equipment and Facility Rating program at the PHI Utilities. Actions include both short-term and long-term improvements to the program. The actions also include milestones to document the completion of the third-party reviews and identify potential discrepancies, along with any associated corrections, to RF at regular intervals as the work progresses.

Actions have been included to improve procedural, technical, and detective controls as well as provide training to performers. Short-term actions include reinforcing existing roles and responsibilities through the issuance of a Technical Bulletin to each program stakeholder group and establishing data validation steps, such as peer checks overlaid onto the existing process steps which act to improve data accuracy.

Long-term actions include redesigning program level documentation and training on the revised and newly created documents. Exelon has recently centralized its Transmission Planning teams and is in the process of creating new documentation, which will coordinate with the revised PHI Facility Ratings methodology, to create a holistic set of governing and implementing procedures for the PHI transmission equipment and Facility Rating program. In addition, performer level Job Aids will be created and implemented to detail execution and data validation steps necessary to perform each group's role within the Transmission Equipment and Facility Rating program. The Job Aids will include instruction on use of any tools needed to perform work. Comprehensive training will also be developed and assigned on an annual basis, to maintain the knowledge base and competency within performance teams over time, related to the PHI transmission equipment and Facility Rating program.

In addition to these improvements, PHI's NERC Compliance support team will design a comprehensive compliance monitoring plan to ensure that the FAC-008 program improvements resolve the existing issues and guard against errors in the future. The plan will include oversight roles and tasks for subject matter experts and compliance staff in the process. The plan will address periodic reviews of PHI's methodology and associated FAC-008 processes, periodic field verification sampling, periodic equipment surveys, and sampling of end-to-end equipment and Facility Ratings.

Provide the timetable for completion of the Mitigation Plan, including the completion date by which the Mitigation Plan will be fully implemented and the violations associated with this Mitigation Plan are corrected:

Proposed Completion date of Mitigation Plan: March 31, 2021

Milestone Activities, with completion dates, that your organization is proposing for this Mitigation Plan:

Milestone Activity	Description	*Proposed Completion Date (Shall not be greater than 3 months apart)	Actual Completion Date	Entity Comment on Milestone Completion	Extension Request Pending
Task 1	Implement controls to improve data accuracy through a multi-peer check process to parallel the existing process. Various peer checks will be used to	05/15/2020			No

Milestone Activity	Description	*Proposed Completion Date (Shall not be greater than 3 months apart)	Actual Completion Date	Entity Comment on Milestone Completion	Extension Request Pending
	validate all equipment or Facility ratings changes in each group responsible for maintenance of accurate equipment or Facility Ratings. Peer check steps should include documentation of the peer check and the performer. The purpose is to improve controls until PHI's revised process for Facility Ratings is implemented. This interim process will be retired upon the effective date of the revised Facility Ratings process documentation, which will include updates to internal controls.				
Task 2	Communicate interim peer check process/job aid to validate all equipment or Facility ratings changes to each group responsible for peer checks and obtain key manager acknowledgment of implementation of peer check process.	05/15/2020			No
Task 3	PHI procedure "PHI-FAC-008-FINAL (Revision 9.0) - Establish and Communicate Facility Ratings" submitted to	06/01/2020			No

Milestone Activity	Description	*Proposed Completion Date (Shall not be greater than 3 months apart)	Actual Completion Date	Entity Comment on Milestone Completion	Extension Request Pending
	the Exelon Management Model with notification to Substation Engineering and Drafting, Transmission Engineering, Protection and Control Engineering, T&S Standards and Equipment Engineering, Transmission Reliability Planning, System Operations, and Meter Services leads.				
Task 4	Establish a standard repository for relay load limits across PHI, establish notification updates to stakeholders, and migrate all relay load limit data to that standard repository. Identify and establish subscriptions for appropriate recipients of update notifications.	06/05/2020			No
Task 5	Draft and communicate Technical Bulletin to reinforce expectations to stakeholders who are responsible for the Transmission equipment and facility ratings process. The bulletin will review the responsibilities of each stakeholder	06/15/2020			No

Milestone Activity	Description	*Proposed Completion Date (Shall not be greater than 3 months apart)	Actual Completion Date	Entity Comment on Milestone Completion	Extension Request Pending
	group. The following stakeholder groups will be addressed: Area Maintenance Engineering Team (T&S), Business Planning & Support (T&S), Meter Services, Operations & Control Center, Project & Construction Management, Protection & Control Engineering (T&S), Standards & Equipment Engineering (T&S), Substation Construction, Maintenance, and Relay (T&S), Substation Engineering & Drafting, Transmission Engineering-Overhead & Underground (T&S), Transmission Reliability Planning.				
Task 6	Establish a compliance monitoring plan in conjunction with PHI FAC-008 Standard Owners to evaluate PHI facility rating program implementation accuracy and effectiveness of internal controls. Plan should address periodic review of methodology and associated FAC-008	06/30/2020			No

Milestone Activity	Description	*Proposed Completion Date (Shall not be greater than 3 months apart)	Actual Completion Date	Entity Comment on Milestone Completion	Extension Request Pending
	processes including supporting documentation for equipment ratings, periodic field verification sampling, periodic equipment surveys, and sampling of end-to-end equipment and facility rating process. Plan should address actions by SMEs, FAC-008 Standard Owners, and PHI NERC Compliance. Plan should leverage tracking tools action item(s) to assign action items to the FAC-008 Standard Owner/SMEs, PHI compliance, or other key stakeholders.				
Task 7	Prepare and submit disclosure of additional discrepancies for completed Facility reviews to ReliabilityFirst and identify overall progress of Facility reviews. Identify corrected discrepancies and provide evidence of correction.	06/30/2020			No
Task 10	DPL Substation Engineering and Drafting and Meter Services to establish a cross departmental team to determine process for involving	08/28/2020			No

Milestone Activity	Description	*Proposed Completion Date (Shall not be greater than 3 months apart)	Actual Completion Date	Entity Comment on Milestone Completion	Extension Request Pending
	Meter Services department during substation design. Meter Services Dept also to be added to Substation One-Line Distribution List.				
Task 11	ACE Substation Engineering and Drafting and Meter Services to establish a cross departmental team to determine process for involving Meter Services department during substation design. Meter Services Dept also to be added to Substation One-Line Distribution List.	08/28/2020			No
Task 8	Substation Engineering and Drafting and Meter Services to establish a cross departmental team to determine process for involving Meter Services department during substation design. Meter Services Dept also to be added to Substation One-Line Distribution List.	08/28/2020			No
Task 9	PEPCO Substation Engineering and Drafting and Meter Services to establish a cross departmental team to determine process for involving Meter Services department during substation design. Meter Services Dept	08/28/2020			No

Milestone Activity	Description	*Proposed Completion Date (Shall not be greater than 3 months apart)	Actual Completion Date	Entity Comment on Milestone Completion	Extension Request Pending
	also to be added to Substation One-Line Distribution List.				
Task 12	Prepare and submit disclosure of additional discrepancies for completed Facility reviews to ReliabilityFirst and identify overall progress of Facility reviews. Identify corrected discrepancies and provide evidence of correction.	09/30/2020			No
Task 13	To establish a high-level Management Model process document to describe the relationship between Exelon Utility performing teams and EU Transmission teams within the transmission equipment and Facility rating process. This document should specifically refer to the transmission equipment and Facility rating process used at each of the Exelon Utilities including ACE, DPL, and Pepco.	10/30/2020			No
Task 14a	Develop an EU Transmission Reliability Planning management model procedure that describes the steps	10/30/2020			No

Milestone Activity	Description	*Proposed Completion Date (Shall not be greater than 3 months apart)	Actual Completion Date	Entity Comment on Milestone Completion	Extension Request Pending
	performed by Transmission Reliability Planning for PHI's transmission equipment and facility rating process. The procedure should include details on Exelon Utilities and EU Transmission roles & responsibilities for BES ratings updates and communications between Rating Engineer, Transmission Standards and Equipment Engineering and Transmission System Operations.				
Task 14b	Develop an EU EMS Ratings Update management model procedure that describes the steps performed by EU TSO EMS Support Group to maintain new and existing equipment and Facility ratings related to PHI's new EMS.	10/30/2020			No
Task 15	T&S Engineering will revise Pepco Holdings Administrative Procedure, CM-PH-0003, Transmission and Substation Equipment Ratings to refine roles and	10/30/2020			No

Milestone Activity	Description	*Proposed Completion Date (Shall not be greater than 3 months apart)	Actual Completion Date	Entity Comment on Milestone Completion	Extension Request Pending
	responsibilities including clearly designating Governance, Oversight, Support and Perform stakeholder requirements. This includes development of a GOSP model that lists work groups in the header and tasks in rows for each phase/step of a project. The GOSP model will indicate the role of each work group for each task at the intersection of the task row and the work group column. Procedure CM-PH-0003 will also identify roles and responsibilities during limiting conditions that may arise after a facility is placed in service. Updates will include: <ul style="list-style-type: none"> • Clear identification of performing groups and the roles and responsibilities for coordinating the equipment rating process with applicable stakeholders • Data management control requirements such as required peer checks at necessary data exchange/recordation points in the 				

Milestone Activity	Description	*Proposed Completion Date (Shall not be greater than 3 months apart)	Actual Completion Date	Entity Comment on Milestone Completion	Extension Request Pending
	process. • Link the LRE Model and Project Management Procedures to CM-PH-0003, Transmission and Substation Equipment Ratings. • Include references to all documents reviewed and maintained under CA 7 to ensure methodology references all other equipment rating documents.				
Task 16	Create a consolidated index within Substation Engineering and Drafting, Aerial and Underground Engineering, and Relay and Protection of equipment ratings methodologies used for rating of equipment within PHI. The index should include annotations for which PHI entity uses the rating method. References to the index documents should be included as reference documents in revisions to CM-PH-0003.	10/30/2020			No
Task 17	Utilize the revised CM-PH-0003, Transmission and Substation	11/30/2020			No

Milestone Activity	Description	*Proposed Completion Date (Shall not be greater than 3 months apart)	Actual Completion Date	Entity Comment on Milestone Completion	Extension Request Pending
	Equipment Ratings Procedure and the GOSP Model to provide training to relevant stakeholders. This training should at a minimum cover PHI's FAC-008 Compliance Program, PHI's Facility Ratings Methodology, the PHI ratings process, and GOSP with the specific job responsibilities.				
Task 18	Update PHI Project Management checklist or other necessary PHI Project Management documents to: (1) ensure facility rating is communicated to System Operations prior to energization/in-service; and (2) verify System Ops has entered the correct facility ratings in PHI EMS and PJM EMS. Communicate same to project management performers.	11/30/2020			No
Task 19a	Develop Job Aids and conduct training with all performers within each of the respective stakeholder groups. Job Aids must detail specific steps necessary to perform each group's role	12/15/2020			No

Milestone Activity	Description	*Proposed Completion Date (Shall not be greater than 3 months apart)	Actual Completion Date	Entity Comment on Milestone Completion	Extension Request Pending
	within the transmission equipment and Facility rating process and instruction on use of any tools needed to perform work. Job Aids should include cross references to CM-PH-0003 and the EU Transmission Reliability Planning procedure.				
Task 19b	Ensure all members of EU TSO EMS Support Group complete OSI Maintenance Center training, which includes how to maintain Facility Ratings in the new EMS.	12/15/2020			No
Task 20	Develop / update Job Aid for how to calculate Code 1 ratings for the PHI transmission system. Distribute Job Aid to Engineers within Transmission Reliability Planning.	12/17/2020			No
Task 21	Develop / update Job Aid for when and how to implement and remove Code 1 ratings for equipment within the ACE/DPL and Pepco Energy Management Systems.	12/17/2020			No
Task 22	Verify all existing Code 1 facility ratings on the PHI system.	12/17/2020			No

Milestone Activity	Description	*Proposed Completion Date (Shall not be greater than 3 months apart)	Actual Completion Date	Entity Comment on Milestone Completion	Extension Request Pending
Task 23	Form a cross-functional team to create a long-term action plan on use of Code 1 ratings for the PHI transmission system. This plan must address: <ul style="list-style-type: none"> • Procedure updates for when and how to implement and remove Code 1 ratings for equipment within the ACE/DPL and Pepco Energy Management Systems based on the outcome of review of Code 1 ratings at PHI; • Training of any personnel involved in the transmission equipment and facility ratings process required to handle Code 1 ratings; • Training of transmission operators in the future EU transmission operation control centers on the use of Code 1 ratings within the ACE/DPL and Pepco operational areas; • Ensuring that the future EMS has the functionality to manage the execution of Code 1 ratings for relevant PHI transmission 	12/17/2020			No

Milestone Activity	Description	*Proposed Completion Date (Shall not be greater than 3 months apart)	Actual Completion Date	Entity Comment on Milestone Completion	Extension Request Pending
	system equipment; and • If Code 1 ratings will not be used in the future, an alternate strategy to be developed for retirement/phase out.				
Task 24	Prepare and submit disclosure of additional discrepancies for completed Facility reviews to ReliabilityFirst and identify overall progress of Facility reviews. Identify corrected discrepancies and provide evidence of correction.	12/21/2020			No
Task 25	Develop the implementation plan for use of LOAD facility rating tool in PHI. Implementation should include actions to review and update procedures, train Substation Engineering and Drafting, Transmission Engineering, Protection and Control Engineering, T&S Standards and Equipment Engineering Transmission Reliability Planning, System Operations, Project Management and Meter Services on changes resulting	02/01/2021			No

Milestone Activity	Description	*Proposed Completion Date (Shall not be greater than 3 months apart)	Actual Completion Date	Entity Comment on Milestone Completion	Extension Request Pending
	from tool implementation, and validation check for migration of data into LOAD. Consider as part of implementation inclusion of requirement to complete an assigned training program prior to obtaining access to LOAD.				
Task 26	Consolidate ACE, DPL and PEPCO Substation equipment ratings methodologies in one document. Align methodology where possible. Including application of historical methodology. <ul style="list-style-type: none"> • Any differences between regions should be included in the document with explanations. • Revision per NERC document guideline every 2 years. 	02/26/2021			No
Task 27	Develop and assign annual LMS based training to provide a detailed overview of PHI transmission equipment and facility rating processes including: <ul style="list-style-type: none"> • FAC-008 NERC standard requirements, • Scope of activities 	03/01/2021			No

Milestone Activity	Description	*Proposed Completion Date (Shall not be greater than 3 months apart)	Actual Completion Date	Entity Comment on Milestone Completion	Extension Request Pending
	<p>that are covered by PHI transmission equipment and facility rating processes including planned and emergency changes,</p> <ul style="list-style-type: none"> • CM-PH-0003 - Transmission and Substation Equipment Ratings and EU Transmission Reliability Planning Procedure, • Description of available Job Aids by team and description of equipment rating methodology indexes, and • Key roles and responsibilities of each responsible group in the transmission equipment and facility rating processes. <p>The training should be assigned to the following responsible groups: Substation Engineering and Drafting, Transmission Engineering, Protection and Control Engineering, T&S Standards and Equipment Engineering, Transmission Reliability Planning, System Operations, and Meter Services.</p>				
Task 28	Prepare and submit	03/31/2021			No

Milestone Activity	Description	*Proposed Completion Date (Shall not be greater than 3 months apart)	Actual Completion Date	Entity Comment on Milestone Completion	Extension Request Pending
	disclosure of additional discrepancies for completed Facility reviews to ReliabilityFirst and identify overall progress of Facility reviews. Identify corrected discrepancies and provide evidence of correction.				
Task 29	PHI and EU Transmission Reliability Planning will establish a plan for ACE, DPL, and Pepco to complete remediation for any discrepancies that require additional time and planning to complete.	03/31/2021			No

Additional Relevant Information

Beyond the mitigation steps noted above, Exelon is taking steps to continuously improve the overall effectiveness of the PHI Transmission Equipment and Facility Rating program as part of the overall project to centralize Transmission Planning work across the Exelon Utilities (EU). For example, as noted in the mitigating steps above, Exelon will be documenting plans to implement LOAD, a common application tool to document equipment and Facility Ratings that will be used by all Exelon Utilities. Exelon will also leverage the peer working group, comprised of representatives from all EU Transmission & Substation organizations, to compare equipment rating methodologies across each utility operating company and thereafter make recommendations to senior leadership for alignment. In addition, Exelon will implement automated technical capability in its new EMS to compare PHI EMS to PJM EMS values and PHI EMS values to those in the PHI Facility Rating system. Finally, a corrective action effectiveness review will be performed in late 2021, by the root cause analysis performance assessment lead and others, to assess the implementation of corrective actions designed to prevent recurrences associated with root cause(s).

Reliability Risk

Reliability Risk

While the Mitigation Plan is being implemented, the reliability of the bulk Power System may remain at higher Risk or be otherwise negatively impacted until the plan is successfully completed. To the extent they are known or anticipated : (i) Identify any such risks or impacts, and; (ii) discuss any actions planned or proposed to address these risks or impacts.

The PHI Utilities have not experienced any system related events due to any of the identified potential discrepancies. PHI prioritized review work, to the extent possible, to focus on the most critical Facilities early in reviews. In addition, PHI is correcting potential discrepancies as expeditiously as possible, taking into account the necessary reliability studies and planning, to ensure proper and reliable adjustments to any impacted Facility Ratings. As noted in the self-report, PHI and the EU staff are evaluating all potential discrepancies by performing studies accounting for any Facility Ratings changes against NERC, PJM and PHI planning criteria. PHI has not identified any current planning criteria violations for Facilities where a potential decrease in the overall Facility Rating was identified. The analysis is based on internal preliminary planning evaluations and may be updated.

Operational reviews have also been performed to assess the maximum historical load on Facilities identified for a Facility Ratings decrease. The review method is employed to determine if a Facility has been loaded above the MVA limits that should have been in place. One Pepco Facility was determined to have been loaded above its corrected normal rating for approximately 4 minutes but was not loaded above its emergency limit. Additional historic loading reviews will be conducted as ongoing facility rating updates are completed, to ensure any additional historic ratings violations are identified and evaluated for impact. PHI will continue to perform similar assessments for any additional Facilities that require a decrease in ratings against both planning criteria and historical operational loading levels.

To further mitigate any potential risk to the Bulk Power System while implementing the Mitigation Plan, PHI has included the short-term actions described above to reinforce roles and responsibilities and add data validation steps into the process. These measures will reduce the risk of additional errors while improvements to the program are implemented.

Prevention

Describe how successful completion of this plan will prevent or minimize the probability further violations of the same or similar reliability standards requirements will occur

The actions included in the mitigation plan overhaul the PHI Transmission Equipment and Facility Ratings program by implementing improved procedural controls (program and performer level); by adding comprehensive, ongoing training of personnel; and by improving detective/compliance oversight controls for the PHI Transmission Equipment and Facility Rating program. Documentation for the PHI Transmission Equipment and Facility Rating program will be in-place, starting with a high-level governance document for the interaction between PHI equipment rating performers and Transmission Reliability Planning performers and extending down through implementing procedures and performer level instruction. Documents will contain detailed roles and responsibilities and baseline steps for performance to guide and instruct performers (existing or new) as well as decrease the potential impacts of operational silos among performance groups. Performers will have baseline training on all procedural improvements and be given clear expectations for execution. The PHI Transmission Equipment and Facility Rating program will also benefit from ongoing, regular training designed to ground performers and establish a high and consistent level of performance by personnel. The mitigation plan addresses: (1) the process gaps and lack of clarity noted in the root causes;(2) the human performance deficiencies that resulted from lack of peer checks and lack of clarity on roles and responsibilities; and (3) includes controls through improved compliance monitoring to measure continued success in the implementation of the PHI Transmission Equipment and Facility Rating program over time. Overall, the plan will improve the governance, oversight, support, and performance aspects of the PHI Transmission Equipment and Facility Rating program.

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Describe any action that may be taken or planned beyond that listed in the mitigation plan, to prevent or minimize the probability of incurring further violations of the same or similar standards requirements

None.

Authorization

An authorized individual must sign and date the signature page. By doing so, this individual, on behalf of your organization:

- * Submits the Mitigation Plan, as presented, to the regional entity for acceptance and approval by NERC, and
- * if applicable, certifies that the Mitigation Plan, as presented, was completed as specified.

Acknowledges:

1. I am qualified to sign this mitigation plan on behalf of my organization.
2. I have read and understand the obligations to comply with the mitigation plan requirements and ERO remedial action directives as well as ERO documents, including but not limited to, the NERC rules of procedure and the application NERC CMEP.
3. I have read and am familiar with the contents of the foregoing Mitigation Plan.

Potomac Electric Power Company Agrees to be bound by, and comply with, this Mitigation Plan, including the timetable completion date, as accepted by the Regional Entity, NERC, and if required, the applicable governmental authority.

Authorized Individual Signature: _____

(Electronic signature was received by the Regional Office via CDMS. For Electronic Signature Policy see CMEP.)

Authorized Individual

Name: Mark Yerger

Title: Manager, Utility Compliance

Authorized On: June 04, 2020

Certification of Mitigation Plan Completion

Submittal of a Certification of Mitigation Plan Completion shall include data or information sufficient for the Regional Entity to verify completion of the Mitigation Plan. The Regional Entity may request additional data or information and conduct follow-up assessments, on-site or other Spot Checking, or Compliance Audits as it deems necessary to verify that all required actions in the Mitigation Plan have been completed and the Registered Entity is in compliance with the subject Reliability Standard. (CMEP Section 6.6)

Registered Entity Name: Atlantic City Electric Company

NERC Registry ID: NCR00688

NERC Violation ID(s): RFC2020023212

Mitigated Standard Requirement(s): FAC-008-3 R6.

Scheduled Completion as per Accepted Mitigation Plan: March 31, 2021

Date Mitigation Plan completed: March 31, 2021

RF Notified of Completion on Date: April 14, 2021

Entity Comment:

Additional Documents			
From	Document Name	Description	Size in Bytes
Entity	Evidence Package - Tasks 1 and 2.pdf	Evidence for Tasks 1 & 2	489,173
Entity	Evidence Package - Tasks 3 and 4.pdf	Evidence for Tasks 3 & 4	3,934,936
Entity	Evidence Package - Task 5.pdf	Evidence for Task 5	1,356,203
Entity	Evidence Package - Tasks 6 and 7.pdf	Evidence for Tasks 6 & 7	27,403,043
Entity	Evidence Package - Tasks 8_9_10_and_11.pdf	Evidence for Tasks 8, 9, 10, & 11	1,713,209
Entity	Evidence Package - Task 12.pdf	Evidence for Task 12	33,853,859
Entity	Evidence Package - Tasks 13, 14a, 14b, 15, and 16.pdf	Evidence for Tasks 13, 14a, 14b, 15 & 16	3,251,521
Entity	Evidence Package - Tasks 17 and 18.pdf	Evidence for Tasks 17 & 18	9,423,369
Entity	Evidence Package - Tasks 19a and 19b.pdf	Evidence for Tasks 19a and 19b	17,631,979
Entity	Evidence Package - Tasks 20, 21, 22, and 23.pdf	Evidence for Tasks 20, 21, 22, and 23	3,707,781
Entity	Evidence Package - Task 24.pdf	Evidence for Task 24	13,573,592
Entity	Evidence Package - Task 25.pdf	Evidence for Task 25	1,100,774

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April 20, 2021

Additional Documents			
From	Document Name	Description	Size in Bytes
Entity	Evidence Package - Task 26.pdf	Evidence for Task 26	3,226,575
Entity	Evidence Package - Task 27.pdf	Evidence for Task 27	15,804,911
Entity	Evidence Package - Tasks 28 and 29.pdf	Evidence for Tasks 28 & 29	37,344,562

I certify that the Mitigation Plan for the above named violation(s) has been completed on the date shown above and that all submitted information is complete and correct to the best of my knowledge.

Name: Mark Yerger

Title: Manager, Utility Compliance

Email: mark.yerger@pepcoholdings.com

Phone: (302) 454-4121

Authorized Signature _____ Date _____

(Electronic signature was received by the Regional Office via CDMS. For Electronic Signature Policy see CMEP.)

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Submittal of a Certification of Mitigation Plan Completion shall include data or information sufficient for the Regional Entity to verify completion of the Mitigation Plan. The Regional Entity may request additional data or information and conduct follow-up assessments, on-site or other Spot Checking, or Compliance Audits as it deems necessary to verify that all required actions in the Mitigation Plan have been completed and the Registered Entity is in compliance with the subject Reliability Standard. (CMEP Section 6.6)

Registered Entity Name: Delmarva Power & Light Company

NERC Registry ID: NCR00752

NERC Violation ID(s): RFC2020023213

Mitigated Standard Requirement(s): FAC-008-3 R6.

Scheduled Completion as per Accepted Mitigation Plan: March 31, 2021

Date Mitigation Plan completed: March 31, 2021

RF Notified of Completion on Date: April 14, 2021

Entity Comment:

Additional Documents			
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I certify that the Mitigation Plan for the above named violation(s) has been completed on the date shown above and that all submitted information is complete and correct to the best of my knowledge.

Name: Mark Yerger

Title: Manager, Utility Compliance

Email: mark.yerger@pepcoholdings.com

Phone: (302) 454-4121

Authorized Signature _____ Date _____

(Electronic signature was received by the Regional Office via CDMS. For Electronic Signature Policy see CMEP.)

Certification of Mitigation Plan Completion

Submittal of a Certification of Mitigation Plan Completion shall include data or information sufficient for the Regional Entity to verify completion of the Mitigation Plan. The Regional Entity may request additional data or information and conduct follow-up assessments, on-site or other Spot Checking, or Compliance Audits as it deems necessary to verify that all required actions in the Mitigation Plan have been completed and the Registered Entity is in compliance with the subject Reliability Standard. (CMEP Section 6.6)

Registered Entity Name: Potomac Electric Power Company

NERC Registry ID: NCR00881

NERC Violation ID(s): RFC2020023214

Mitigated Standard Requirement(s): FAC-008-3 R6.

Scheduled Completion as per Accepted Mitigation Plan: March 31, 2021

Date Mitigation Plan completed: March 31, 2021

RF Notified of Completion on Date: April 14, 2021

Entity Comment:

Additional Documents			
From	Document Name	Description	Size in Bytes
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April 20, 2021

Additional Documents			
From	Document Name	Description	Size in Bytes
Entity	Evidence Package - Task 26.pdf	Evidence for Task 26	3,226,575
Entity	Evidence Package - Task 27.pdf	Evidence for Task 27	15,804,911
Entity	Evidence Package - Tasks 28 and 29.pdf	Evidence for Tasks 28 & 29	37,344,562

I certify that the Mitigation Plan for the above named violation(s) has been completed on the date shown above and that all submitted information is complete and correct to the best of my knowledge.

Name: Mark Yerger

Title: Manager, Utility Compliance

Email: mark.yerger@pepcoholdings.com

Phone: (302) 454-4121

Authorized Signature _____ Date _____

(Electronic signature was received by the Regional Office via CDMS. For Electronic Signature Policy see CMEP.)



Mitigation Plan Verification for RFC2020023212

Atlantic City Electric Company (“ACE”)

Standard/Requirement: FAC-008-3 R6

NERC Mitigation Plan ID: RFCMIT015134

Date of Completion of Mitigation: March 31, 2021

Description of Issue: [Case File](#)

Evidence Reviewed	
File Name	Description of Evidence
File 1	Evidence Package - Tasks 1 and 2
File 2	Evidence Package - Tasks 3 and 4
File 3	Evidence Package – Task 5
File 4	Evidence Package - Tasks 6 and 7
File 5	Evidence Package - Tasks 8 9 10 and 11
File 6	Evidence Package - Task 12
File 7	Evidence Package - Tasks 13, 14a, 14b, 15, and 16
File 8	Evidence Package - Tasks 17 and 18
File 9	Evidence Package - Tasks 19a and 19b
File 10	Evidence Package - Tasks 20, 21, 22, and 23
File 11	Evidence Package - Task 24
File 12	Evidence Package - Task 25
File 13	Evidence Package - Task 26
File 14	Evidence Package - Task 27
File 15	Evidence Package - Tasks 28 and 29

Verification of Mitigation Plan Completion

Milestone 1: Implement controls to improve data accuracy through a multi-peer check process to parallel the existing process. Various peer checks will be used to validate all equipment or Facility



ratings changes in each group responsible for maintenance of accurate equipment or Facility Ratings. Peer check steps should include documentation of the peer check and the performer. The purpose is to improve controls until PHI's revised process for Facility Ratings is implemented. This interim process will be retired upon the effective date of the revised Facility Ratings process documentation, which will include updates to internal controls.

Proposed Completion Date: 5/15/2020

Actual Completion Date: 05/11/2020

The following file was reviewed.

File 1	Evidence Package - Tasks 1 and 2
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The process plus Email correspondence showing the process was rolled out was provided as evidence.

Milestone #1: Completion verified.

Milestone 2: Communicate interim peer check process/job aid to validate all equipment or Facility ratings changes to each group responsible for peer checks and obtain key manager acknowledgment of implementation of peer check process.

Proposed Completion Date: 5/15/2020

Actual Completion Date: 5/13/2020

The following file was reviewed.

File 1	Evidence Package - Tasks 1 and 2
--------	----------------------------------

The process plus Email correspondence showing the process was implemented was provided as evidence.

Milestone #2: Completion verified.



Milestone 3: PHI procedure "PHI-FAC-008-FINAL (Revision 9.0) -Establish and Communicate Facility Ratings" submitted to the Exelon Management Model with notification to Substation Engineering and Drafting, Transmission Engineering, Protection and Control Engineering, T&S Standards and Equipment Engineering, Transmission Reliability Planning, System Operations, and Meter Services leads.

Proposed Completion Date: 6/01/2020

Actual Completion Date: 5/29/2020

The following file was reviewed.

File 2	Evidence Package - Tasks 3 and 4
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Email correspondence and SharePoint screenshots were provided showing the new procedure was created and disseminated.

Milestone #3: Completion verified.

Milestone 4: Establish a standard repository for relay load limits across PHI, establish notification updates to stakeholders, and migrate all relay load limit data to that standard repository. Identify and establish subscriptions for appropriate recipients of update notifications.

Proposed Completion Date: 6/05/2020

Actual Completion Date: 6/1/2020

The following file was reviewed.

File 2	Evidence Package - Tasks 3 and 4
--------	----------------------------------

Evidence consisting of screenshots and email correspondence were provided showing that the repository was set up and personnel were notified.

Milestone #4: Completion verified.



Milestone 5: Draft and communicate Technical Bulletin to reinforce expectations to stakeholders who are responsible for the Transmission equipment and facility ratings process. The bulletin will review the responsibilities of each stakeholder group. The following stakeholder groups will be addressed: Area Maintenance Engineering Team (T&S), Business Planning & Support (T&S), Meter Services, Operations & Control Center, Project & Construction Management, Protection & Control Engineering (T&S), Standards & Equipment Engineering (T&S), Substation Construction, Maintenance, and Relay (T&S), Substation Engineering & Drafting, Transmission Engineering-Overhead & Underground (T&S), Transmission Reliability Planning.

Proposed Completion Date: 6/15/2020

Actual Completion Date: 6/15/2020

The following file was reviewed.

File 3	Evidence Package – Task 5
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Evidence was provided to support milestone.

Milestone #5: Completion verified. 05/24/2021

Milestone 6: Establish a compliance monitoring plan in conjunction with PHI FAC-008 Standard Owners to evaluate PHI facility rating program implementation accuracy and effectiveness of internal controls. Plan should address periodic review of methodology and associated FAC-008 processes including supporting documentation for equipment ratings, periodic field verification sampling, periodic equipment surveys, and sampling of end-to-end equipment and facility rating process. Plan should address actions by SMEs, FAC-008 Standard Owners, and PHI NERC Compliance. Plan should leverage tracking tools action item(s) to assign action items to the FAC-008 Standard Owner/SMEs, PHI compliance, or other key stakeholders.

Proposed Completion Date: 6/30/2020

Actual Completion Date: 6/30/2020

The following file was reviewed.

File 4	Evidence Package - Tasks 6 and 7
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Evidence was provided to support milestone.

Milestone #6: Completion verified.

Milestone 7: Prepare and submit disclosure of additional discrepancies for completed Facility reviews to ReliabilityFirst and identify overall progress of Facility reviews. Identify corrected discrepancies and provide evidence of correction.

Proposed Completion Date: 6/30/2020

Actual Completion Date: 6/30/2020

The following file was reviewed.

File 4	Evidence Package - Tasks 6 and 7
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Evidence was provided to support milestone.

Milestone #7: Completion verified:

Milestone 8: Substation Engineering and Drafting and Meter Services to establish a cross departmental team to determine process for involving Meter Services department during substation design. Meter Services Dept also to be added to Substation One-Line Distribution List.

Proposed Completion Date: 8/28/2020

Actual Completion Date: 8/24/2020

The following file was reviewed.

File 5	Evidence Package - Tasks 8 9 10 and 11
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Evidence was provided to support milestone.

Milestone #8: Completion verified.



Milestone 9: PEPCO Substation Engineering and Drafting and Meter Services to establish a cross departmental team to determine process for involving Meter Services department during substation design. Meter Services Dept also to be added to Substation One-Line Distribution List.

Proposed Completion Date: 8/28/2020

Actual Completion Date: 8/24/2020

The following file was reviewed.

File 5	Evidence Package - Tasks 8 9 10 and 11
--------	--

Evidence was provided to support milestone.

Milestone #9: Completion verified.

Milestone 10: DPL Substation Engineering and Drafting and Meter Services to establish a cross departmental team to determine process for involving Meter Services department during substation design. Meter Services Dept also to be added to Substation One-Line Distribution List.

Proposed Completion Date: 8/28/2020

Actual Completion Date: 8/19/2020

The following file was reviewed.

File 5	Evidence Package - Tasks 8 9 10 and 11
--------	--

Evidence was provided to support milestone.

Milestone #10: Completion verified.



Milestone 11: ACE Substation Engineering and Drafting and Meter Services to establish a cross departmental team to determine process for involving Meter Services department during substation design. Meter Services Dept also to be added to Substation One-Line Distribution List.

Proposed Completion Date: 8/28/2020

Actual Completion Date: 8/21/2020

The following file was reviewed.

File 5	Evidence Package - Tasks 8 9 10 and 11
--------	--

Evidence was provided to support milestone.

Milestone #11: Completion verified.

Milestone 12: Prepare and submit disclosure of additional discrepancies for completed Facility reviews to ReliabilityFirst and identify overall progress of Facility reviews. Identify corrected discrepancies and provide evidence of correction.

Proposed Completion Date: 9/30/2020

Actual Completion Date: 9/30/2020

The following file was reviewed.

File 6	Evidence Package - Task 12
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Evidence was provided to support milestone.

Milestone #12: Completion verified.

Milestone 13: To establish a high-level Management Model process document to describe the relationship between Exelon Utility performing teams and EU Transmission teams within the transmission equipment and Facility rating process. This document should specifically refer to the



transmission equipment and Facility rating process used at each of the Exelon Utilities including ACE, DPL, and Pepco.

Proposed Completion Date: 10/30/2020

Actual Completion Date: 10/30/2020

The following file was reviewed.

File 7	Evidence Package - Tasks 13, 14a, 14b, 15, and 16
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Evidence was provided to support milestone.

Milestone #13: Completion verified:

Milestone 14a: Develop an EU Transmission Reliability Planning management model procedure that describes the steps performed by Transmission Reliability Planning for PHI's transmission equipment and facility rating process. The procedure should include details on Exelon Utilities and EU Transmission roles & responsibilities for BES ratings updates and communications between Rating Engineer, Transmission Standards and Equipment Engineering and Transmission System Operations.

Proposed Completion Date: 10/30/2020

Actual Completion Date: 10/30/2020

The following file was reviewed.

File 7	Evidence Package - Tasks 13, 14a, 14b, 15, and 16
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Evidence was provided to support milestone.

Milestone #14a: Completion verified.



Milestone 14b: Develop an EU EMS Ratings Update management model procedure that describes the steps performed by EU TSO EMS Support Group to maintain new and existing equipment and Facility ratings related to PHI's new EMS.

Proposed Completion Date: 10/30/2020

Actual Completion Date: 10/22/2020

The following file was reviewed.

File 7	Evidence Package - Tasks 13, 14a, 14b, 15, and 16
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Evidence was provided to support milestone.

Milestone #14b: Completion verified.

Milestone 15: T&S Engineering will revise Pepco Holdings Administrative Procedure, CM-PH-0003, Transmission and Substation Equipment Ratings to refine roles and responsibilities including clearly designating Governance, Oversight, Support and Perform stakeholder requirements. This includes development of a GOSP model that lists work groups in the header and tasks in rows for each phase/step of a project. The GOSP model will indicate the role of each work group for each task at the intersection of the task row and the work group column. Procedure CM-PH-0003 will also identify roles and responsibilities during limiting conditions that may arise after a facility is placed in service. Updates will include: Clear identification of performing groups and the roles and responsibilities for coordinating the equipment rating process with applicable stakeholders; Data management control requirements such as required peer checks at necessary data exchange/recording points in the process; Link the LRE Model and Project Management Procedures to CM-PH-0003, Transmission and Substation Equipment Ratings, and include references to all documents reviewed and maintained under CA 7 to ensure methodology references all other equipment rating documents.

Proposed Completion Date: 10/30/2020

Actual Completion Date: 10/19/2020

The following file was reviewed.

File 7	Evidence Package - Tasks 13, 14a, 14b, 15, and 16
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Evidence was provided to support milestone.

Milestone #15: Completion verified.

Milestone 16: Create a consolidated index within Substation Engineering and Drafting, Aerial and Underground Engineering, and Relay and Protection of equipment ratings methodologies used for rating of equipment within PHI. The index should include annotations for which PHI entity uses the rating method. References to the index documents should be included as reference documents in revisions to CM-PH-0003.

Proposed Completion Date: 10/30/2020

Actual Completion Date: 09/28/2020

The following file was reviewed.

File 7	Evidence Package - Tasks 13, 14a, 14b, 15, and 16
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Evidence was provided to support milestone.

Milestone #16: Completion verified. 06/10/2021

Milestone 17: Utilize the revised CM-PH-0003, Transmission and Substation Equipment Ratings Procedure and the GOSP Model to provide training to relevant stakeholders. This training should at a minimum cover PHI's FAC-008 Compliance Program, PHI's Facility Ratings Methodology, the PHI ratings process, and GOSP with the specific job responsibilities.

Proposed Completion Date: 11/30/2020

Actual Completion Date: 11/30/2020

The following file was reviewed.

File 8	Evidence Package - Tasks 17 and 18
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Evidence was provided to support milestone.

Milestone #17: Completion verified.

Milestone 18: Update PHI Project Management checklist or other necessary PHI Project Management documents to: (1) ensure facility rating is communicated to System Operations prior to energization/in-service; and (2) verify System Ops has entered the correct facility ratings in PHI EMS and PJM EMS. Communicate same to project management performers.

Proposed Completion Date: 11/30/2020

Actual Completion Date: 11/20/2020

The following file was reviewed.

File 8	Evidence Package - Tasks 17 and 18
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Evidence was provided to support milestone.

Milestone #18: Completion verified.

Milestone 19a: Develop Job Aids and conduct training with all performers within each of the respective stakeholder groups. Job Aids must detail specific steps necessary to perform each group's role within the transmission equipment and Facility rating process and instruction on use of any tools needed to perform work. Job Aids should include cross references to CM-PH-0003 and the EU Transmission Reliability Planning procedure.

Proposed Completion Date: 12/15/2020

Actual Completion Date: 12/15/2020

The following file was reviewed.

File 9	Evidence Package - Tasks 19a and 19b
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Evidence was provided to support milestone.

Milestone #19a: Completion verified.

Milestone 19b: Ensure all members of EU TSO EMS Support Group complete OSI Maintenance Center training, which includes how to maintain Facility Ratings in the new EMS.

Proposed Completion Date: 12/15/2020

Actual Completion Date: 11/30/2020

The following file was reviewed.

File 9	Evidence Package - Tasks 19a and 19b
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Evidence was provided to support milestone.

Milestone #19b: Completion verified.

Milestone 20: Develop / update Job Aid for how to calculate Code 1 ratings for the PHI transmission system. Distribute Job Aid to Engineers within Transmission Reliability Planning.

Proposed Completion Date: 12/17/2020

Actual Completion Date: 12/15/2020

The following file was reviewed.

File 10	Evidence Package - Tasks 20, 21, 22, and 23
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Evidence was provided to support milestone.

Milestone #20: Completion verified.



Milestone 21: Develop / update Job Aid for when and how to implement and remove Code 1 ratings for equipment within the ACE/DPL and Pepco Energy Management Systems.

Proposed Completion Date: 12/17/2020

Actual Completion Date: 12/07/2020

The following file was reviewed.

File 10	Evidence Package - Tasks 20, 21, 22, and 23
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Evidence was provided to support milestone.

Milestone #21: Completion verified.

Milestone 22: Verify all existing Code 1 facility ratings on the PHI system.

Proposed Completion Date: 12/17/2020

Actual Completion Date: 12/15/2020

The following file was reviewed.

File 10	Evidence Package - Tasks 20, 21, 22, and 23
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Evidence was provided to support milestone.

Milestone #22: Completion verified.

Milestone 23: Form a cross-functional team to create a long-term action plan on use of Code 1 ratings for the PHI transmission system. This plan must address: Procedure updates for when and how to implement and remove Code 1 ratings for equipment within the ACE/DPL and Pepco Energy Management Systems based on the outcome of review of Code 1 ratings at PHI; Training



of any personnel involved in the transmission equipment and facility ratings process required to handle Code 1 ratings; Training of transmission operators in the future EU transmission operation control centers on the use of Code 1 ratings within the ACE/DPL and Pepco operational areas; Ensuring that the future EMS has the functionality to manage the execution of Code 1 ratings for relevant PHI transmission system equipment; and If Code 1 ratings will not be used in the future, an alternate strategy to be developed for retirement/phase out.

Proposed Completion Date: 12/17/2020

Actual Completion Date: 12/17/2020

The following file was reviewed.

File 10	Evidence Package - Tasks 20, 21, 22, and 23
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Evidence was provided to support milestone.

Milestone #23: Completion verified.

Milestone 24: Prepare and submit disclosure of additional discrepancies for completed Facility reviews to ReliabilityFirst and identify overall progress of Facility reviews. Identify corrected discrepancies and provide evidence of correction.

Proposed Completion Date: 12/21/2020

Actual Completion Date: 12/21/2020

The following file was reviewed.

File 11	Evidence Package - Task 24
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Evidence was provided to support milestone.

Milestone #24: Completion verified.



Milestone 25: Develop the implementation plan for use of LOAD facility rating tool in PHI. Implementation should include actions to review and update procedures, train Substation Engineering and Drafting, Transmission Engineering, Protection and Control Engineering, T&S Standards and Equipment Engineering Transmission Reliability Planning, System Operations, Project Management and Meter Services on changes resulting from tool implementation, and validation check for migration of data into LOAD. Consider as part of implementation inclusion of requirement to complete an assigned training program prior to obtaining access to LOAD.

Proposed Completion Date: 2/01/2021

Actual Completion Date: 1/28/2021

The following file was reviewed.

File 12	Evidence Package - Task 25
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Evidence was provided to support milestone.

Milestone #25: Completion verified.

Milestone 26: Consolidate ACE, DPL and PEPCO Substation equipment ratings methodologies in one document. Align methodology where possible. Including application of historical methodology. Any differences between regions should be included in the document with explanations. Revision per NERC document guideline every 2 years.

Proposed Completion Date: 2/26/2021

Actual Completion Date: 02/26/2021

The following file was reviewed.

File 13	Evidence Package - Task 26
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Evidence was provided to support milestone.

Milestone #26: Completion verified.



Milestone 27: Develop and assign annual LMS based training to provide a detailed overview of PHI transmission equipment and facility rating processes including: FAC-008 NERC standard requirements; Scope of activities that are covered by PHI transmission equipment and facility rating processes including planned and emergency changes; CM-PH-0003 -Transmission and Substation Equipment Ratings and EU Transmission Reliability Planning Procedure; Description of available Job Aids by team and description of equipment rating methodology indexes, and Key roles and responsibilities of each responsible group in the transmission equipment and facility rating processes. The training should be assigned to the following responsible groups: Substation Engineering and Drafting, Transmission Engineering, Protection and Control Engineering, T&S Standards and Equipment Engineering, Transmission Reliability Planning, System Operations, and Meter Services.

Proposed Completion Date: 3/01/2021

Actual Completion Date: 02/26/2021

The following file was reviewed.

File 14	Evidence Package - Task 27
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Evidence was provided to support milestone.

Milestone #27: Completion verified.

Milestone 28: Prepare and submit disclosure of additional discrepancies for completed Facility reviews to ReliabilityFirst and identify overall progress of Facility reviews. Identify corrected discrepancies and provide evidence of correction.

Proposed Completion Date: 3/31/2021

Actual Completion Date: 03/31/2021

The following file was reviewed.

File 15	Evidence Package - Tasks 28 and 29
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Evidence was provided to support milestone.

Milestone #28: Completion verified.

Milestone 29: PHI and EU Transmission Reliability Planning will establish a plan for ACE, DPL, and Pepco to complete remediation for any discrepancies that require additional time and planning to complete.

Proposed Completion Date: 3/31/2021

Actual Completion Date: 03/31/2021

The following file was reviewed.

File 15	Evidence Package - Tasks 28 and 29
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Evidence was provided to support milestone.

Milestone #29: Completion verified.

The Mitigation Plan is hereby verified complete.

A handwritten signature in black ink, appearing to read 'Anthony Jablonski'.

Date: June 21, 2021

Anthony Jablonski
Manager, Risk Analysis & Mitigation
ReliabilityFirst Corporation



Mitigation Plan Verification for RFC2020023213

Delmarva Power & Light Company (“DP&L”)

Standard/Requirement: FAC-008-3 R6

NERC Mitigation Plan ID: RFCMIT015135

Date of Completion of Mitigation: March 31, 2021

Description of Issue: [Case File](#)

Evidence Reviewed	
File Name	Description of Evidence
File 1	Evidence Package - Tasks 1 and 2
File 2	Evidence Package - Tasks 3 and 4
File 3	Evidence Package – Task 5
File 4	Evidence Package - Tasks 6 and 7
File 5	Evidence Package - Tasks 8 9 10 and 11
File 6	Evidence Package - Task 12
File 7	Evidence Package - Tasks 13, 14a, 14b, 15, and 16
File 8	Evidence Package - Tasks 17 and 18
File 9	Evidence Package - Tasks 19a and 19b
File 10	Evidence Package - Tasks 20, 21, 22, and 23
File 11	Evidence Package - Task 24
File 12	Evidence Package - Task 25
File 13	Evidence Package - Task 26
File 14	Evidence Package - Task 27
File 15	Evidence Package - Tasks 28 and 29



Verification of Mitigation Plan Completion

Milestone 1: Implement controls to improve data accuracy through a multi-peer check process to parallel the existing process. Various peer checks will be used to validate all equipment or Facility ratings changes in each group responsible for maintenance of accurate equipment or Facility Ratings. Peer check steps should include documentation of the peer check and the performer. The purpose is to improve controls until PHI's revised process for Facility Ratings is implemented. This interim process will be retired upon the effective date of the revised Facility Ratings process documentation, which will include updates to internal controls.

Proposed Completion Date: 5/15/2020

Actual Completion Date: 05/11/2020

The following file was reviewed.

File 1	Evidence Package - Tasks 1 and 2
--------	----------------------------------

The process plus Email correspondence showing the process was rolled out was provided as evidence.

Milestone #1: Completion verified.

Milestone 2: Communicate interim peer check process/job aid to validate all equipment or Facility ratings changes to each group responsible for peer checks and obtain key manager acknowledgment of implementation of peer check process.

Proposed Completion Date: 5/15/2020

Actual Completion Date: 5/13/2020

The following file was reviewed.

File 1	Evidence Package - Tasks 1 and 2
--------	----------------------------------

The process plus Email correspondence showing the process was implemented was provided as evidence.



Milestone #2: Completion verified.

Milestone 3: PHI procedure "PHI-FAC-008-FINAL (Revision 9.0) -Establish and Communicate Facility Ratings" submitted to the Exelon Management Model with notification to Substation Engineering and Drafting, Transmission Engineering, Protection and Control Engineering, T&S Standards and Equipment Engineering, Transmission Reliability Planning, System Operations, and Meter Services leads.

Proposed Completion Date: 6/01/2020

Actual Completion Date: 5/29/2020

The following file was reviewed.

File 2	Evidence Package - Tasks 3 and 4
--------	----------------------------------

Email correspondence and SharePoint screenshots were provided showing the new procedure was created and disseminated.

Milestone #3: Completion verified.

Milestone 4: Establish a standard repository for relay load limits across PHI, establish notification updates to stakeholders, and migrate all relay load limit data to that standard repository. Identify and establish subscriptions for appropriate recipients of update notifications.

Proposed Completion Date: 6/05/2020

Actual Completion Date: 6/1/2020

The following file was reviewed.

File 2	Evidence Package - Tasks 3 and 4
--------	----------------------------------



Evidence consisting of screenshots and email correspondence were provided showing that the repository was set up and personnel were notified.

Milestone #4: Completion verified.

Milestone 5: Draft and communicate Technical Bulletin to reinforce expectations to stakeholders who are responsible for the Transmission equipment and facility ratings process. The bulletin will review the responsibilities of each stakeholder group. The following stakeholder groups will be addressed: Area Maintenance Engineering Team (T&S), Business Planning & Support (T&S), Meter Services, Operations & Control Center, Project & Construction Management, Protection & Control Engineering (T&S), Standards & Equipment Engineering (T&S), Substation Construction, Maintenance, and Relay (T&S), Substation Engineering & Drafting, Transmission Engineering-Overhead & Underground (T&S), Transmission Reliability Planning.

Proposed Completion Date: 6/15/2020

Actual Completion Date: 6/15/2020

The following file was reviewed.

File 3	Evidence Package – Task 5
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Evidence was provided to support milestone.

Milestone #5: Completion verified.

Milestone 6: Establish a compliance monitoring plan in conjunction with PHI FAC-008 Standard Owners to evaluate PHI facility rating program implementation accuracy and effectiveness of internal controls. Plan should address periodic review of methodology and associated FAC-008 processes including supporting documentation for equipment ratings, periodic field verification sampling, periodic equipment surveys, and sampling of end-to-end equipment and facility rating process. Plan should address actions by SMEs, FAC-008 Standard Owners, and PHI NERC Compliance. Plan should leverage tracking tools action item(s) to assign action items to the FAC-008 Standard Owner/SMEs, PHI compliance, or other key stakeholders.

Proposed Completion Date: 6/30/2020



Actual Completion Date: 6/30/2020

The following file was reviewed.

File 4	Evidence Package - Tasks 6 and 7
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Evidence was provided to support milestone.

Milestone #6: Completion verified.

Milestone 7: Prepare and submit disclosure of additional discrepancies for completed Facility reviews to ReliabilityFirst and identify overall progress of Facility reviews. Identify corrected discrepancies and provide evidence of correction.

Proposed Completion Date: 6/30/2020

Actual Completion Date: 6/30/2020

The following file was reviewed.

File 4	Evidence Package - Tasks 6 and 7
--------	----------------------------------

Evidence was provided to support milestone.

Milestone #7: Completion verified:

Milestone 8: Substation Engineering and Drafting and Meter Services to establish a cross departmental team to determine process for involving Meter Services department during substation design. Meter Services Dept also to be added to Substation One-Line Distribution List.

Proposed Completion Date: 8/28/2020

Actual Completion Date: 8/24/2020

The following file was reviewed.



File 5	Evidence Package - Tasks 8 9 10 and 11
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Evidence was provided to support milestone.

Milestone #8: Completion verified.

Milestone 9: PEPCO Substation Engineering and Drafting and Meter Services to establish a cross departmental team to determine process for involving Meter Services department during substation design. Meter Services Dept also to be added to Substation One-Line Distribution List.

Proposed Completion Date: 8/28/2020

Actual Completion Date: 8/24/2020

The following file was reviewed.

File 5	Evidence Package - Tasks 8 9 10 and 11
--------	--

Evidence was provided to support milestone.

Milestone #9: Completion verified.

Milestone 10: DPL Substation Engineering and Drafting and Meter Services to establish a cross departmental team to determine process for involving Meter Services department during substation design. Meter Services Dept also to be added to Substation One-Line Distribution List.

Proposed Completion Date: 8/28/2020

Actual Completion Date: 8/19/2020

The following file was reviewed.

File 5	Evidence Package - Tasks 8 9 10 and 11
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Evidence was provided to support milestone.

Milestone #10: Completion verified.

Milestone 11: ACE Substation Engineering and Drafting and Meter Services to establish a cross departmental team to determine process for involving Meter Services department during substation design. Meter Services Dept also to be added to Substation One-Line Distribution List.

Proposed Completion Date: 8/28/2020

Actual Completion Date: 8/21/2020

The following file was reviewed.

File 5	Evidence Package - Tasks 8 9 10 and 11
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Evidence was provided to support milestone.

Milestone #11: Completion verified.

Milestone 12: Prepare and submit disclosure of additional discrepancies for completed Facility reviews to ReliabilityFirst and identify overall progress of Facility reviews. Identify corrected discrepancies and provide evidence of correction.

Proposed Completion Date: 9/30/2020

Actual Completion Date: 9/30/2020

The following file was reviewed.

File 6	Evidence Package - Task 12
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Evidence was provided to support milestone.



Milestone #12: Completion verified.

Milestone 13: To establish a high-level Management Model process document to describe the relationship between Exelon Utility performing teams and EU Transmission teams within the transmission equipment and Facility rating process. This document should specifically refer to the transmission equipment and Facility rating process used at each of the Exelon Utilities including ACE, DPL, and Pepco.

Proposed Completion Date: 10/30/2020

Actual Completion Date: 10/30/2020

The following file was reviewed.

File 7	Evidence Package - Tasks 13, 14a, 14b, 15, and 16
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Evidence was provided to support milestone.

Milestone #13: Completion verified:

Milestone 14a: Develop an EU Transmission Reliability Planning management model procedure that describes the steps performed by Transmission Reliability Planning for PHI's transmission equipment and facility rating process. The procedure should include details on Exelon Utilities and EU Transmission roles & responsibilities for BES ratings updates and communications between Rating Engineer, Transmission Standards and Equipment Engineering and Transmission System Operations.

Proposed Completion Date: 10/30/2020

Actual Completion Date: 10/30/2020

The following file was reviewed.

File 7	Evidence Package - Tasks 13, 14a, 14b, 15, and 16
--------	---



Evidence was provided to support milestone.

Milestone #14a: Completion verified.

Milestone 14b: Develop an EU EMS Ratings Update management model procedure that describes the steps performed by EU TSO EMS Support Group to maintain new and existing equipment and Facility ratings related to PHI's new EMS.

Proposed Completion Date: 10/30/2020

Actual Completion Date: 10/22/2020

The following file was reviewed.

File 7	Evidence Package - Tasks 13, 14a, 14b, 15, and 16
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Evidence was provided to support milestone.

Milestone #14b: Completion verified.

Milestone 15: T&S Engineering will revise Pepco Holdings Administrative Procedure, CM-PH-0003, Transmission and Substation Equipment Ratings to refine roles and responsibilities including clearly designating Governance, Oversight, Support and Perform stakeholder requirements. This includes development of a GOSP model that lists work groups in the header and tasks in rows for each phase/step of a project. The GOSP model will indicate the role of each work group for each task at the intersection of the task row and the work group column. Procedure CM-PH-0003 will also identify roles and responsibilities during limiting conditions that may arise after a facility is placed in service. Updates will include: Clear identification of performing groups and the roles and responsibilities for coordinating the equipment rating process with applicable stakeholders; Data management control requirements such as required peer checks at necessary data exchange/recording points in the process; Link the LRE Model and Project Management Procedures to CM-PH-0003, Transmission and Substation Equipment Ratings, and include references to all documents reviewed and maintained under CA 7 to ensure methodology references all other equipment rating documents.



Proposed Completion Date: 10/30/2020

Actual Completion Date: 10/19/2020

The following file was reviewed.

File 7	Evidence Package - Tasks 13, 14a, 14b, 15, and 16
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Evidence was provided to support milestone.

Milestone #15: Completion verified.

Milestone 16: Create a consolidated index within Substation Engineering and Drafting, Aerial and Underground Engineering, and Relay and Protection of equipment ratings methodologies used for rating of equipment within PHI. The index should include annotations for which PHI entity uses the rating method. References to the index documents should be included as reference documents in revisions to CM-PH-0003.

Proposed Completion Date: 10/30/2020

Actual Completion Date: 09/28/2020

The following file was reviewed.

File 7	Evidence Package - Tasks 13, 14a, 14b, 15, and 16
--------	---

Evidence was provided to support milestone.

Milestone #16: Completion verified.



Milestone 17: Utilize the revised CM-PH-0003, Transmission and Substation Equipment Ratings Procedure and the GOSP Model to provide training to relevant stakeholders. This training should at a minimum cover PHI's FAC-008 Compliance Program, PHI's Facility Ratings Methodology, the PHI ratings process, and GOSP with the specific job responsibilities.

Proposed Completion Date: 11/30/2020

Actual Completion Date: 11/30/2020

The following file was reviewed.

File 8	Evidence Package - Tasks 17 and 18
--------	------------------------------------

Evidence was provided to support milestone.

Milestone #17: Completion verified.

Milestone 18: Update PHI Project Management checklist or other necessary PHI Project Management documents to: (1) ensure facility rating is communicated to System Operations prior to energization/in-service; and (2) verify System Ops has entered the correct facility ratings in PHI EMS and PJM EMS. Communicate same to project management performers.

Proposed Completion Date: 11/30/2020

Actual Completion Date: 11/20/2020

The following file was reviewed.

File 8	Evidence Package - Tasks 17 and 18
--------	------------------------------------

Evidence was provided to support milestone.

Milestone #18: Completion verified.



Milestone 19a: Develop Job Aids and conduct training with all performers within each of the respective stakeholder groups. Job Aids must detail specific steps necessary to perform each group's role within the transmission equipment and Facility rating process and instruction on use of any tools needed to perform work. Job Aids should include cross references to CM-PH-0003 and the EU Transmission Reliability Planning procedure.

Proposed Completion Date: 12/15/2020

Actual Completion Date: 12/15/2020

The following file was reviewed.

File 9	Evidence Package - Tasks 19a and 19b
--------	--------------------------------------

Evidence was provided to support milestone.

Milestone #19a: Completion verified.

Milestone 19b: Ensure all members of EU TSO EMS Support Group complete OSI Maintenance Center training, which includes how to maintain Facility Ratings in the new EMS.

Proposed Completion Date: 12/15/2020

Actual Completion Date: 11/30/2020

The following file was reviewed.

File 9	Evidence Package - Tasks 19a and 19b
--------	--------------------------------------

Evidence was provided to support milestone.

Milestone #19b: Completion verified.



Milestone 20: Develop / update Job Aid for how to calculate Code 1 ratings for the PHI transmission system. Distribute Job Aid to Engineers within Transmission Reliability Planning.

Proposed Completion Date: 12/17/2020

Actual Completion Date: 12/15/2020

The following file was reviewed.

File 10	Evidence Package - Tasks 20, 21, 22, and 23
---------	---

Evidence was provided to support milestone.

Milestone #20: Completion verified.

Milestone 21: Develop / update Job Aid for when and how to implement and remove Code 1 ratings for equipment within the ACE/DPL and Pepco Energy Management Systems.

Proposed Completion Date: 12/17/2020

Actual Completion Date: 12/07/2020

The following file was reviewed.

File 10	Evidence Package - Tasks 20, 21, 22, and 23
---------	---

Evidence was provided to support milestone.

Milestone #21: Completion verified.

Milestone 22: Verify all existing Code 1 facility ratings on the PHI system.



Proposed Completion Date: 12/17/2020

Actual Completion Date: 12/15/2020

The following file was reviewed.

File 10	Evidence Package - Tasks 20, 21, 22, and 23
---------	---

Evidence was provided to support milestone.

Milestone #22: Completion verified.

Milestone 23: Form a cross-functional team to create a long-term action plan on use of Code 1 ratings for the PHI transmission system. This plan must address: Procedure updates for when and how to implement and remove Code 1 ratings for equipment within the ACE/DPL and Pepco Energy Management Systems based on the outcome of review of Code 1 ratings at PHI; Training of any personnel involved in the transmission equipment and facility ratings process required to handle Code 1 ratings; Training of transmission operators in the future EU transmission operation control centers on the use of Code 1 ratings within the ACE/DPL and Pepco operational areas; Ensuring that the future EMS has the functionality to manage the execution of Code 1 ratings for relevant PHI transmission system equipment; and If Code 1 ratings will not be used in the future, an alternate strategy to be developed for retirement/phase out.

Proposed Completion Date: 12/17/2020

Actual Completion Date: 12/17/2020

The following file was reviewed.

File 10	Evidence Package - Tasks 20, 21, 22, and 23
---------	---

Evidence was provided to support milestone.

Milestone #23: Completion verified.



Milestone 24: Prepare and submit disclosure of additional discrepancies for completed Facility reviews to ReliabilityFirst and identify overall progress of Facility reviews. Identify corrected discrepancies and provide evidence of correction.

Proposed Completion Date: 12/21/2020

Actual Completion Date: 12/21/2020

The following file was reviewed.

File 11	Evidence Package - Task 24
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Evidence was provided to support milestone.

Milestone #24: Completion verified.

Milestone 25: Develop the implementation plan for use of LOAD facility rating tool in PHI. Implementation should include actions to review and update procedures, train Substation Engineering and Drafting, Transmission Engineering, Protection and Control Engineering, T&S Standards and Equipment Engineering Transmission Reliability Planning, System Operations, Project Management and Meter Services on changes resulting from tool implementation, and validation check for migration of data into LOAD. Consider as part of implementation inclusion of requirement to complete an assigned training program prior to obtaining access to LOAD.

Proposed Completion Date: 2/01/2021

Actual Completion Date: 1/28/2021

The following file was reviewed.

File 12	Evidence Package - Task 25
---------	----------------------------

Evidence was provided to support milestone.



Milestone #25: Completion verified.

Milestone 26: Consolidate ACE, DPL and PEPCO Substation equipment ratings methodologies in one document. Align methodology where possible. Including application of historical methodology. Any differences between regions should be included in the document with explanations. Revision per NERC document guideline every 2 years.

Proposed Completion Date: 2/26/2021

Actual Completion Date: 02/26/2021

The following file was reviewed.

File 13	Evidence Package - Task 26
---------	----------------------------

Evidence was provided to support milestone.

Milestone #26: Completion verified.

Milestone 27: Develop and assign annual LMS based training to provide a detailed overview of PHI transmission equipment and facility rating processes including: FAC-008 NERC standard requirements; Scope of activities that are covered by PHI transmission equipment and facility rating processes including planned and emergency changes; CM-PH-0003 -Transmission and Substation Equipment Ratings and EU Transmission Reliability Planning Procedure; Description of available Job Aids by team and description of equipment rating methodology indexes, and Key roles and responsibilities of each responsible group in the transmission equipment and facility rating processes. The training should be assigned to the following responsible groups: Substation Engineering and Drafting, Transmission Engineering, Protection and Control Engineering, T&S Standards and Equipment Engineering, Transmission Reliability Planning, System Operations, and Meter Services.

Proposed Completion Date: 3/01/2021

Actual Completion Date: 02/26/2021



The following file was reviewed.

File 14	Evidence Package - Task 27
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Evidence was provided to support milestone.

Milestone #27: Completion verified.

Milestone 28: Prepare and submit disclosure of additional discrepancies for completed Facility reviews to ReliabilityFirst and identify overall progress of Facility reviews. Identify corrected discrepancies and provide evidence of correction.

Proposed Completion Date: 3/31/2021

Actual Completion Date: 03/31/2021

The following file was reviewed.

File 15	Evidence Package - Tasks 28 and 29
---------	------------------------------------

Evidence was provided to support milestone.

Milestone #28: Completion verified.

Milestone 29: PHI and EU Transmission Reliability Planning will establish a plan for ACE, DPL, and Pepco to complete remediation for any discrepancies that require additional time and planning to complete.

Proposed Completion Date: 3/31/2021

Actual Completion Date: 03/31/2021



The following file was reviewed.

File 15	Evidence Package - Tasks 28 and 29
---------	------------------------------------

Evidence was provided to support milestone.

Milestone #29: Completion verified.

The Mitigation Plan is hereby verified complete.

A handwritten signature in black ink, appearing to be 'Anthony Jablonski'.

Date: June 21, 2021

Anthony Jablonski
Manager, Risk Analysis & Mitigation
ReliabilityFirst Corporation



Mitigation Plan Verification for RFC2020023214

Potomac Electric Power Company (“Pepco”)

Standard/Requirement: FAC-008-3 R6

NERC Mitigation Plan ID: RFCMIT015136

Date of Completion of Mitigation: March 31, 2021

Description of Issue: [Case File](#)

Evidence Reviewed	
File Name	Description of Evidence
File 1	Evidence Package - Tasks 1 and 2
File 2	Evidence Package - Tasks 3 and 4
File 3	Evidence Package – Task 5
File 4	Evidence Package - Tasks 6 and 7
File 5	Evidence Package - Tasks 8 9 10 and 11
File 6	Evidence Package - Task 12
File 7	Evidence Package - Tasks 13, 14a, 14b, 15, and 16
File 8	Evidence Package - Tasks 17 and 18
File 9	Evidence Package - Tasks 19a and 19b
File 10	Evidence Package - Tasks 20, 21, 22, and 23
File 11	Evidence Package - Task 24
File 12	Evidence Package - Task 25
File 13	Evidence Package - Task 26
File 14	Evidence Package - Task 27
File 15	Evidence Package - Tasks 28 and 29

Verification of Mitigation Plan Completion

Milestone 1: Implement controls to improve data accuracy through a multi-peer check process to parallel the existing process. Various peer checks will be used to validate all equipment or Facility



ratings changes in each group responsible for maintenance of accurate equipment or Facility Ratings. Peer check steps should include documentation of the peer check and the performer. The purpose is to improve controls until PHI's revised process for Facility Ratings is implemented. This interim process will be retired upon the effective date of the revised Facility Ratings process documentation, which will include updates to internal controls.

Proposed Completion Date: 5/15/2020

Actual Completion Date: 05/11/2020

Milestone #1: Completion verified. 05/05/2021

The following file was reviewed.

File 1	Evidence Package - Tasks 1 and 2
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The process plus Email correspondence showing the process was rolled out was provided as evidence.

Milestone 2: Communicate interim peer check process/job aid to validate all equipment or Facility ratings changes to each group responsible for peer checks and obtain key manager acknowledgment of implementation of peer check process.

Proposed Completion Date: 5/15/2020

Actual Completion Date: 5/13/2020

The following file was reviewed.

File 1	Evidence Package - Tasks 1 and 2
--------	----------------------------------

The process plus Email correspondence showing the process was implemented was provided as evidence.

Milestone #2: Completion verified. 05/05/2021



Milestone 3: PHI procedure "PHI-FAC-008-FINAL (Revision 9.0) -Establish and Communicate Facility Ratings" submitted to the Exelon Management Model with notification to Substation Engineering and Drafting, Transmission Engineering, Protection and Control Engineering, T&S Standards and Equipment Engineering, Transmission Reliability Planning, System Operations, and Meter Services leads.

Proposed Completion Date: 6/01/2020

Actual Completion Date: 5/29/2020

The following file was reviewed.

File 2	Evidence Package - Tasks 3 and 4
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Email correspondence and SharePoint screenshots were provided showing the new procedure was created and disseminated.

Milestone #3: Completion verified. 05/07/2021

Milestone 4: Establish a standard repository for relay load limits across PHI, establish notification updates to stakeholders, and migrate all relay load limit data to that standard repository. Identify and establish subscriptions for appropriate recipients of update notifications.

Proposed Completion Date: 6/05/2020

Actual Completion Date: 6/1/2020

The following file was reviewed.

File 2	Evidence Package - Tasks 3 and 4
--------	----------------------------------

Evidence consisting of screenshots and email correspondence were provided showing that the repository was set up and personnel were notified.



Milestone #4: Completion verified. 05/24/2021

Milestone 5: Draft and communicate Technical Bulletin to reinforce expectations to stakeholders who are responsible for the Transmission equipment and facility ratings process. The bulletin will review the responsibilities of each stakeholder group. The following stakeholder groups will be addressed: Area Maintenance Engineering Team (T&S), Business Planning & Support (T&S), Meter Services, Operations & Control Center, Project & Construction Management, Protection & Control Engineering (T&S), Standards & Equipment Engineering (T&S), Substation Construction, Maintenance, and Relay (T&S), Substation Engineering & Drafting, Transmission Engineering-Overhead & Underground (T&S), Transmission Reliability Planning.

Proposed Completion Date: 6/15/2020

Actual Completion Date: 6/15/2020

The following file was reviewed.

File 3	Evidence Package – Task 5
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Evidence was provided to support milestone.

Milestone #5: Completion verified. 05/24/2021

Milestone 6: Establish a compliance monitoring plan in conjunction with PHI FAC-008 Standard Owners to evaluate PHI facility rating program implementation accuracy and effectiveness of internal controls. Plan should address periodic review of methodology and associated FAC-008 processes including supporting documentation for equipment ratings, periodic field verification sampling, periodic equipment surveys, and sampling of end-to-end equipment and facility rating process. Plan should address actions by SMEs, FAC-008 Standard Owners, and PHI NERC Compliance. Plan should leverage tracking tools action item(s) to assign action items to the FAC-008 Standard Owner/SMEs, PHI compliance, or other key stakeholders.

Proposed Completion Date: 6/30/2020

Actual Completion Date: 6/30/2020

The following file was reviewed.

File 4	Evidence Package - Tasks 6 and 7
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Evidence was provided to support milestone.

Milestone #6: Completion verified. 5/24/2021

Milestone 7: Prepare and submit disclosure of additional discrepancies for completed Facility reviews to ReliabilityFirst and identify overall progress of Facility reviews. Identify corrected discrepancies and provide evidence of correction.

Proposed Completion Date: 6/30/2020

Actual Completion Date: 6/30/2020

The following file was reviewed.

File 4	Evidence Package - Tasks 6 and 7
--------	----------------------------------

Evidence was provided to support milestone.

Milestone #7: Completion verified: 5/24/2021

Milestone 8: Substation Engineering and Drafting and Meter Services to establish a cross departmental team to determine process for involving Meter Services department during substation design. Meter Services Dept also to be added to Substation One-Line Distribution List.

Proposed Completion Date: 8/28/2020

Actual Completion Date: 8/24/2020

The following file was reviewed.

File 5	Evidence Package - Tasks 8 9 10 and 11
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Evidence was provided to support milestone.



Milestone #8: Completion verified. 5/24/2021

Milestone 9: PEPCO Substation Engineering and Drafting and Meter Services to establish a cross departmental team to determine process for involving Meter Services department during substation design. Meter Services Dept also to be added to Substation One-Line Distribution List.

Proposed Completion Date: 8/28/2020

Actual Completion Date: 8/24/2020

The following file was reviewed.

File 5	Evidence Package - Tasks 8 9 10 and 11
--------	--

Evidence was provided to support milestone.

Milestone #9: Completion verified. 5/24/2021

Milestone 10: DPL Substation Engineering and Drafting and Meter Services to establish a cross departmental team to determine process for involving Meter Services department during substation design. Meter Services Dept also to be added to Substation One-Line Distribution List.

Proposed Completion Date: 8/28/2020

Actual Completion Date: 8/19/2020

The following file was reviewed.

File 5	Evidence Package - Tasks 8 9 10 and 11
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Evidence was provided to support milestone.

Milestone #10: Completion verified. 5/24/2021

Milestone 11: ACE Substation Engineering and Drafting and Meter Services to establish a cross departmental team to determine process for involving Meter Services department during substation design. Meter Services Dept also to be added to Substation One-Line Distribution List.



Proposed Completion Date: 8/28/2020

Actual Completion Date: 8/21/2020

The following file was reviewed.

File 5	Evidence Package - Tasks 8 9 10 and 11
--------	--

Evidence was provided to support milestone.

Milestone #11: Completion verified. 5/24/2021

Milestone 12: Prepare and submit disclosure of additional discrepancies for completed Facility reviews to ReliabilityFirst and identify overall progress of Facility reviews. Identify corrected discrepancies and provide evidence of correction.

Proposed Completion Date: 9/30/2020

Actual Completion Date: 9/30/2020

The following file was reviewed.

File 6	Evidence Package - Task 12
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Evidence was provided to support milestone.

Milestone #12: Completion verified. 5/25/2021

Milestone 13: To establish a high-level Management Model process document to describe the relationship between Exelon Utility performing teams and EU Transmission teams within the transmission equipment and Facility rating process. This document should specifically refer to the transmission equipment and Facility rating process used at each of the Exelon Utilities including ACE, DPL, and Pepco.

Proposed Completion Date: 10/30/2020

Actual Completion Date: 10/30/2020



The following file was reviewed.

File 7	Evidence Package - Tasks 13, 14a, 14b, 15, and 16
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Evidence was provided to support milestone.

Milestone #13: Completion verified: 05/25/2021

Milestone 14a: Develop an EU Transmission Reliability Planning management model procedure that describes the steps performed by Transmission Reliability Planning for PHI's transmission equipment and facility rating process. The procedure should include details on Exelon Utilities and EU Transmission roles & responsibilities for BES ratings updates and communications between Rating Engineer, Transmission Standards and Equipment Engineering and Transmission System Operations.

Proposed Completion Date: 10/30/2020

Actual Completion Date: 10/30/2020

The following file was reviewed.

File 7	Evidence Package - Tasks 13, 14a, 14b, 15, and 16
--------	---

Evidence was provided to support milestone.

Milestone #14a: Completion verified. 05/25/2021

Milestone 14b: Develop an EU EMS Ratings Update management model procedure that describes the steps performed by EU TSO EMS Support Group to maintain new and existing equipment and Facility ratings related to PHI's new EMS.

Proposed Completion Date: 10/30/2020

Actual Completion Date: 10/22/2020

The following file was reviewed.

File 7	Evidence Package - Tasks 13, 14a, 14b, 15, and 16
--------	---



Evidence was provided to support milestone.

Milestone #14b: Completion verified. 06/10/2021

Milestone 15: T&S Engineering will revise Pepco Holdings Administrative Procedure, CM-PH-0003, Transmission and Substation Equipment Ratings to refine roles and responsibilities including clearly designating Governance, Oversight, Support and Perform stakeholder requirements. This includes development of a GOSP model that lists work groups in the header and tasks in rows for each phase/step of a project. The GOSP model will indicate the role of each work group for each task at the intersection of the task row and the work group column. Procedure CM-PH-0003 will also identify roles and responsibilities during limiting conditions that may arise after a facility is placed in service. Updates will include: Clear identification of performing groups and the roles and responsibilities for coordinating the equipment rating process with applicable stakeholders; Data management control requirements such as required peer checks at necessary data exchange/recording points in the process; Link the LRE Model and Project Management Procedures to CM-PH-0003, Transmission and Substation Equipment Ratings, and include references to all documents reviewed and maintained under CA 7 to ensure methodology references all other equipment rating documents.

Proposed Completion Date: 10/30/2020

Actual Completion Date: 10/19/2020

The following file was reviewed.

File 7	Evidence Package - Tasks 13, 14a, 14b, 15, and 16
--------	---

Evidence was provided to support milestone.

Milestone #15: Completion verified. 06/10/2021

Milestone 16: Create a consolidated index within Substation Engineering and Drafting, Aerial and Underground Engineering, and Relay and Protection of equipment ratings methodologies used



for rating of equipment within PHI. The index should include annotations for which PHI entity uses the rating method. References to the index documents should be included as reference documents in revisions to CM-PH-0003.

Proposed Completion Date: 10/30/2020

Actual Completion Date: 09/28/2020

The following file was reviewed.

File 7	Evidence Package - Tasks 13, 14a, 14b, 15, and 16
--------	---

Evidence was provided to support milestone.

Milestone #16: Completion verified. 06/10/2021

Milestone 17: Utilize the revised CM-PH-0003, Transmission and Substation Equipment Ratings Procedure and the GOSP Model to provide training to relevant stakeholders. This training should at a minimum cover PHI's FAC-008 Compliance Program, PHI's Facility Ratings Methodology, the PHI ratings process, and GOSP with the specific job responsibilities.

Proposed Completion Date: 11/30/2020

Actual Completion Date: 11/30/2020

The following file was reviewed.

File 8	Evidence Package - Tasks 17 and 18
--------	------------------------------------

Evidence was provided to support milestone.

Milestone #17: Completion verified. 06/10/2021



Milestone 18: Update PHI Project Management checklist or other necessary PHI Project Management documents to: (1) ensure facility rating is communicated to System Operations prior to energization/in-service; and (2) verify System Ops has entered the correct facility ratings in PHI EMS and PJM EMS. Communicate same to project management performers.

Proposed Completion Date: 11/30/2020

Actual Completion Date: 11/20/2020

The following file was reviewed.

File 8	Evidence Package - Tasks 17 and 18
--------	------------------------------------

Evidence was provided to support milestone.

Milestone #18: Completion verified. 06/10/2021

Milestone 19a: Develop Job Aids and conduct training with all performers within each of the respective stakeholder groups. Job Aids must detail specific steps necessary to perform each group's role within the transmission equipment and Facility rating process and instruction on use of any tools needed to perform work. Job Aids should include cross references to CM-PH-0003 and the EU Transmission Reliability Planning procedure.

Proposed Completion Date: 12/15/2020

Actual Completion Date: 12/15/2020

The following file was reviewed.

File 9	Evidence Package - Tasks 19a and 19b
--------	--------------------------------------

Evidence was provided to support milestone.

Milestone #19a: Completion verified. 06/14/2021



Milestone 19b: Ensure all members of EU TSO EMS Support Group complete OSI Maintenance Center training, which includes how to maintain Facility Ratings in the new EMS.

Proposed Completion Date: 12/15/2020

Actual Completion Date: 11/30/2020

The following file was reviewed.

File 9	Evidence Package - Tasks 19a and 19b
--------	--------------------------------------

Evidence was provided to support milestone.

Milestone #19b: Completion verified. 06/14/2021

Milestone 20: Develop / update Job Aid for how to calculate Code 1 ratings for the PHI transmission system. Distribute Job Aid to Engineers within Transmission Reliability Planning.

Proposed Completion Date: 12/17/2020

Actual Completion Date: 12/15/2020

The following file was reviewed.

File 10	Evidence Package - Tasks 20, 21, 22, and 23
---------	---

Evidence was provided to support milestone.

Milestone #20: Completion verified. 06/14/2021



Milestone 21: Develop / update Job Aid for when and how to implement and remove Code 1 ratings for equipment within the ACE/DPL and Pepco Energy Management Systems.

Proposed Completion Date: 12/17/2020

Actual Completion Date: 12/07/2020

The following file was reviewed.

File 10	Evidence Package - Tasks 20, 21, 22, and 23
---------	---

Evidence was provided to support milestone.

Milestone #21: Completion verified. 06/14/2021

Milestone 22: Verify all existing Code 1 facility ratings on the PHI system.

Proposed Completion Date: 12/17/2020

Actual Completion Date: 12/15/2020

The following file was reviewed.

File 10	Evidence Package - Tasks 20, 21, 22, and 23
---------	---

Evidence was provided to support milestone.

Milestone #22: Completion verified. 06/14/2021



Milestone 23: Form a cross-functional team to create a long-term action plan on use of Code 1 ratings for the PHI transmission system. This plan must address: Procedure updates for when and how to implement and remove Code 1 ratings for equipment within the ACE/DPL and Pepco Energy Management Systems based on the outcome of review of Code 1 ratings at PHI; Training of any personnel involved in the transmission equipment and facility ratings process required to handle Code 1 ratings; Training of transmission operators in the future EU transmission operation control centers on the use of Code 1 ratings within the ACE/DPL and Pepco operational areas; Ensuring that the future EMS has the functionality to manage the execution of Code 1 ratings for relevant PHI transmission system equipment; and If Code 1 ratings will not be used in the future, an alternate strategy to be developed for retirement/phase out.

Proposed Completion Date: 12/17/2020

Actual Completion Date: 12/17/2020

The following file was reviewed.

File 10	Evidence Package - Tasks 20, 21, 22, and 23
---------	---

Evidence was provided to support milestone. 06/14/2021

Milestone #23: Completion verified.

Milestone 24: Prepare and submit disclosure of additional discrepancies for completed Facility reviews to ReliabilityFirst and identify overall progress of Facility reviews. Identify corrected discrepancies and provide evidence of correction.

Proposed Completion Date: 12/21/2020

Actual Completion Date: 12/21/2020

The following file was reviewed.

File 11	Evidence Package - Task 24
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Evidence was provided to support milestone.



Milestone #24: Completion verified.

Milestone 25: Develop the implementation plan for use of LOAD facility rating tool in PHI. Implementation should include actions to review and update procedures, train Substation Engineering and Drafting, Transmission Engineering, Protection and Control Engineering, T&S Standards and Equipment Engineering Transmission Reliability Planning, System Operations, Project Management and Meter Services on changes resulting from tool implementation, and validation check for migration of data into LOAD. Consider as part of implementation inclusion of requirement to complete an assigned training program prior to obtaining access to LOAD.

Proposed Completion Date: 2/01/2021

Actual Completion Date: 1/28/2021

The following file was reviewed.

File 12	Evidence Package - Task 25
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Evidence was provided to support milestone.

Milestone #25: Completion verified. 06/18/2021

Milestone 26: Consolidate ACE, DPL and PEPCO Substation equipment ratings methodologies in one document. Align methodology where possible. Including application of historical methodology. Any differences between regions should be included in the document with explanations. Revision per NERC document guideline every 2 years.

Proposed Completion Date: 2/26/2021

Actual Completion Date: 02/26/2021



The following file was reviewed.

File 13	Evidence Package - Task 26
---------	----------------------------

Evidence was provided to support milestone.

Milestone #26: Completion verified. 06/18/2021

Milestone 27: Develop and assign annual LMS based training to provide a detailed overview of PHI transmission equipment and facility rating processes including: FAC-008 NERC standard requirements; Scope of activities that are covered by PHI transmission equipment and facility rating processes including planned and emergency changes; CM-PH-0003 -Transmission and Substation Equipment Ratings and EU Transmission Reliability Planning Procedure; Description of available Job Aids by team and description of equipment rating methodology indexes, and Key roles and responsibilities of each responsible group in the transmission equipment and facility rating processes. The training should be assigned to the following responsible groups: Substation Engineering and Drafting, Transmission Engineering, Protection and Control Engineering, T&S Standards and Equipment Engineering, Transmission Reliability Planning, System Operations, and Meter Services.

Proposed Completion Date: 3/01/2021

Actual Completion Date: 02/26/2021

The following file was reviewed.

File 14	Evidence Package - Task 27
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Evidence was provided to support milestone.



Milestone #27: Completion verified. 06/18/2021

Milestone 28: Prepare and submit disclosure of additional discrepancies for completed Facility reviews to ReliabilityFirst and identify overall progress of Facility reviews. Identify corrected discrepancies and provide evidence of correction.

Proposed Completion Date: 3/31/2021

Actual Completion Date: 03/31/2021

The following file was reviewed.

File 15	Evidence Package - Tasks 28 and 29
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Evidence was provided to support milestone.

Milestone #28: Completion verified. 06/18/2021

Milestone 29: PHI and EU Transmission Reliability Planning will establish a plan for ACE, DPL, and Pepco to complete remediation for any discrepancies that require additional time and planning to complete.

Proposed Completion Date: 3/31/2021

Actual Completion Date: 03/31/2021

The following file was reviewed.

File 15	Evidence Package - Tasks 28 and 29
---------	------------------------------------

Evidence was provided to support milestone.



Milestone #29: Completion verified. 06/18/2021

The Mitigation Plan is hereby verified complete.

A handwritten signature in black ink, appearing to be 'Anthony Jablonski'.

Date: June 21, 2021

Anthony Jablonski
Manager, Risk Analysis & Mitigation
ReliabilityFirst Corporation

Self Report

Entity Name: Baltimore Gas and Electric Company (BGE)

NERC ID: NCR00689

Standard: FAC-008-3

Requirement: FAC-008-3 R3. **Changed to FAC-009-1 R1**

Date Submitted: July 07, 2020

Has this violation previously No
been reported or discovered?:

Entity Information:

Joint Registration
Organization (JRO) ID:

Coordinated Functional
Registration (CFR) ID:

Contact Name: Ruth A. Miller

Contact Phone: 4104707314

Contact Email: ruth.a.miller@bge.com

Violation:

Violation Start Date: April 20, 2020 **Changed to June 18, 2007**

End/Expected End Date:

Reliability Functions: Transmission Owner (TO)

Is Possible Violation still Yes
occurring?:

Number of Instances: 1

Has this Possible Violation No
been reported to other
Regions?:

Which Regions:

Date Reported to Regions:

Detailed Description and Cause of Possible Violation: On April 15, 2020, Atlantic City Electric Company (ACE), Delmarva Power & Light Company (DPL), and Potomac Electric Power Company (Pepco) (together, the PHI Utilities or PHI) submitted self-reports to ReliabilityFirst ("RF") disclosing potential discrepancies related to FAC-009/FAC-008 compliance at multiple PHI Facilities. The potential discrepancies were identified during extent of condition reviews following the discovery of the issue reported in Exelon Self-Log #92. ACE, DPL, and Pepco have been assigned Open Action Enforcement numbers RFC2020023212, RFC2020023213, and RFC2020023214 respectively by RF for processing the extent of condition findings.

Baltimore Gas and Electric Company (BGE), Commonwealth Edison Company (ComEd), and PECO Energy Company (PECO) initiated separate extent of condition reviews as a result of the issues identified at PHI. BGE, PECO, and ComEd have each performed an initial review of a sample of Facilities using the NERC Sampling Methodology for FAC-008. Each entity is processing the results of the reviews and performing analysis of the causes. Each have determined that potential discrepancies have been identified that require reporting to RF. BGE, PECO, and ComEd will include the details of these issues in the Mitigation Plan once a full analysis is completed. As part of the corrective actions, each will also determine the schedule and scope of extent of condition reviews for each entities' Facilities and Facility Ratings. The Mitigation Plans will be specific to each of BGE, ComEd, and PECO based on the specific facts and circumstances and will include start and end dates for the potential issues.

Self Report

The purpose of this initial submission is to initiate the matters at RF. Future submissions will be coordinated through RF Enforcement.

Mitigating Activities:

Description of Mitigating Activities and Preventative Measure: Mitigation activities will be included in the Mitigation Plan.
Date Mitigating Activities Completed:

Impact and Risk Assessment:

Potential Impact to BPS: Minimal
Actual Impact to BPS: Minimal

Description of Potential and Actual Impact to BPS: A risk assessment will be included in the Mitigation Plan.

Risk Assessment of Impact to BPS: A risk assessment will be included in the Mitigation Plan.

Additional Entity Comments: None

Additional Comments		
From	Comment	User Name
No Comments		

Additional Documents			
From	Document Name	Description	Size in Bytes
No Documents			

Self Report

Entity Name: Commonwealth Edison Company (ComEd)

NERC ID: NCR08013

Standard: FAC-008-3

Requirement: FAC-008-3 R3.

Changed to FAC-009-1 R1

Date Submitted: July 06, 2020

Has this violation previously No
been reported or discovered?:

Entity Information:

Joint Registration
Organization (JRO) ID:

Coordinated Functional
Registration (CFR) ID:

Contact Name: David Carlson

Contact Phone: 6304372173

Contact Email: david.carlson@comed.com

Violation:

Violation Start Date: May 05, 2020 **Changed to June 18, 2007**

End/Expected End Date:

Reliability Functions: Transmission Owner (TO)

Is Possible Violation still Yes
occurring?:

Number of Instances: 1

Has this Possible Violation No
been reported to other
Regions?:

Which Regions:

Date Reported to Regions:

Detailed Description and Cause of Possible Violation: On April 15, 2020, Atlantic City Electric Company (ACE), Delmarva Power & Light Company (DPL), and Potomac Electric Power Company (Pepco) (together, the PHI Utilities or PHI) submitted self-reports to ReliabilityFirst ("RF") disclosing potential discrepancies related to FAC-009/FAC-008 compliance at multiple PHI Facilities. The potential discrepancies were identified during extent of condition reviews following the discovery of the issue reported in Exelon Self-Log #92. ACE, DPL, and Pepco have been assigned Open Action Enforcement numbers RFC2020023212, RFC2020023213, and RFC2020023214 respectively by RF for processing the extent of condition findings.

Baltimore Gas and Electric Company (BGE), Commonwealth Edison Company (ComEd), and PECO Energy Company (PECO) initiated separate extent of condition reviews as a result of the issues identified at PHI. BGE, PECO, and ComEd have each performed an initial review of a sample of Facilities using the NERC Sampling Methodology for FAC-008. Each entity is processing the results of the reviews and performing analysis of the causes. Each have determined that potential discrepancies have been identified that require reporting to RF. BGE, PECO, and ComEd will include the details of these issues in the Mitigation Plan once a full analysis is completed. As part of the corrective actions, each will also determine the schedule and scope of extent of condition reviews for each entities' Facilities and Facility Ratings. The Mitigation Plans will be specific to each of BGE, ComEd, and PECO based on the specific facts and circumstances and will include start and end dates for the potential issues.

Self Report

The purpose of this initial submission is to initiate the matters at RF. Future submissions will be coordinated through RF Enforcement.

Mitigating Activities:

Description of Mitigating Activities and Preventative Measure: Mitigation activities will be included in the Mitigation Plan.
 Date Mitigating Activities Completed:

Impact and Risk Assessment:

Potential Impact to BPS: Minimal
 Actual Impact to BPS: Minimal
 Description of Potential and Actual Impact to BPS: A risk assessment will be included in the Mitigation Plan.
 Risk Assessment of Impact to BPS: A risk assessment will be included in the Mitigation Plan.
 Additional Entity Comments: A risk assessment will be included in the Mitigation Plan.

Additional Comments		
From	Comment	User Name
No Comments		

Additional Documents			
From	Document Name	Description	Size in Bytes
No Documents			

Self Report

Entity Name: PECO Energy Company (PECO)

NERC ID: NCR08026

Standard: FAC-008-3

Requirement: FAC-008-3 R3. **Changed to FAC-009-1 R1**

Date Submitted: July 07, 2020

Has this violation previously No
been reported or discovered?:

Entity Information:

Joint Registration
Organization (JRO) ID:

Coordinated Functional
Registration (CFR) ID:

Contact Name: Michelle Ross

Contact Phone: 2679921200

Contact Email: michelle.ross@exeloncorp.com

Violation:

Violation Start Date: April 24, 2020 **Changed to June 27, 2007**

End/Expected End Date:

Reliability Functions: Transmission Owner (TO)

Is Possible Violation still Yes
occurring?:

Number of Instances: 1

Has this Possible Violation No
been reported to other
Regions?:

Which Regions:

Date Reported to Regions:

Detailed Description and Cause of Possible Violation: On April 15, 2020, Atlantic City Electric Company (ACE), Delmarva Power & Light Company (DPL), and Potomac Electric Power Company (Pepco) (together, the PHI Utilities or PHI) submitted self-reports to ReliabilityFirst ("RF") disclosing potential discrepancies related to FAC-009/FAC-008 compliance at multiple PHI Facilities. The potential discrepancies were identified during extent of condition reviews following the discovery of the issue reported in Exelon Self-Log #92. ACE, DPL, and Pepco have been assigned Open Action Enforcement numbers RFC2020023212, RFC2020023213, and RFC2020023214 respectively by RF for processing the extent of condition findings.

Baltimore Gas and Electric Company (BGE), Commonwealth Edison Company (ComEd), and PECO Energy Company (PECO) initiated separate extent of condition reviews as a result of the issues identified at PHI. BGE, PECO, and ComEd have each performed an initial review of a sample of Facilities using the NERC Sampling Methodology for FAC-008. Each entity is processing the results of the reviews and performing analysis of the causes. Each have determined that potential discrepancies have been identified that require reporting to RF. BGE, PECO, and ComEd will include the details of these issues in the Mitigation Plan once a full analysis is completed. As part of the corrective actions, each will also determine the schedule and scope of extent of condition reviews for each entities' Facilities and Facility Ratings. The Mitigation Plans will be specific to each of BGE, ComEd, and PECO based on the specific facts and circumstances and will include start and end dates for the potential issues.

Self Report

The purpose of this initial submission is to initiate the matters at RF. Future submissions will be coordinated through RF Enforcement.

Mitigating Activities:

Description of Mitigating Activities and Preventative Measure: Mitigation activities will be included in the Mitigation Plan.
 Date Mitigating Activities Completed:

Impact and Risk Assessment:

Potential Impact to BPS: Minimal
 Actual Impact to BPS: Minimal
 Description of Potential and Actual Impact to BPS: A risk assessment will be included in the Mitigation Plan.
 Risk Assessment of Impact to BPS: A risk assessment will be included in the Mitigation Plan.
 Additional Entity Comments: None at this time

Additional Comments		
From	Comment	User Name
No Comments		

Additional Documents			
From	Document Name	Description	Size in Bytes
No Documents			

Mitigation Plan

Mitigation Plan Summary

Registered Entity: Baltimore Gas and Electric Company

Mitigation Plan Code:

Mitigation Plan Version: 1

NERC Violation ID	Requirement	Violation Validated On
RFC2020023644	FAC-008-3 R3.	

Mitigation Plan Submitted On: October 15, 2020

Mitigation Plan Accepted On:

Mitigation Plan Proposed Completion Date: December 31, 2021

Actual Completion Date of Mitigation Plan:

Mitigation Plan Certified Complete by BGE On:

Mitigation Plan Completion Verified by RF On:

Mitigation Plan Completed? (Yes/No): No

Compliance Notices

Section 6.2 of the NERC CMEP sets forth the information that must be included in a Mitigation Plan. The Mitigation Plan must include:

- (1) The Registered Entity's point of contact for the Mitigation Plan, who shall be a person (i) responsible for filing the Mitigation Plan, (ii) technically knowledgeable regarding the Mitigation Plan, and (iii) authorized and competent to respond to questions regarding the status of the Mitigation Plan. This person may be the Registered Entity's point of contact described in Section B.
 - (2) The Alleged or Confirmed Violation(s) of Reliability Standard(s) the Mitigation Plan will correct.
 - (3) The cause of the Alleged or Confirmed Violation(s).
 - (4) The Registered Entity's action plan to correct the Alleged or Confirmed Violation(s).
 - (5) The Registered Entity's action plan to prevent recurrence of the Alleged or Confirmed violation(s).
 - (6) The anticipated impact of the Mitigation Plan on the bulk power system reliability and an action plan to mitigate any increased risk to the reliability of the bulk power-system while the Mitigation Plan is being implemented.
 - (7) A timetable for completion of the Mitigation Plan including the completion date by which the Mitigation Plan will be fully implemented and the Alleged or Confirmed Violation(s) corrected.
 - (8) Implementation milestones no more than three (3) months apart for Mitigation Plans with expected completion dates more than three (3) months from the date of submission. Additional violations could be determined or recommended to the applicable governmental authorities for not completing work associated with accepted milestones.
 - (9) Any other information deemed necessary or appropriate.
 - (10) The Mitigation Plan shall be signed by an officer, employee, attorney or other authorized representative of the Registered Entity, which if applicable, shall be the person that signed the Self Certification or Self Reporting submittals.
 - (11) This submittal form may be used to provide a required Mitigation Plan for review and approval by regional entity(ies) and NERC.
- The Mitigation Plan shall be submitted to the regional entity(ies) and NERC as confidential information in accordance with Section 1500 of the NERC Rules of Procedure.
 - This Mitigation Plan form may be used to address one or more related alleged or confirmed violations of one Reliability Standard. A separate mitigation plan is required to address alleged or confirmed violations with respect to each additional Reliability Standard, as applicable.
 - If the Mitigation Plan is accepted by regional entity(ies) and approved by NERC, a copy of this Mitigation Plan will be provided to the Federal Energy Regulatory Commission or filed with the applicable governmental authorities for approval in Canada.
 - Regional Entity(ies) or NERC may reject Mitigation Plans that they determine to be incomplete or inadequate.
 - Remedial action directives also may be issued as necessary to ensure reliability of the bulk power system.
 - The user has read and accepts the conditions set forth in these Compliance Notices.

Entity Information

Identify your organization:

Entity Name: Baltimore Gas and Electric Company

NERC Compliance Registry ID: NCR00689

Address: 2 Center Plaza, 110 W. Fayette St
Baltimore MD 21201

Identify the individual in your organization who will serve as the Contact to the Regional Entity regarding this Mitigation Plan. This person shall be technically knowledgeable regarding this Mitigation Plan and authorized to respond to Regional Entity regarding this Mitigation Plan:

Name: Ruth A. Miller

Title: Manager BGE NERC Compliance

Email: ruth.a.miller@bge.com

Phone: 410-470-7314

Violation(s)

This Mitigation Plan is associated with the following violation(s) of the reliability standard listed below:

Violation ID	Date of Violation	Requirement
Requirement Description		
RFC2020023644	04/20/2020	FAC-008-3 R3.
Each Transmission Owner shall have a documented methodology for determining Facility Ratings (Facility Ratings methodology) of its solely and jointly owned Facilities (except for those generating unit Facilities addressed in R1 and R2) that contains all of the following: [See standard for methodology requirements]		

Brief summary including the cause of the violation(s) and mechanism in which it was identified:

On April 15, 2020, Atlantic City Electric Company (ACE), Delmarva Power & Light Company (DPL), and Potomac Electric Power Company (Pepco) (together, the PHI Utilities or PHI) submitted self-reports to ReliabilityFirst ("RF") disclosing potential discrepancies related to FAC-009/FAC-008 compliance at multiple PHI Facilities. The potential discrepancies were identified during extent of condition reviews following the discovery of the issue reported in Exelon Self-Log #92. ACE, DPL, and Pepco have been assigned Open Action Enforcement numbers RFC2020023212, RFC2020023213, and RFC2020023214 respectively by RF for processing the extent of condition findings.

Baltimore Gas and Electric Company (BGE), Commonwealth Edison Company (ComEd), and PECO Energy Company (PECO) initiated separate extent of condition reviews as a result of the issues identified at PHI. BGE, PECO, and ComEd have each performed reviews of a sample of Facilities using the NERC Sampling Methodology for FAC-008.

Based on the ERO Sampling Handbook, BGE selected 30 Facilities from the total BES Facility count of 304 Facilities. The 30 Facilities were selected for their range of voltage, latest revision, equipment types, age of substations, geographical diversity, design, and risk to BES. This selection provides a realistic representative sample of BGE Facilities for this initial review.

For the targeted Facilities, the BGE team conducted an end to end review. This review included field verifications, source document verification, equipment rating calculations, ratings database analysis, consistency verification of BGE EMS ratings, PJM's EMS ratings of BGE Facilities, and Transmission Planning models, and consistency verification with BGE's ratings methodology. As a result of the review and analysis, the team identified three (3) potential discrepancies impacting overall Facility Ratings, which are summarized below.

The three (3) potential discrepancies identified were all related to inconsistencies with the implementation of BGE's ratings methodology, specifically, not appropriately documenting engineering justification of a more conservative rating. The three (3) potential discrepancies were related to three (3) Facilities and could have resulted in an increase to overall Facility Ratings. The three (3) Facilities are 115 kV transmission underground cable Facilities. Two (2) Facilities had a higher ambient ground temperature applied than the buried depth specified per the BGE Underground Transmission Design Handbook. The remaining Facility had a more conservative load factor applied than the typical range. As BGE conducts its Extent of Condition Review of the remaining Transmission System Facilities, this issue, where Facilities were rated more conservatively, will be examined and any discrepancies reported.

The primary cause identified related to the potential discrepancies of the three (3) underground transmission cables were human error as described in more detail below.

-The Transmission Underground Engineer, during the original calculation of the cable rating, likely applied a conservative judgement by using a higher ambient ground temperature than the BGE standard recommends. This has the direct effect of creating an element rating that is lower than possible, based on the standard. It is assumed that this calculation was made intentionally to make considerations for factors that the cable rating calculator cannot account for, however there is not sufficient documentation on file.

ReliabilityFirst

Confidential Non-Public Information

October 16, 2020

- The Transmission Underground Engineer, during the original calculation of the cable rating, likely applied a conservative judgement by using a higher load factor than the BGE standard range. This has the direct effect of creating an element rating that is lower than possible, based on the standard. It is thought that this calculation was made intentionally to make considerations for factors that the cable rating calculator cannot account for, however there is not sufficient documentation on file.

Specific details of the potential discrepancies identified for the initial sample set of 30 Facilities will be included in Milestone 18 along with additional potential discrepancies that led to potential Facility Ratings changes, if any are identified in further Extent of Condition work.

BGE's Extent of Condition review of the sampled Facilities identified no inconsistencies between BGE EMS ratings, PJM's EMS ratings of BGE Facilities, and Transmission Planning models.

Relevant information regarding the identification of the violation(s):

N/A

ReliabilityFirst

Confidential Non-Public Information

October 16, 2020

Plan Details

Identify and describe the action plan, including specific tasks and actions that your organization is proposing to undertake, or which it undertook if this Mitigation Plan has been completed, to correct the violation(s) identified above in Section C.1 of this form:

See table below.

Provide the timetable for completion of the Mitigation Plan, including the completion date by which the Mitigation Plan will be fully implemented and the violations associated with this Mitigation Plan are corrected:

Proposed Completion date of Mitigation Plan: December 31, 2021

Milestone Activities, with completion dates, that your organization is proposing for this Mitigation Plan:

Milestone Activity	Description	*Proposed Completion Date (Shall not be greater than 3 months apart)	Actual Completion Date	Entity Comment on Milestone Completion	Extension Request Pending
Milestone 1	Update EPB-11004 process to require As-Builts completed 30 days after receipt of drawings, as part of the project closeout.	09/15/2020			No
Milestone 2	Develop and distribute job aid for the EMS Support Group (ESG) to review the ratings and impedance comparison mapping (EITK Mapping) quarterly to ensure accurate comparison tool mapping between ratings repositories and new EMS.	10/01/2020			No
Milestone 3	Design a plan to complete the extent of condition (EOC) for facility ratings of the 274 remaining BES Facilities with target completion dates in an action tracking system.	10/30/2020			No
Milestone 4	Develop an EU EMS	10/30/2020			No

Milestone Activity	Description	*Proposed Completion Date (Shall not be greater than 3 months apart)	Actual Completion Date	Entity Comment on Milestone Completion	Extension Request Pending
	Ratings Update management model procedure that describes the steps performed by EU TSO EMS Support Group to maintain new and existing equipment and Facility ratings related to BGE's new EMS.				
Milestone 5	Create a form to submit to vendors to formalize the equipment rating submittal documentation.	11/20/2020			No
Milestone 6	Update BGE Transmission Ratings Methodology to reflect shift in responsibility from OCS to the EU EMS team for submission of Facility Ratings. Communicate change in procedure to required Facility Rating process stakeholders.	11/30/2020			No
Milestone 10	Review all electromechanical relays captured in the spreadsheet database for loadability evidence and ensure data is migrated to the ASPEN loadability tables for each device applied in a per-phase basis. Ensure that the ASPEN loadability tables are accurately	12/04/2020			No

Milestone Activity	Description	*Proposed Completion Date (Shall not be greater than 3 months apart)	Actual Completion Date	Entity Comment on Milestone Completion	Extension Request Pending
	populated for all BES capacitor facilities.				
Milestone 7	Revise the BGE Substation Engineering Ratings Review Documentation to include updating the facility records in LOAD to assure that each component is identified and that source document references are provided in the notes.	12/04/2020			No
Milestone 8	Review current LOAD Ratings Database to identify any potential missing elements from the data migration. Correct any element inventory errors identified.	12/04/2020			No
Milestone 9	Provide an awareness/training session focused on the scope of the JPB-13008 pre-energization PRC/FAC review process to all ASPEN users capable of submitting a setting request.	12/04/2020			No
Milestone 11	Review the Underground Transmission Design Handbook to ensure clarity and accuracy in the application of the standard loss factor.	12/11/2020			No
Milestone 12	Revise the	12/11/2020			No

Milestone Activity	Description	*Proposed Completion Date (Shall not be greater than 3 months apart)	Actual Completion Date	Entity Comment on Milestone Completion	Extension Request Pending
	Underground Transmission Design Handbook to provide that engineering judgement can be used to select a higher ambient ground temperature to ensure a more conservative ampacity rating.				
Milestone 13	Update the QA/QC documentation to include confirming the source data inputs.	12/11/2020			No
Milestone 14	Support OSI Maintenance Center Training for the EU TSO EMS Support Group responsible for maintaining Facility Ratings in the new EMS.	12/15/2020			No
Milestone 15	Review all of the facilities that have not been approved since the original rating spreadsheet	12/18/2020			No
Milestone 16	Review BES Capacitor Facilities to confirm accuracy of document element and Facility ratings	12/18/2020			No
Milestone 17	Work with the LOAD Software vendor to develop a schedule for expansion of the capability of LOAD to do the following: · At the time of Facility Ratings approval, create a snapshot of critical rating parameters values entered in	12/18/2020			No

Milestone Activity	Description	*Proposed Completion Date (Shall not be greater than 3 months apart)	Actual Completion Date	Entity Comment on Milestone Completion	Extension Request Pending
	each elements of the facility · Develop a report for any facility that will allow us to print out for every element in the facility, the ratings standard use to calculate the element ratings, all critical ratings parameter values used in those ratings calculations, and the resulting element ratings.				
Milestone 18	Create a process to request, file, and store vendor specific ratings documentation. Train team members on the new process.	12/18/2020			No
Milestone 19	Prepare and submit disclosure of additional discrepancies for completed Facility reviews to ReliabilityFirst and identify overall progress of Facility reviews. Identify corrected discrepancies and provide evidence of correction.	01/29/2021			No
Milestone 20	Develop the implementation plan for use of BGE's LOAD facility rating tool in the EU Transmission Planning future state. Implementation	02/01/2021			No

Milestone Activity	Description	*Proposed Completion Date (Shall not be greater than 3 months apart)	Actual Completion Date	Entity Comment on Milestone Completion	Extension Request Pending
	should include actions to review and update procedures, train Substation Engineering and Drafting, Transmission Engineering, Protection and Control Engineering, T&S Standards and Equipment Engineering Transmission Reliability Planning, System Operations, Project Management and Meter Services on changes resulting from tool implementation, and validation check for migration of data into LOAD. Consider as part of implementation inclusion of requirement to complete an assigned training program prior to obtaining access to LOAD.				
Milestone 21	Prepare and submit disclosure of additional discrepancies for completed Facility reviews to ReliabilityFirst and identify overall progress of Facility reviews. Identify corrected discrepancies and provide evidence of correction.	04/30/2021			No

Milestone Activity	Description	*Proposed Completion Date (Shall not be greater than 3 months apart)	Actual Completion Date	Entity Comment on Milestone Completion	Extension Request Pending
Milestone 22	Prepare and submit disclosure of additional discrepancies for completed Facility reviews to ReliabilityFirst and identify overall progress of Facility reviews. Identify corrected discrepancies and provide evidence of correction.	07/30/2021			No
Milestone 23	Prepare and submit disclosure of additional discrepancies for completed Facility reviews to ReliabilityFirst and identify overall progress of Facility reviews. Identify corrected discrepancies and provide evidence of correction.	10/29/2021			No
Milestone 24	Utilize new OSI-EMS system feature that provides automated check between BGE EMS to PJM EMS and BGE EMS to BGE Facility Rating system on agreed upon periodicity.	12/31/2021			No

Additional Relevant Information

Reliability Risk

Reliability Risk

While the Mitigation Plan is being implemented, the reliability of the bulk Power System may remain at higher Risk or be otherwise negatively impacted until the plan is successfully completed. To the extent they are known or anticipated : (i) Identify any such risks or impacts, and; (ii) discuss any actions planned or proposed to address these risks or impacts.

Based on the results sample review, BGE views the risk to the Bulk Electric System to be minimal while the mitigation plan is successfully completed.

BGE has not experienced any system related events due to any of the identified potential discrepancies. As mentioned above, BGE did identify three (3) Facilities in which three (3) ratings elements were found to be the limiting factor and were rated more conservatively without appropriate engineering justification documentation. Engineering justification has now been documented to have the Facility Ratings remain the same (as opposed to increasing ratings which could be allowed per the methodology). There were no other discrepancies which impacted overall Facility Ratings.

In addition, BGE improved its internal controls process in recent years to provide quality assurance checks. These controls help to minimize the risk of issues occurring between now and the time the mitigation plan actions are successfully completed. BGE is reviewing these controls for potential improvements as part of their process review, but to date these controls have reduced the potential for errors in the Facility Rating process at BGE.

Prevention

Describe how successful completion of this plan will prevent or minimize the probability further violations of the same or similar reliability standards requirements will occur

The actions included in the mitigation plan improve the BGE Transmission Equipment and Facility Ratings program by implementing additional procedural controls (program and performer level) by adding comprehensive, ongoing training of personnel of the BGE Transmission Equipment and Facility Rating program.

BGE's Mitigation Plan also includes corrective actions which involve process improvements and ratings program improvements which were not based on correcting any particular ratings-related issue. Corrective actions in this category include Milestones 2 and 24 regarding consistency between the BGE EMS, PJM EMS, and LOAD databases (see below for detail). As pointed out above, BGE found no discrepancies in these areas. However, this corrective action will help to ensure that no EMS/LOAD database discrepancies occur in the future.

BGE's plan includes BGE's transition to the new Exelon Utilities EMS. Exelon will implement automated technical capability in its new EMS to compare BGE EMS to PJM EMS values and BGE EMS values to those in the BGE Facility Rating system. Automatically comparing these values represents an improved control which will call out any discrepancies and allow for correction in a timely manner. In addition, BGE will work with the LOAD Software vendor to expand its capability regarding ratings history and reporting. LOAD will be rolled out to all the Exelon operating companies and used as the official ratings program.

Finally, BGE will develop a plan to conduct an end to end review for all BGE facilities. The plan will include oversight by senior level leadership. This review will include field verifications, source document verification, equipment rating calculations, ratings database analysis, consistency verification of BGE EMS ratings, PJM's EMS ratings of BGE Facilities, and Transmission Planning models, and consistency verification with BGE's ratings methodology. As noted in the actions above, BGE will provide the details of potential discrepancies, including any additional causes identified, any corrective actions taken to date for potential discrepancies, and discussion of the relative risk of each potential discrepancy.

Describe any action that may be taken or planned beyond that listed in the mitigation plan, to prevent or minimize the probability of incurring further violations of the same or similar standards requirements

Exelon is taking steps to continuously improve the overall effectiveness of the BGE Transmission Equipment and Facility Rating program as part of the overall project to centralize Transmission Planning work across the Exelon Utilities (EU). For example, as noted in the mitigating steps above, Exelon will be documenting plans to implement LOAD, a common application tool to document equipment and Facility Ratings that will be used by all Exelon Utilities. Exelon will also leverage the peer working group, comprised of representatives from all EU Transmission & Substation organizations, to compare equipment rating methodologies across each utility operating company and thereafter make recommendations to senior leadership for alignment. In addition, Exelon will implement automated technical capability in its new EMS to compare BGE EMS to PJM EMS values and BGE EMS values to those in the BGE Facility Rating system.

Authorization

An authorized individual must sign and date the signature page. By doing so, this individual, on behalf of your organization:

- * Submits the Mitigation Plan, as presented, to the regional entity for acceptance and approval by NERC, and
- * if applicable, certifies that the Mitigation Plan, as presented, was completed as specified.

Acknowledges:

1. I am qualified to sign this mitigation plan on behalf of my organization.
2. I have read and understand the obligations to comply with the mitigation plan requirements and ERO remedial action directives as well as ERO documents, including but not limited to, the NERC rules of procedure and the application NERC CMEP.
3. I have read and am familiar with the contents of the foregoing Mitigation Plan.

Baltimore Gas and Electric Company Agrees to be bound by, and comply with, this Mitigation Plan, including the timetable completion date, as accepted by the Regional Entity, NERC, and if required, the applicable governmental authority.

Authorized Individual Signature: _____
(Electronic signature was received by the Regional Office via CDMS. For Electronic Signature Policy see CMEP.)

Authorized Individual

Name: Carol A. Dodson

Title: VP, Transmission & Substation

Authorized On: September 04, 2020

Mitigation Plan

Mitigation Plan Summary

Registered Entity: Commonwealth Edison Company

Mitigation Plan Code:

Mitigation Plan Version: 1

NERC Violation ID	Requirement	Violation Validated On
RFC2020023645	FAC-008-3 R3.	

Mitigation Plan Submitted On: October 15, 2020

Mitigation Plan Accepted On:

Mitigation Plan Proposed Completion Date: October 29, 2021

Actual Completion Date of Mitigation Plan:

Mitigation Plan Certified Complete by ComEd On:

Mitigation Plan Completion Verified by RF On:

Mitigation Plan Completed? (Yes/No): No

Compliance Notices

Section 6.2 of the NERC CMEP sets forth the information that must be included in a Mitigation Plan. The Mitigation Plan must include:

- (1) The Registered Entity's point of contact for the Mitigation Plan, who shall be a person (i) responsible for filing the Mitigation Plan, (ii) technically knowledgeable regarding the Mitigation Plan, and (iii) authorized and competent to respond to questions regarding the status of the Mitigation Plan. This person may be the Registered Entity's point of contact described in Section B.
 - (2) The Alleged or Confirmed Violation(s) of Reliability Standard(s) the Mitigation Plan will correct.
 - (3) The cause of the Alleged or Confirmed Violation(s).
 - (4) The Registered Entity's action plan to correct the Alleged or Confirmed Violation(s).
 - (5) The Registered Entity's action plan to prevent recurrence of the Alleged or Confirmed violation(s).
 - (6) The anticipated impact of the Mitigation Plan on the bulk power system reliability and an action plan to mitigate any increased risk to the reliability of the bulk power-system while the Mitigation Plan is being implemented.
 - (7) A timetable for completion of the Mitigation Plan including the completion date by which the Mitigation Plan will be fully implemented and the Alleged or Confirmed Violation(s) corrected.
 - (8) Implementation milestones no more than three (3) months apart for Mitigation Plans with expected completion dates more than three (3) months from the date of submission. Additional violations could be determined or recommended to the applicable governmental authorities for not completing work associated with accepted milestones.
 - (9) Any other information deemed necessary or appropriate.
 - (10) The Mitigation Plan shall be signed by an officer, employee, attorney or other authorized representative of the Registered Entity, which if applicable, shall be the person that signed the Self Certification or Self Reporting submittals.
 - (11) This submittal form may be used to provide a required Mitigation Plan for review and approval by regional entity(ies) and NERC.
- The Mitigation Plan shall be submitted to the regional entity(ies) and NERC as confidential information in accordance with Section 1500 of the NERC Rules of Procedure.
 - This Mitigation Plan form may be used to address one or more related alleged or confirmed violations of one Reliability Standard. A separate mitigation plan is required to address alleged or confirmed violations with respect to each additional Reliability Standard, as applicable.
 - If the Mitigation Plan is accepted by regional entity(ies) and approved by NERC, a copy of this Mitigation Plan will be provided to the Federal Energy Regulatory Commission or filed with the applicable governmental authorities for approval in Canada.
 - Regional Entity(ies) or NERC may reject Mitigation Plans that they determine to be incomplete or inadequate.
 - Remedial action directives also may be issued as necessary to ensure reliability of the bulk power system.
 - The user has read and accepts the conditions set forth in these Compliance Notices.

Entity Information

Identify your organization:

Entity Name: Commonwealth Edison Company

NERC Compliance Registry ID: NCR08013

Address: 440 S. LaSalle Street
Chicago IL 60605

Identify the individual in your organization who will serve as the Contact to the Regional Entity regarding this Mitigation Plan. This person shall be technically knowledgeable regarding this Mitigation Plan and authorized to respond to Regional Entity regarding this Mitigation Plan:

Name: David J. Carlson

Title: Manager Compliance

Email: david.carlson@ComEd.com

Phone: 630-437-2173

Violation(s)

This Mitigation Plan is associated with the following violation(s) of the reliability standard listed below:

Violation ID	Date of Violation	Requirement
Requirement Description		
RFC2020023645	05/05/2020	FAC-008-3 R3.
Each Transmission Owner shall have a documented methodology for determining Facility Ratings (Facility Ratings methodology) of its solely and jointly owned Facilities (except for those generating unit Facilities addressed in R1 and R2) that contains all of the following: [See standard for methodology requirements]		

Brief summary including the cause of the violation(s) and mechanism in which it was identified:

On April 15, 2020, Atlantic City Electric Company (ACE), Delmarva Power & Light Company (DPL), and Potomac Electric Power Company (Pepco)(together, the PHI Utilities or PHI) submitted self-reports to ReliabilityFirst ("RF") disclosing potential discrepancies related to FAC-009/FAC-008 compliance at multiple PHI Facilities. The potential discrepancies were identified during extent of condition reviews following the discovery of the issue reported in Exelon Self-Log #92. ACE, DPL, and Pepco have been assigned Open Action Enforcement numbers RFC2020023212, RFC2020023213, and RFC2020023214 respectively by RF for processing the extent of condition findings.

Baltimore Gas and Electric Company (BGE), Commonwealth Edison Company (ComEd), and PECO Energy Company (PECO) initiated separate extent of condition reviews as a result of the issues identified at PHI. BGE, PECO, and ComEd have each performed reviews of a sample of Facilities using the NERC Sampling Methodology for FAC-008.

Based on the NERC ERO Sampling Handbook, with a total BES Facility count of 583 Facilities, ComEd conducted an end to end review of 29 transmission Facilities to ensure that the series-connected equipment in the Enhanced Equipment Ratings Database (EERD), ComEd's Facility Rating database, accurately reflected the equipment installed in the field, shown on source documentation, and included in asset databases in accordance with the ComEd Transmission Facility Ratings Methodology. In addition, the ratings of the 29 Transmission Facilities in the EERD were compared with the ratings in the ComEd and PJM Operations and Planning models.

As a result of the review, ComEd identified potential discrepancies that led to one (1) Facility Rating change. The Facility Rating decrease was due to a 345kV GIS SF6-to-Air bushing that was shown on source documents but was not captured in the Facility Rating Database. The Facility's summer short-term emergency and load dump ratings were decreased 283 and 269 MVA respectively. The Facility's winter long-term emergency, short-term and load dump ratings were decreased 18, 119, and 119 MVA respectively. No changes were observed in the Facility's normal ratings. The primary cause was due to the inconsistent implementation of the ComEd Transmission Facility Ratings Methodology by accurately capturing all series equipment and or equipment characteristics.

In addition, three (3) potential Facilities were identified where the operational ratings (ex. Ratings used in EMS) did not match the Facility Ratings Database and are associated with FAC-008-3 R8. These potential discrepancies are considered minor in nature as the Facility Ratings that were in place in the Operation models were more conservative compared to the ratings that should have been in place. On Facility 1, the winter load dump value increased 139 MVA in the ComEd operations model while the PJM operations model was correct. On Facility 2, the summer normal and emergency values increased between 10-28MVA in the PJM operations model while the ratings in the ComEd operations model was correct. Finally, on Facility 3, the summer and winter long term emergency values increased 50 MVA in the PJM operations model while the ratings in the ComEd operations model was correct. The primary cause was due to the improper mapping of the facilities within the internal Transmission Operations tool for comparing Facility Ratings in ComEd's Facility Ratings Database to ComEd and PJM operating models.

ComEd's extent of condition review of the sampled Facilities identified no inconsistencies between the ComEd Facility Ratings Database and the Transmission Planning models.

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Specific details of the potential Facility Ratings change identified for the initial sample set of 29 Facilities will be included in Milestone 14 along with additional potential discrepancies that led to potential Facility Rating changes, if any are identified in further extent of condition work. Additional disclosure Milestones have been included in the Mitigation Plan to provide RF with further Extent of Condition results.

Relevant information regarding the identification of the violation(s):

N/A

Plan Details

Identify and describe the action plan, including specific tasks and actions that your organization is proposing to undertake, or which it undertook if this Mitigation Plan has been completed, to correct the violation(s) identified above in Section C.1 of this form:

See table below.

Provide the timetable for completion of the Mitigation Plan, including the completion date by which the Mitigation Plan will be fully implemented and the violations associated with this Mitigation Plan are corrected:

Proposed Completion date of Mitigation Plan: October 29, 2021

Milestone Activities, with completion dates, that your organization is proposing for this Mitigation Plan:

Milestone Activity	Description	*Proposed Completion Date (Shall not be greater than 3 months apart)	Actual Completion Date	Entity Comment on Milestone Completion	Extension Request Pending
Milestone 1	Develop a comprehensive checklist to ensure all aspects of the ratings review process is reviewed during onboard training. Communicate checklist to Transmission Reliability Planning.	09/18/2020			No
Milestone 2	Revise ComEd Process AM-CE-P014-1 "T&S Substation Electrical Engineer Checklist" to include new section for GIS installations to ensure that ampere ratings of all major equipment components (bus, circuit breakers, switch disconnects, Gas to Air bushings, etc) are shown in the substation one-line diagram. Communicate revision to Substation	09/30/2020			No

Milestone Activity	Description	*Proposed Completion Date (Shall not be greater than 3 months apart)	Actual Completion Date	Entity Comment on Milestone Completion	Extension Request Pending
	Engineering.				
Milestone 3	Prepare and distribute a Technical Bulletin to all T&S Engineering and Field Personnel highlighting the importance of recording all field modifications in station prints, as well as the importance of the 'As Built' process to complete a project with updated, completed and accurate station prints	09/30/2020			No
Milestone 4	Develop and distribute job aid for the EMS Support Group (ESG) to review the ratings and impedance comparison mapping (EITK Mapping) quarterly to ensure accurate comparison tool mapping between ratings repositories and new EMS.	10/01/2020			No
Milestone 5	Revise AM-CE-4023-R0002, EERD Job Aid Reviewing and Modifying Transmission Facilities to provide additional clarity on the peer review process. Communicate revision to Transmission Reliability Planning	10/03/2020			No
Milestone 6	Design a plan to	10/30/2020			No

Milestone Activity	Description	*Proposed Completion Date (Shall not be greater than 3 months apart)	Actual Completion Date	Entity Comment on Milestone Completion	Extension Request Pending
	complete the extent of condition (EOC) for Facility ratings of the 554 remaining BES Facilities with target completion dates in an action tracking system				
Milestone 7	Develop an EU EMS Ratings Update management model procedure that describes the steps performed by EU TSO EMS Support Group to maintain new and existing equipment and Facility ratings related to ComEd's new EMS	10/30/2020			No
Milestone 8	Review and update ComEd's Transmission Ratings Update Procedure, AM-CE-4023 to incorporate changes associated with the new Exelon Utilities Administrative Procedure EMS Ratings Update, OP-EU-0210024. Communicate revision to appropriate groups.	12/04/2020			No
Milestone 9	Ensure all members of EU TSO EMS Support Group complete OSI Maintenance Center training which includes how to maintain Facility Ratings in the new	12/15/2020			No

Milestone Activity	Description	*Proposed Completion Date (Shall not be greater than 3 months apart)	Actual Completion Date	Entity Comment on Milestone Completion	Extension Request Pending
	EMS				
Milestone 10	Perform effectiveness review on T&S Engineering prints As-Built process and related procedure by randomly sampling four recently completed projects that have the potential to affect transmission Facility ratings. The projects sampled should ensure field modifications are accurately reflected on drawings and there was complete visibility of the print chain of custody during the project lifecycle.	12/31/2020			No
Milestone 11	Reinforce the adherence to EED Field Change Request (FCR) Process AM-ED-P018 with Substation Construction First Line Supervisors (FLS)	12/31/2020			No
Milestone 12	Develop onboard training material to support the comprehension of substation prints associated with the Facility ratings process. Communicate training material to Transmission Reliability Planning for additional	01/15/2021			No

Milestone Activity	Description	*Proposed Completion Date (Shall not be greater than 3 months apart)	Actual Completion Date	Entity Comment on Milestone Completion	Extension Request Pending
	reinforcement of comprehension of substation prints.				
Milestone 13	Review and update ComEd's Transmission Ratings Methodology, AM-CE-4023-R0001 to provide additional clarity on the inclusion start and stop points of substation terminal equipment. Conduct meeting to review changes with Transmission Reliability Planning.	01/15/2021			No
Milestone 14	Prepare and submit disclosure of discrepancies for completed Facility reviews to Reliability First. Identify corrected discrepancies and provide evidence of correction	01/29/2021			No
Milestone 15	Develop the implementation plan for use of LOAD Facility rating tool in ComEd. Implementation should include actions to review and update procedures, train Substation Engineering and Drafting, Transmission Engineering, Protection and Control Engineering, T&S Standards and	02/01/2021			No

Milestone Activity	Description	*Proposed Completion Date (Shall not be greater than 3 months apart)	Actual Completion Date	Entity Comment on Milestone Completion	Extension Request Pending
	Equipment Engineering Transmission Reliability Planning, System Operations, Project Management and Meter Services on changes resulting from tool implementation, and validation check for migration of data into LOAD. Consider as part of implementation inclusion of requirement to complete an assigned training program prior to obtaining access to LOAD				
Milestone 16	Prepare and submit disclosure of discrepancies for completed Facility reviews to Reliability First. Identify corrected discrepancies and provide evidence of correction	04/30/2021			No
Milestone 17	Create an LMS Transmission Facility Ratings training module to discuss NERC FAC-008 Standard, Compliance obligations, transmission equipment ratings, transmission Facility ratings, and the need for the equipment in the field to align with	06/01/2021			No

Milestone Activity	Description	*Proposed Completion Date (Shall not be greater than 3 months apart)	Actual Completion Date	Entity Comment on Milestone Completion	Extension Request Pending
	what is shown on substation prints and Cascade and other forms of documentation. Training to be targeted at all employees that can potentially impact transmission Facility ratings. Transmission Planning, T&S Engineering, Project Management, Work Management, Transmission Operations, Substation Crews, and Transmission Overhead Crews				
Milestone 18	Prepare and submit disclosure of discrepancies for completed Facility reviews to Reliability First. Identify corrected discrepancies and provide evidence of correction	07/30/2021			No
Milestone 19	Evaluate compliance assurance approach to FAC-008 based on findings in the extent of condition evaluations	08/20/2021			No
Milestone 20	Prepare and submit disclosure of discrepancies for completed Facility reviews to Reliability First. Identify corrected discrepancies and provide evidence of correction	10/29/2021			No

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Additional Relevant Information

None

Reliability Risk

Reliability Risk

While the Mitigation Plan is being implemented, the reliability of the bulk Power System may remain at higher Risk or be otherwise negatively impacted until the plan is successfully completed. To the extent they are known or anticipated : (i) Identify any such risks or impacts, and; (ii) discuss any actions planned or proposed to address these risks or impacts.

ComEd has not experienced any system related events due to any of the identified potential Facility Rating changes within the 29 Facilities reviewed and is working to correct potential Facility Rating changes in its Facility ratings database as expeditiously as possible. For the one (1) Facility Rating change, ComEd has performed analyses confirming the issue posed a minimal risk to the BES. ComEd has performed studies on the one Facility identified for a Facility Ratings decrease against NERC, PJM and ComEd planning criteria. This analysis was based on internal planning evaluations utilizing both the PJM Regional Transmission Expansion Plan (RTEP) planning model for 2025 and the ComEd planning model and have concluded that there are no criteria violations as a result of the Facility Rating decrease.

Operational reviews have also been performed to assess the maximum historical load on the one Facility identified for a Facility Ratings decrease. The review method is employed to determine if a Facility has been loaded above the MVA limits that should have been in place. Based on this review, the identified Facility was within approximately 75% of the summer normal rating, which did not change as a result of the inclusion of the SF6-to-Air bushing, and did not exceed the emergency ratings that should have been in place.

Due to the identification of the lower current carrying capability of the GIS SF6-Air bushing on the one Facility in the sample set, ComEd Transmission Reliability Planning conducted a preliminary records review of the remaining transmission Facilities associated with the substation where the limiting piece of equipment was located. It was discovered that on another facility, which was not associated with the initial 29 Facilities, the GIS SF6-Air bushing was also not included which resulted in the Facility's summer load dump rating decreasing 41 MVA and there were no impacts to the winter ratings. The Facility Rating Database was updated to capture the missing equipment and the updated Facility Ratings were communicated to ComEd and PJM operations. Additional details of the potential Facility Rating change will be included in a future disclosure to ReliabilityFirst once ComEd completes the full extent of condition review of the entire Facility.

Based on the results of the Extent of Condition Review, transmission planning analysis, operational reviews and a Risk Harm Analysis (RHA), ComEd views the risk to the Bulk Electric System with respect to the identified issues to be minimal.

ComEd similarly views the risk to the BES while mitigation is ongoing to be minimal. Based on the sample, ComEd did not identify significant issues that pose a high risk to the BES. ComEd responded quickly to the one identified Facility Rating change by performing a preliminary extent of condition to ensure any instances of a similar kind were caught quickly. In addition, ComEd has scheduled the issuance of a Technical Bulletin to the T&S Engineering and Field Personnel as part of Milestone 3 to highlight the importance of recording all field modifications in station prints, as well as the importance of the 'As Built' process to complete a project with updated, completed and accurate station prints. This near-term action provides heightened awareness to performers to guard against additional errors between now and the time the ComEd program improvements are implemented.

In addition, in recent years, ComEd improved its As-Built process to more accurately implement field generated markups on source documentation and the internal controls process to provide quality assurance checks of equipment entered in the Facility Ratings Database. These controls help to minimize the risk of issues occurring between now and the time the mitigation plan actions are successfully completed. ComEd is reviewing these controls for potential improvements as part of the mitigation steps, but to date these controls have reduced the potential for errors in the Facility Rating process at ComEd.

Prevention

Describe how successful completion of this plan will prevent or minimize the probability further violations of the same or similar reliability standards requirements will occur

The actions included in this mitigation plan will improve the ComEd Transmission Equipment and Facility Ratings program by implementing additional procedural controls (program and performer level); by providing additional clarity in current procedures, processes, checklist, and job aids; by adding comprehensive, ongoing training of personnel; by conducting an effectiveness review of recent process improvements; and by improving detective/compliance oversight controls.

To address the inconsistent implementation of the ComEd Transmission Facility Ratings Methodology and not accurately capturing all series equipment and or equipment characteristics, ComEd will develop a comprehensive checklist to insure all aspects of the ratings review process is reviewed during training, modify the existing job aid to provide additional clarity on the peer review process, develop training material to support the comprehension of substation prints, and review and update ComEd's Transmission Ratings Methodology to provide additional clarity on the inclusion start and stop points of a Facility's substation terminal equipment.

To address the improper mapping of facilities within the Facility Rating compare tool, ComEd will develop and distribute a job aid to review rating and impedance comparison mapping quarterly to ensure accurate comparison tool mapping between the Facility Rating Database and the ComEd and PJM EMS.

Finally, ComEd will develop a plan to conduct an end-to-end review of all ComEd BES facilities. The plan will include oversight by senior leadership. This review will include field verification, source document verification, equipment rating calculations, analysis of the ratings database, verification of ComEd and PJM EMS ratings, verification of ratings in Transmission Planning models and consistency verification with ComEd's ratings methodology. This review will provide assurance that the information in the Facility Rating Database, Operation models, and Planning models is accurate. ComEd will provide four quarterly disclosures on the details of potential discrepancies that led to Facility Rating changes, including any additional causes identified, any corrective actions taken to date for potential discrepancies, and discussion of the relative risk of each.

In addition to these improvements, ComEd's NERC Compliance support team will evaluate ComEd's approach to compliance based on the extent of condition evaluations and recommend opportunities for improvement to guard against errors in the future.

Describe any action that may be taken or planned beyond that listed in the mitigation plan, to prevent or minimize the probability of incurring further violations of the same or similar standards requirements

Finally, Exelon is taking steps to continuously improve the overall effectiveness of the ComEd Transmission Equipment and Facility Rating program as part of the overall project to centralize Transmission Planning work across the Exelon Utilities (EU). For example, as noted in the mitigating steps, Exelon will be documenting plans to implement LOAD, a common application tool to document equipment and Facility Ratings that will be used by all Exelon Utilities. Exelon will also leverage the peer working group, comprised of representatives from all EU Transmission & Substation organizations, to compare equipment rating methodologies across each utility operating company and thereafter make recommendations to senior leadership for alignment. In addition, Exelon will implement automated technical capability in its new EMS to compare ComEd EMS to PJM EMS values and ComEd EMS values to those in the ComEd Facility Rating database.

Authorization

An authorized individual must sign and date the signature page. By doing so, this individual, on behalf of your organization:

- * Submits the Mitigation Plan, as presented, to the regional entity for acceptance and approval by NERC, and
- * if applicable, certifies that the Mitigation Plan, as presented, was completed as specified.

Acknowledges:

1. I am qualified to sign this mitigation plan on behalf of my organization.
2. I have read and understand the obligations to comply with the mitigation plan requirements and ERO remedial action directives as well as ERO documents, including but not limited to, the NERC rules of procedure and the application NERC CMEP.
3. I have read and am familiar with the contents of the foregoing Mitigation Plan.

Commonwealth Edison Company Agrees to be bound by, and comply with, this Mitigation Plan, including the timetable completion date, as accepted by the Regional Entity, NERC, and if required, the applicable governmental authority.

Authorized Individual Signature: _____

(Electronic signature was received by the Regional Office via CDMS. For Electronic Signature Policy see CMEP.)

Authorized Individual

Name: Cheryl M. Maletich

Title: Senior Vice President Transmission & Substations

Authorized On: September 01, 2020

Mitigation Plan

Mitigation Plan Summary

Registered Entity: PECO Energy Company

Mitigation Plan Code:

Mitigation Plan Version: 1

NERC Violation ID	Requirement	Violation Validated On
RFC2020023643	FAC-008-3 R3.	

Mitigation Plan Submitted On: October 15, 2020

Mitigation Plan Accepted On:

Mitigation Plan Proposed Completion Date: December 31, 2021

Actual Completion Date of Mitigation Plan:

Mitigation Plan Certified Complete by PECO On:

Mitigation Plan Completion Verified by RF On:

Mitigation Plan Completed? (Yes/No): No

Compliance Notices

Section 6.2 of the NERC CMEP sets forth the information that must be included in a Mitigation Plan. The Mitigation Plan must include:

- (1) The Registered Entity's point of contact for the Mitigation Plan, who shall be a person (i) responsible for filing the Mitigation Plan, (ii) technically knowledgeable regarding the Mitigation Plan, and (iii) authorized and competent to respond to questions regarding the status of the Mitigation Plan. This person may be the Registered Entity's point of contact described in Section B.
 - (2) The Alleged or Confirmed Violation(s) of Reliability Standard(s) the Mitigation Plan will correct.
 - (3) The cause of the Alleged or Confirmed Violation(s).
 - (4) The Registered Entity's action plan to correct the Alleged or Confirmed Violation(s).
 - (5) The Registered Entity's action plan to prevent recurrence of the Alleged or Confirmed violation(s).
 - (6) The anticipated impact of the Mitigation Plan on the bulk power system reliability and an action plan to mitigate any increased risk to the reliability of the bulk power-system while the Mitigation Plan is being implemented.
 - (7) A timetable for completion of the Mitigation Plan including the completion date by which the Mitigation Plan will be fully implemented and the Alleged or Confirmed Violation(s) corrected.
 - (8) Implementation milestones no more than three (3) months apart for Mitigation Plans with expected completion dates more than three (3) months from the date of submission. Additional violations could be determined or recommended to the applicable governmental authorities for not completing work associated with accepted milestones.
 - (9) Any other information deemed necessary or appropriate.
 - (10) The Mitigation Plan shall be signed by an officer, employee, attorney or other authorized representative of the Registered Entity, which if applicable, shall be the person that signed the Self Certification or Self Reporting submittals.
 - (11) This submittal form may be used to provide a required Mitigation Plan for review and approval by regional entity(ies) and NERC.
- The Mitigation Plan shall be submitted to the regional entity(ies) and NERC as confidential information in accordance with Section 1500 of the NERC Rules of Procedure.
 - This Mitigation Plan form may be used to address one or more related alleged or confirmed violations of one Reliability Standard. A separate mitigation plan is required to address alleged or confirmed violations with respect to each additional Reliability Standard, as applicable.
 - If the Mitigation Plan is accepted by regional entity(ies) and approved by NERC, a copy of this Mitigation Plan will be provided to the Federal Energy Regulatory Commission or filed with the applicable governmental authorities for approval in Canada.
 - Regional Entity(ies) or NERC may reject Mitigation Plans that they determine to be incomplete or inadequate.
 - Remedial action directives also may be issued as necessary to ensure reliability of the bulk power system.
 - The user has read and accepts the conditions set forth in these Compliance Notices.

Entity Information

Identify your organization:

Entity Name: PECO Energy Company

NERC Compliance Registry ID: NCR08026

Address: 2301 Market Street
Philadelphia PA 19101

Identify the individual in your organization who will serve as the Contact to the Regional Entity regarding this Mitigation Plan. This person shall be technically knowledgeable regarding this Mitigation Plan and authorized to respond to Regional Entity regarding this Mitigation Plan:

Name: Michelle Ross

Title: Manager, PECO NERC Compliance

Email: Michelle.Ross@exeloncorp.com

Phone: 267-533-1195

Violation(s)

This Mitigation Plan is associated with the following violation(s) of the reliability standard listed below:

Violation ID	Date of Violation	Requirement
Requirement Description		
RFC2020023643	04/24/2020	FAC-008-3 R3.
Each Transmission Owner shall have a documented methodology for determining Facility Ratings (Facility Ratings methodology) of its solely and jointly owned Facilities (except for those generating unit Facilities addressed in R1 and R2) that contains all of the following: [See standard for methodology requirements]		

Brief summary including the cause of the violation(s) and mechanism in which it was identified:

On April 15, 2020, Atlantic City Electric Company (ACE), Delmarva Power & Light Company (DPL), and Potomac Electric Power Company (Pepco) (together, the PHI Utilities or PHI) submitted self-reports to ReliabilityFirst ("RF") disclosing potential discrepancies related to FAC-009/FAC-008 compliance at multiple PHI Facilities. The potential discrepancies were identified during extent of condition reviews following the discovery of the issue reported in Exelon Self-Log #92. ACE, DPL, and Pepco have been assigned Open Action Enforcement numbers RFC2020023212, RFC2020023213, and RFC2020023214 respectively by RF for processing the extent of condition findings.

Baltimore Gas and Electric Company (BGE), Commonwealth Edison Company (ComEd), and PECO Energy Company (PECO) initiated separate extent of condition reviews as a result of the issues identified at PHI. BGE, PECO, and ComEd have each performed reviews of a sample of Facilities using the NERC Sampling Methodology for FAC-008.

Based on the ERO Sampling Handbook, PECO selected a sample set of 29 out of 333 Facilities. These Facilities were selected for their range of voltage, latest revision, equipment types, age of substations, geographical diversity, design and risk to the Bulk Electric System (BES). This selection provides a realistic representative sample of PECO Facilities for this initial review.

For the targeted Facilities, the PECO team conducted an end to end review. Facility rating drawings were compared to actual field configurations. This review included field verifications, source document verification, equipment rating calculations, ratings database analysis and consistency verification of PECO's ratings methodology.

As a result of the review, PECO identified potential discrepancies that resulted in nine (9) Facility Rating changes, of which five (5) required an increase in the overall Facility Rating and PECO was operating more conservatively. In four (4) of the five (5) increases, the cause was due to incorrect Equipment ratings in the Facility rating database/repository. The fifth increase was caused by having an equipment type listed in Facility rating database/repository that was not installed in the field. Of the four (4) remaining Facility Rating changes, three (3) Facilities required decreases to the overall Facility Rating and one (1) was both an increase and decrease in rating. These changes are described in more detail below.

The potential Facility Ratings changes can be categorized into four (4) high-level error categories. Specific details of each discrepancy that led to the Facility Rating changes will be included in PECO's subsequent Milestones related to disclosures to RF.

The first category consisted of one (1) potential Facility Rating change where the equipment type listed in the Facility Rating database/repository was not installed in the field. This potential Facility Rating change at Facility 1 is associated with a wavetrap, that resulted in overall Facility Rating increases for normal, emergency, and load dump day values in the 0-5 degree temperature sets, and emergency and load dump values in the 10-15 (winter) degree temperature sets ranging from 2.4 MVA to 121.1MVA increases. The change also resulted in Facility Rating increases in the normal, emergency, and load dump night values in the 0-15 degree temperature sets, and normal and load dump values in the 20 degree temperature set, and normal values in the 25-35 (summer) degree temperature sets ranging from 2.4 MVA to 179.7 MVA. This Facility 1 consisted of 55 components and is a 230kV line facility. The wavetrap was identified on the facility rating drawing and was the limiting element in temperature sets above. Back-office reviews of

source documentation indicated the wavetrap was not part of this facility and field visit confirmed this configuration.

The second category consisted of one (1) potential Facility Rating applicable equipment that was not listed in Facility Rating database/repository (missing equipment) and was not used in the overall Facility Rating. This missing equipment is associated with an ammeter resulting in overall Facility Rating decreases for normal, emergency, and load dump day and night values in the 0-15 degree temperature sets, and emergency and load dump values in the 20-35 (summer) degree temperature sets ranging from 74.1 MVA to 215.6 MVA decreases. This Facility, Facility 2, consisted of 43 components and is a 230kV to 138kV transformer facility. The 2,000 Amp ammeter was not identified on the Facility Rating drawing. Back-office reviews of source documentation indicated the ammeter present at this Facility and field visit confirmed this view. The process to validate the contractor's baseline work did not have sufficient internal controls either to peer check information entered by the contracting teams or controls within PECO staff responsible for the accuracy of the information to validate accuracy previously and as currently configured.

The third category consisted of one (1) potential Facility Rating changes where there was a lack of source documentation, resulting in an overall Facility Rating decrease for normal, emergency, and load dump day and night values in all temperature sets ranging from 28.3 MVA to 227.9 MVA decreases. This Facility, Facility 3, consisted of 72 components and is a 230 kV line facility. The rating factor on the breaker bushing current transformers was on the facility ratings drawing as 2.0 value. Back-office reviews of source documentation could not verify the rating factor of 2.0 value, field verification did not provide the rating factor value on breaker nameplate for the Current transformers, resulting in needing to change rating factor value to 1.0. In certain cases, the contractors made assumptions for input parameters used to rate equipment, often going by memory, without looking for the accurate, specified information designated by PECO.

The final category consisted of six (6) potential Facility Ratings changes where equipment ratings were not correct in the Facility Rating database/repository. Three (3) of these six Facility Rating changes in this error category were associated with bus conductors (Facilities 4, 5, and 6) and three (3) were associated with line conductors (Facilities 7, 8, and 9).

Facility 4 consisted of 28 components and is a 138kV to 69kV transformer facility. There was a line conductor size of 477 kcmil on Facility Rating drawings. Back-office reviews of source documentation indicated that it should be 1,000 kcmil and should be a bus conductor not line conductor. A field visit confirmed this view. The potential discrepancy resulted in overall Facility Rating increases, for normal, emergency, and load dump day and night values in all temperature sets ranging from 8.6 MVA to 43.5 MVA increases.

Facility 5's potential error resulted in one segment of a 4 segmented line having increases and decreases to the overall Facility Rating. The impacted segment has 10 components and is a 230 kV tap of high voltage distribution. The normal day values in 0-5 degree temperature sets increased ranging from 4.0 MVA to 10.0 MVA, all other day normal, emergency, and load dump values decreased ranging from 2.4 MVA to 59.8 MVA and the normal night values in 0-25 degree temperature sets increased ranging from 0.4 MVA to 30.3 MVA, all other night normal, emergency, and load dump values decreased ranging from 7.2 MVA to 40.2 MVA. There was a line conductor size of 795 kcmil on facility rating drawings. Back-office reviews of source documentation indicated should be 1000 kcmil and should be a bus conductor not line conductor. A field visit confirmed this view. As part of specific project work, PECO did not reassess existing Facility Ratings baselines for accuracy, which resulted in the use of potentially inaccurate information.

Facility 6's potential error resulted in overall Facility Rating decreases for load dump day values in 0-25 degree temperature sets and Normal and load dump day values in 25-35 degree temperature sets ranging from 3.6 MVA to 20.3 MVA decreases. There were no night value changes. This Facility 6 consisted of 52 components and is a 230kV line facility. There was an error in the industry tool stranding values for 2000 kcmil bus. Back-office reviews of source documentation lead to questioning 127 strands versus 91 strands which led to determining the PJM excel sheet error.

Three (3) of the six Facility Rating changes in this error category were associated with line conductors and all resulted in overall Facility Rating increases in the emergency day value in the 0-degree

temperature set by 6.5 MVA for the 138kV Facility and 10.8 MVA for the 230kV Facilities. Facility 7 consisted of 44 components and is a 138kV line Facility, Facility 8 consisted of 63 components and is a 230kV line Facility, and Facility 9 consisted of 72 components and is a 230kV line Facility. There was a calculation error on this one-day value by the third-party contractor in 2012 for line conductor values that they had corrected in their database. Back-office reviews of Facility Rating drawings determined these Facilities were not corrected.

Based on the overall findings explained above from PECO's sample, PECO has identified the overall cause of the error types to be deficiencies in internal controls necessary for accuracy in the creation and maintenance of Facility Ratings. PECO utilizes a contracting resource with expertise in equipment ratings to augment PECO's staffing supporting the Facility Ratings program. This contracting firm handles Facility drawing development and updates to equipment ratings. However, the process to validate the contractor's baseline work did not have sufficient internal controls either to peer check information entered by the contracting teams or controls within PECO staff responsible for the accuracy of the information to validate accuracy previously and as currently configured.

As part of specific project work, PECO did not reassess existing Facility Ratings baselines for accuracy, which resulted in the use of potentially inaccurate information. As noted above, in some cases, information was missing from the PECO ratings database, and in others, extra equipment was included that was not present in the field, or incorrect equipment was listed. In certain cases, the contractors made assumptions for input parameters used to rate equipment, often going by memory, without looking for the accurate, specified information designated by PECO. These assumptions resulted from a lack of specific direction by PECO on how to resolve questions from the contractor on which input parameter to use in a specific situation.

Separate from the contracting resource errors, PECO utilized a PJM tool for rating OHT conductors that had a built-in error for conductor type and use of this tool resulted in errors in rating calculations and inconsistent interpretation of PECO's Facility Ratings Methodology.

Relevant information regarding the identification of the violation(s):

N/A

Plan Details

Identify and describe the action plan, including specific tasks and actions that your organization is proposing to undertake, or which it undertook if this Mitigation Plan has been completed, to correct the violation(s) identified above in Section C.1 of this form:

Tasks and Actions Completed To-Date

See table below

Provide the timetable for completion of the Mitigation Plan, including the completion date by which the Mitigation Plan will be fully implemented and the violations associated with this Mitigation Plan are corrected:

Proposed Completion date of Mitigation Plan: December 31, 2021

Milestone Activities, with completion dates, that your organization is proposing for this Mitigation Plan:

Milestone Activity	Description	*Proposed Completion Date (Shall not be greater than 3 months apart)	Actual Completion Date	Entity Comment on Milestone Completion	Extension Request Pending
Milestone 1	Prepare and distribute a Technical Bulletin to all T&S Engineering and Field Personnel highlighting the importance of recording all field modifications in station prints, as well as the importance of the "As Built" process to complete a project with updated, completed, and accurate station prints.	09/25/2020			No
Milestone 2	Develop and distribute job aid for the EMS Support Group (ESG) to review the ratings and impedance comparison mapping (EITK Mapping) quarterly to ensure accurate comparison tool mapping between ratings	10/01/2020			No

Milestone Activity	Description	*Proposed Completion Date (Shall not be greater than 3 months apart)	Actual Completion Date	Entity Comment on Milestone Completion	Extension Request Pending
	repositories and new EMS.				
Milestone 3	Design a plan to complete the extent of condition (EOC) for facility ratings of the 304 remaining BES Facilities with target completion dates in an action tracking system.	10/30/2020			No
Milestone 4	Develop an EU EMS Ratings Update management model procedure that describes the steps performed by EU TSO EMS Support Group to maintain new and existing equipment and Facility ratings related to PECO's new EMS.	10/30/2020			No
Milestone 5	Review, and update as necessary, the facility rating methodology AM-PE-4022-R0001 to provide a more consistent approach to applying the rating methodology equations, parameters for each section, and boundaries (of facility). This should include a standardized approach on where to get information and when conflicts are encountered how to resolve them. Consider creating a	11/06/2020			No

Milestone Activity	Description	*Proposed Completion Date (Shall not be greater than 3 months apart)	Actual Completion Date	Entity Comment on Milestone Completion	Extension Request Pending
	consolidated index of equipment rating methodologies used for rating of equipment and include as an attachment to the procedure. Include references to all methodology references and equipment ratings documents along with any revision numbers and/or dates.				
Milestone 6	Review current process JPP 1600 and EPP-4038, and management model documents AM-PE-1051 and AM-PE-1052 to identify any necessary process changes as a result of the types of discrepancies found during this ratings review to ensure accurate rating drawings by making a more robust quality check review of the rating drawings. This should include clarification of the roles and responsibilities of all stakeholders as necessary. Ensure the management model procedures reference the non-management model documents. Consider whether the non-management	11/13/2020			No

Milestone Activity	Description	*Proposed Completion Date (Shall not be greater than 3 months apart)	Actual Completion Date	Entity Comment on Milestone Completion	Extension Request Pending
	model documents should be incorporated into the procedures. Consider whether any additional job aids are needed for any parts of the process and whether any additional project management procedures should be included. Updates will also be made for any other improvements identified during this review. Review whether any management model procedures should be marked as NERC.				
Milestone 7	Review PJM excel file for OHT Conductor calculations inputs and outputs for correctness and identify any impacts to existing facilities as applicable. Communicate changes to all stakeholders.	11/13/2020			No
Milestone 8	Review and Update PECO's Transmission Ratings Update Procedure, AM-PE-4022 to incorporate changes associated with the new Exelon Utilities Administrative Procedure EMS Ratings Update, OP-	11/20/2020			No

Milestone Activity	Description	*Proposed Completion Date (Shall not be greater than 3 months apart)	Actual Completion Date	Entity Comment on Milestone Completion	Extension Request Pending
	EU-0210024. Communicate revision to appropriate groups.				
Milestone 9	Ensure all members of EU TSO EMS Support Group complete OSI Maintenance Center training which includes how to maintain Facility Ratings in the new EMS.	12/15/2020			No
Milestone 10	Correct all discrepancies on the 29 BES facility ratings in the sample, which includes rating drawing updates and updates to other design documents (single lines, RPDs, physical drawings) and databases where required. Prior to accepting the updated facility rating drawings, a final independent review should be performed along with performing a risk assessment of any operational or planning impacts from identified changes to overall facilities. For any discrepancies that cannot be addressed by the completion date, develop a plan with target completion dates in an action tracking system.	12/18/2020			No

Milestone Activity	Description	*Proposed Completion Date (Shall not be greater than 3 months apart)	Actual Completion Date	Entity Comment on Milestone Completion	Extension Request Pending
Milestone 11	Prepare and submit disclosure of additional discrepancies for completed Facility reviews to ReliabilityFirst and identify overall progress of Facility reviews. Identify corrected discrepancies and provide evidence of correction.	01/29/2021			No
Milestone 12	Train PECO facility rating process employees and contractors (T&S LRE's, AME's, SME's, field engineers, field personnel, and contracting resources) on changes to facility ratings methodology and procedures.	01/29/2021			No
Milestone 13	EU to develop the implementation plan for use of LOAD facility rating tool across Exelon. Implementation should include actions to review and update procedures, train Substation Engineering and Drafting, Transmission Engineering, Protection and Control Engineering, T&S Standards and Equipment Engineering	02/01/2021			No

Milestone Activity	Description	*Proposed Completion Date (Shall not be greater than 3 months apart)	Actual Completion Date	Entity Comment on Milestone Completion	Extension Request Pending
	Transmission Reliability Planning, System Operations, Project Management and Meter Services on changes resulting from tool implementation, and validation check for migration of data into LOAD. Consider as part of implementation inclusion of requirement to complete an assigned training program prior to obtaining access to LOAD.				
Milestone 14	Prepare and submit disclosure of additional discrepancies for completed Facility reviews to ReliabilityFirst and identify overall progress of Facility reviews. Identify corrected discrepancies and provide evidence of correction.	04/30/2021			No
Milestone 15	Evaluate compliance assurance approach to FAC-008 based on findings in the extent of condition evaluations in order to decide whether an increased monitoring plan is needed.	07/16/2021			No
Milestone 16	Prepare and submit disclosure of additional	07/30/2021			No

Milestone Activity	Description	*Proposed Completion Date (Shall not be greater than 3 months apart)	Actual Completion Date	Entity Comment on Milestone Completion	Extension Request Pending
	discrepancies for completed Facility reviews to ReliabilityFirst and identify overall progress of Facility reviews. Identify corrected discrepancies and provide evidence of correction.				
Milestone 17	Prepare and submit disclosure of additional discrepancies for completed Facility reviews to ReliabilityFirst and identify overall progress of Facility reviews. Identify corrected discrepancies and provide evidence of correction.	10/29/2021			No
Milestone18	Utilize new OSI-EMS system feature that provides automated check between PECO EMS to PJM EMS and PECO EMS to PECO Facility Rating system on agreed upon periodicity.	12/31/2021			No

Additional Relevant Information

None

Reliability Risk

Reliability Risk

While the Mitigation Plan is being implemented, the reliability of the bulk Power System may remain at higher Risk or be otherwise negatively impacted until the plan is successfully completed. To the extent they are known or anticipated : (i) Identify any such risks or impacts, and; (ii) discuss any actions planned or proposed to address these risks or impacts.

PECO has not experienced any system related events due to any of the identified potential Facility Rating changes in the sample. Based on the transmission planning analysis and the operational reviews explained below, PECO views the risk to the Bulk Electric System to be minimal for the Facility Rating changes identified in the sample. Similarly, PECO views the risk to the Bulk Electric System as minimal until the plan is successfully completed as a result of PECO's actions noted below and the heightened awareness at PECO for Facility Rating related work. PECO is working to correct discrepancies in its Facility ratings database as expeditiously as possible.

PECO prioritized review work in selecting the sample of Facilities, to the extent possible, to focus on the most critical Facilities. In addition, PECO is developing key processes to correct Facility Rating changes as soon as practical, taking into account time needed to perform the necessary reliability studies and planning to ensure proper and reliable adjustments to any impacted Facility Ratings.

As a short term corrective, PECO will be issuing a Technical Bulletin to the T&S Engineering and field personnel to highlight the importance of recording all field modifications in station prints, as well as the importance of the "As Built" process to complete a project with updated, completed and accurate station prints. This will serve to heighten awareness of the need for accuracy in the coming months while mitigation is in process.

Operational reviews have also been performed to assess the maximum historical load on Facilities identified for a Facility Ratings decrease. The review method is employed to determine if a Facility has been loaded above the MVA limits that should have been in place. PECO Transmission Operations has looked at and verified historical load data on the four (4) identified Facility Ratings decreases from January 2014 to present. During that time period the flow on the Facilities did not exceed the updated rating for the four (4) impacted Facilities that had a decrease in overall rating. This analysis supports PECO's view that the decreases in Facility Ratings identified present minimal risk to the BES.

Transmission System Operations reviewed the historical loading from January 2014 to present for the facilities that had a decrease in overall rating. The Normal 95 degree day (Fahrenheit) summer rating was used for the analysis, since PECO is a summer peaking utility and this is the most conservative rating of all the ambient adjusted ratings. Over the six (6) year sample period, none of the four (4) facilities with decreased ratings exceeded the new lower rating for all temperature sets.

Facility 2 had a Summer normal rating of 714 MVA that did not change compared to the original value. The historical loading did not exceed this rating and reached a maximum load of 369 MVA, which equals 51.7% of the facility's summer rating.

Facility 3 had a Summer normal rating of 860 MVA that decreased to 832 MVA, which equals a delta of 3.3%. The historical loading did not exceed this rating and reached a maximum load of 775 MVA, which equals 93.1% of the revised facility's summer rating.

Facility 5 had a Summer normal rating of 463 MVA that decreased to 418 MVA, which equals a delta of 13.9%. The historical loading did not exceed this rating and reached a maximum load of 57.9 MVA, which equals 13.9% of the revised facility's summer rating.

Facility 6 had a Summer normal rating of 647 MVA that decreased to 633 MVA, which equals a delta of 2.2%. The historical loading did not exceed this rating and reached a maximum load of 507 MVA, which equals 80.1% of the revised facility's summer rating.

PECO has performed studies on the four (4) Facilities identified for a Facility Ratings decrease against NERC, PJM and PECO planning criteria. This analysis utilized the PJM Regional Transmission Expansion Plan (RTEP) planning model for 2025 and concluded that there are no criteria violations as a result of the Facility Rating decrease.

Historic loading reviews will be conducted as ongoing Facility rating updates are completed, to ensure any additional historic ratings violations are identified and evaluated for impact. PECO will continue to perform similar assessments for any additional Facilities that require a decrease in ratings against both planning criteria and historical operational loading levels.

As part of its efforts to address identified potential Facility Rating discrepancies quickly, PECO is currently identifying opportunities to move any impacted Facilities related work up on the schedule.

Prevention

Describe how successful completion of this plan will prevent or minimize the probability further violations of the same or similar reliability standards requirements will occur

The actions identified in this mitigation plan will improve the PECO Transmission Equipment and Facility Ratings program by implementing additional procedural controls which provide additional clarification in current procedures, processes, job aids and checklists. This comprehensive improvement to the PECO Transmission Equipment and Facility Ratings program will increase overall performance by personnel and improve contextual guidance to performers. This will include consideration of internal controls needed to reduce the likelihood of human errors when executing the Transmission Equipment and Facility Ratings program and addresses the overall root cause related to lack of internal controls.

To improve accuracy by performers, PECO plans to review current processes and management model documentation to identify any necessary process changes as a result of discrepancies found during rating review to ensure accurate rating drawings by making a more robust quality check review of the rating drawings. PECO Facility rating employee and contractors will be trained on these process changes. This will reduce the likelihood that in the future there will be accuracy in our ratings drawings and performers will have guidance or knowledge while performing tasks related to equipment and Facility Ratings. PECO also plans to evaluate its compliance oversight approach once improvements are made to determine any adjustments needed to timely identify errors made in the program.

Furthermore, to establish verified Facility Rating baselines, PECO plans to conduct an end-to end review of all PECO BES Facilities. This review will include field verifications, source document verification, equipment verification, equipment rating calculations and an analysis of the ratings database to ensure consistency with PECO's rating methodology. This review will provide assurance that the information in the database is accurate.

Finally, PECO will provide four (4) quarterly disclosures on the details of potential discrepancies that led to Facility Rating changes, including any additional causes identified, any corrective actions taken to date for potential discrepancies, and discussion of the relative risk of each. These quarterly disclosures will be coordinated with internal review by senior leadership who will have oversight and visibility throughout the execution of our end-to-end review of the remaining Facilities.

Describe any action that may be taken or planned beyond that listed in the mitigation plan, to prevent or minimize the probability of incurring further violations of the same or similar standards requirements

Exelon is taking steps to continuously improve the overall effectiveness of the PECO Transmission Equipment and Facility Rating program as part of the overall project to centralize Transmission Planning work across the Exelon Utilities (EU). For example, as noted in the mitigating steps above, Exelon will be documenting plans to implement LOAD, a common application tool to document equipment and Facility

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October 16, 2020

Ratings that will be used by all Exelon Utilities. Exelon will also leverage the peer working group, comprised of representatives from all EU Transmission & Substation organizations, to compare equipment rating methodologies across each utility operating company values and PECO EMS values to those in the PECO Facility Rating and thereafter make recommendations to senior leadership for alignment. In addition, Exelon will implement automated technical capability in its new EMS, similar to PECO's existing EMS system, to compare PECO EMS to PJM EMS system.

Authorization

An authorized individual must sign and date the signature page. By doing so, this individual, on behalf of your organization:

- * Submits the Mitigation Plan, as presented, to the regional entity for acceptance and approval by NERC, and
- * if applicable, certifies that the Mitigation Plan, as presented, was completed as specified.

Acknowledges:

1. I am qualified to sign this mitigation plan on behalf of my organization.
2. I have read and understand the obligations to comply with the mitigation plan requirements and ERO remedial action directives as well as ERO documents, including but not limited to, the NERC rules of procedure and the application NERC CMEP.
3. I have read and am familiar with the contents of the foregoing Mitigation Plan.

PECO Energy Company Agrees to be bound by, and comply with, this Mitigation Plan, including the timetable completion date, as accepted by the Regional Entity, NERC, and if required, the applicable governmental authority.

Authorized Individual Signature: _____

(Electronic signature was received by the Regional Office via CDMS. For Electronic Signature Policy see CMEP.)

Authorized Individual

Name: Brian D. Crowe

Title: PECO Vice President, Transmission & Substations

Authorized On: September 01, 2020

Certification of Mitigation Plan Completion

Submittal of a Certification of Mitigation Plan Completion shall include data or information sufficient for the Regional Entity to verify completion of the Mitigation Plan. The Regional Entity may request additional data or information and conduct follow-up assessments, on-site or other Spot Checking, or Compliance Audits as it deems necessary to verify that all required actions in the Mitigation Plan have been completed and the Registered Entity is in compliance with the subject Reliability Standard. (CMEP Section 6.6)

Registered Entity Name: Baltimore Gas and Electric Company

NERC Registry ID: NCR00689

NERC Violation ID(s): RFC2020023644

Mitigated Standard Requirement(s): FAC-008-3 R6.

Scheduled Completion as per Accepted Mitigation Plan: December 31, 2021

Date Mitigation Plan completed: October 06, 2021

RF Notified of Completion on Date: November 29, 2021

Entity Comment:

I certify that the Mitigation Plan for the above named violation(s) has been completed on the date shown above and that all submitted information is complete and correct to the best of my knowledge.

Name: Charles Cumpton

Title: Principal NERC Compliance Specialist

Email: charles.cumpton@bge.com

Phone: 1 (667) 313-2048

Authorized Signature _____ Date _____

(Electronic signature was received by the Regional Office via CDMS. For Electronic Signature Policy see CMEP.)



Mitigation Plan Verification for RFC2020023644

Baltimore Gas and Electric Company

Standard/Requirement: FAC-008-3 R6

NERC Mitigation Plan ID: RFCMIT015302

Date of Completion of Mitigation: October 26, 2021

Description of Issue: [CF33488](#)

Evidence Reviewed	
File Name	Description of Evidence
File 1	File 1 RFC2020023644 FAC-008-3 R6 Milestone 1.pdf
File 2	File 2 RFC2020023644 FAC-008-3 R6 Milestone 2.pdf
File 3	File 3 RFC2020023644 FAC-008-3 R6 Milestone 3.pdf
File 4	File 4 RFC2020023644 FAC-008-3 R6 Milestone 4.pdf
File 5	File 5 RFC2020023644 FAC-008-3 R6 Milestone 5.pdf
File 6	File 6 RFC2020023644 FAC-008-3 R6 Milestone 6.pdf
File 7	File 7 RFC2020023644 FAC-008-3 R6 Milestone 7.pdf
File 8	File 8 RFC2020023644 FAC-008-3 R6 Milestone 8.pdf
File 9	File 9 RFC2020023644 FAC-008-3 R6 Milestone 9.pdf
File 10	File 10 RFC2020023644 FAC-008-3 R6 Milestone 10.pdf
File 11	File 11 RFC2020023644 FAC-008-3 R6 Milestone 11.pdf
File 12	File 12 RFC2020023644 FAC-008-3 R6 Milestone 12.pdf
File 13	File 13 RFC2020023644 FAC-008-3 R6 Milestone 13.pdf
File 14	File 14 RFC2020023644 FAC-008-3 R6 Milestone 14.pdf
File 15	File 15 RFC2020023644 FAC-008-3 R6 Milestone 15.pdf
File 16	File 16 RFC2020023644 FAC 008-3 R6 Milestone 16.pdf
File 17	File 17 RFC2020023644 FAC-008-3 R6 Milestone 17.pdf
File 18	File 18 RFC2020023644 FAC 008-3 R6 Milestone 18.pdf
File 19	File 19 RFC2020023644 FAC 008-3 R6 Milestone 19.pdf



Evidence Reviewed	
File Name	Description of Evidence
File 20	File 20 RFC2020023644 FAC 008-3 R6 Milestone 20.pdf
File 21	File 21 RFC2020023644 FAC 008-3 R6 Milestone 21.pdf
File 22	File 22 RFC2020023644 FAC 008-3 R6 Milestone 22.pdf
File 23	File 23 RFC2020023644 FAC 008-3 R6 Milestone 23.pdf
File 24	File 24 RFC2020023644 FAC 008-3 R6 Milestone 24.pdf

Verification of Mitigation Plan Completion

Milestone 1: Update EPB-11004 process to require As-Builts completed 30 days after receipt of drawings, as part of the project closeout.

Proposed Completion Date: 09/15/2020

Actual Completion Date: 9/1/2020

Milestone #1: Reviewed Evidence “File 1 RFC2020023644 FAC-008-3 R6 Milestone 1.pdf.” This is a 15 page pdf document. Pdf pages 2-15 are the EPB-11004-Substation As-Built Record Drawing Update Process document. Revision 5, dated 9/1/2020. The changes were made in section 5.7 on pdf page 9. This is sufficient to show completion of milestone #1.

Milestone 2: Develop and distribute job aid for the EMS Support Group (ESG) to review the ratings and impedance comparison mapping (EITK Mapping) quarterly to ensure accurate comparison tool mapping between ratings repositories and new EMS.

Proposed Completion Date: 10/01/2020

Actual Completion Date: 9/28/2020

Milestone #2: Reviewed Evidence “File 2 RFC2020023644 FAC-008-3 R6 Milestone 2.pdf.” This is a 11 page pdf document. Pdf pages 2-6 contain the Job Aid itself. Pdf pages 7-11 contain a series of e-mails showing the Job Aid was distributed to appropriate personnel. This is sufficient to show completion of milestone #2.

Milestone 3: Design a plan to complete the extent of condition (EOC) for facility ratings of the 274 remaining BES Facilities with target completion dates in an action tracking system.

Proposed Completion Date: 10/30/2020



Actual Completion Date: 10/29/2020

Milestone #3: Reviewed Evidence “File 3 RFC2020023644 FAC-008-3 R6 Milestone 3.pdf.” This is a 5 page pdf document. Pdf pages 2-5 contain the extent of condition plan for facility ratings. This is sufficient to show completion of milestone #3.

Milestone 4: Develop an EU EMS Ratings Update management model procedure that describes the steps performed by EU TSO EMS Support Group to maintain new and existing equipment and Facility ratings related to BGE's new EMS.

Proposed Completion Date: 10/30/2020

Actual Completion Date: 10/22/2020

Milestone #4: Reviewed Evidence “File 4 RFC2020023644 FAC-008-3 R6 Milestone 4.pdf.” This is a 12 page pdf document. Pdf pages 2-10 are the OP-EU-0210024 EMS Ratings Update Final procedure. Pdf pages 11 – 12 are the emails for approval of the procedure. This is sufficient to show completion of milestone #4.

Milestone 5: Create a form to submit to vendors to formalize the equipment rating submittal documentation.

Proposed Completion Date: 11/20/2020

Actual Completion Date: 11/19/2020

Milestone #5: Reviewed Evidence “File 5 RFC2020023644 FAC-008-3 R6 Milestone 5.pdf.” This is a 6 page pdf document. PDF pages 2-6 are Vendor Ratings Form-Guidelines Rev. 0. This is dated 11/19/2020 on pdf page 2. This is sufficient to show completion of milestone #5.

Milestone 6: Update BGE Transmission Ratings Methodology to reflect shift in responsibility from OCS to the EU EMS team for submission of Facility Ratings. Communicate change in procedure to required Facility Rating process stakeholders.

Proposed Completion Date: 11/30/2020

Actual Completion Date: 11/19/2020



Milestone #6: Reviewed Evidence “File 6 RFC2020023644 FAC-008-3 R6 Milestone 6.pdf.” This is a 31 page pdf document. PDF pages 2-30 are BGE Transmission Ratings Methodology Rev 13. This is dated 11/19/2020 on pdf page 2. Pdf page 31 is an e-mail where the update to the methodology was communicated to all Facility Rating process stakeholders. This is sufficient to show completion of milestone #6.

Milestone 7: Revise the BGE Substation Engineering Ratings Review Documentation to include updating the facility records in LOAD to assure that each component is identified and that source document references are provided in the notes.

Proposed Completion Date: 12/04/2020

Actual Completion Date: 12/01/2020

Milestone #7: Reviewed Evidence “File 7 RFC2020023644 FAC-008-3 R6 Milestone 7.pdf.” This is a 15 page pdf document. Pdf pages 2-15 is the BGE Substation Engineering Ratings Review Documentation, JPB-11002 Ratings Creation or Modification Procedure. This is Rev 0 and was approved on 12/1/2020 on pdf page 15. This is sufficient to show completion of milestone #7.

Milestone 8: Review current LOAD Ratings Database to identify any potential missing elements from the data migration. Correct any element inventory errors identified.

Proposed Completion Date: 12/04/2020

Actual Completion Date: 12/02/2020

Milestone #8: Reviewed Evidence “File 8 RFC2020023644 FAC-008-3 R6 Milestone 8.pdf.” This is a 2 page pdf document. Pdf page 1 is an overview. Pdf page 2 is an e-mail that states “This email serves to notify you that as of 12/2/20, Milestone 8 of the FAC-008-3 R6 Mitigation Plan has been completed.” This is sufficient to show completion of milestone #8.

Milestone 9: Provide an awareness/training session focused on the scope of the JPB-13008 pre-energization PRC/FAC review process to all ASPEN users capable of submitting a setting request.

Proposed Completion Date: 12/04/2020

Actual Completion Date: 10/26/2020



Milestone #9: Reviewed Evidence “File 9 RFC2020023644 FAC-008-3 R6 Milestone 9.pdf.” This is a 35 page pdf document. PDF page 1 is an overview. Pdf pages 2-17 are a series of e-mails that are training invites and/or attestations. PDF pages 18-35 is a training session focused on the scope of the JPB-13008 pre-energization PRC/FAC review process. This is sufficient to show completion of milestone #9.

Milestone 10: Review all electromechanical relays captured in the spreadsheet database for loadability evidence and ensure data is migrated to the ASPEN loadability tables for each device applied in a per-phase basis. Ensure that the ASPEN loadability tables are accurately populated for all BES capacitor facilities.

Proposed Completion Date: 12/04/2020

Actual Completion Date: 11/19/2020

Milestone #10: Reviewed Evidence “File 10 RFC2020023644 FAC-008-3 R6 Milestone 10.pdf.” This is a 4 page pdf document. PDF page 1 is an overview. Pdf pages 2-4 are the Aspen Loadability tables and the Electromechanical relays that were reviewed. This is sufficient to show completion of milestone #10.

Milestone 11: Review the Underground Transmission Design Handbook to ensure clarity and accuracy in the application of the standard loss factor.

Proposed Completion Date: 12/11/2020

Actual Completion Date: 12/10/2020

Milestone #11: Reviewed Evidence “File 11 RFC2020023644 FAC-008-3 R6 Milestone 11.pdf” This is a 64 page pdf document. PDF page 1 is an overview that states “The Underground Transmission Design Handbook was reviewed and revised on 12/10/2020 to ensure clarity and accuracy in the application of the standard loss factor. Section 5.1.10 was added to address Load Factor, Loss Factor, and the relationship between the two (see UG Design Handbook).” PDF pages 2-64 are the The Underground Transmission Design Handbook. The changes are on pdf pages 22-23. This is sufficient to show completion of milestone #11.

Milestone 12: Revise the Underground Transmission Design Handbook to provide that engineering judgement can be used to select a higher ambient ground temperature to ensure a more conservative ampacity rating.



Proposed Completion Date: 12/11/2020

Actual Completion Date: 12/10/2020

Milestone #12: Reviewed Evidence “File 12 RFC2020023644 FAC-008-3 R6 Milestone 12.pdf.” This is a 64 page pdf document. PDF page 1 is an overview. Pdf pages 2-64 are the The Underground Transmission Design Handbook. The changes are on pdf page 3. This is sufficient to show completion of milestone #12.

Milestone 13: Update the QA/QC documentation to include confirming the source data inputs.

Proposed Completion Date: 12/11/2020

Actual Completion Date: 12/8/2020

Milestone #13: Reviewed Evidence “File 13 RFC2020023644 FAC-008-3 R6 Milestone 13.pdf.” This is a 28 page pdf document. PDF page 1 is an overview. Pdf pages 2-28 are The engineering practice document, EPB-14404-Transmission Engineering Quality Control Process. The changes are on pdf pages 10 and 26. This is sufficient to show completion of milestone #13.

Milestone 14: Support OSI Maintenance Center Training for the EU TSO EMS Support Group responsible for maintaining Facility Ratings in the new EMS.

Proposed Completion Date: 12/15/2020

Actual Completion Date: 11/30/2020

Milestone #14: Reviewed Evidence “File 14 RFC2020023644 FAC-008-3 R6 Milestone 14.pdf.” This is a 47 page pdf document. PDF page 1 is an overview. Pdf page 2 is MC Training Confirmations. Pdf page 3 is the Agenda. Pdf pages 4-47 is the OSI Maintenance Center Job Aid. This is sufficient to show completion of milestone #14.

Milestone 15: Review all of the facilities that have not been approved since the original rating spreadsheet.

Proposed Completion Date: 12/18/2020

Actual Completion Date: 12/15/2020



Milestone #15: Reviewed Evidence “File 15 RFC2020023644 FAC-008-3 R6 Milestone 15.pdf.” This is a 47 page pdf document. PDF page 1 is an overview. It states in part “BGE initially established BES facility ratings in ratings spreadsheets. In 2010 BGE moved all facility ratings to the LOAD V2.10 ratings database. The purpose of this milestone is to assure the ratings imported from the initial spreadsheets have since been reviewed for accuracy and are approved. Pdf page 2 is a spreadsheet of the review. This is sufficient to show completion of milestone #15.

Milestone 16: Review BES Capacitor Facilities to confirm accuracy of document element and Facility ratings.

Proposed Completion Date: 12/18/2020

Actual Completion Date: 12/11/2020

Milestone #16: Reviewed Evidence “File 16 RFC2020023644 FAC-008-3 R6 Milestone 16.pdf.” This is a 5 page pdf document. PDF page 1 is an overview. Pdf page 2 is a list of capacitors. Pdf pages 3-5 are the screenshots of corrections made. This is sufficient to show completion of milestone #16.

Milestone 17: Work with the LOAD Software vendor to develop a schedule for expansion of the capability of LOAD to do the following:

- At the time of Facility Ratings approval, create a snapshot of critical rating parameters values entered in each elements of the Facility.
- Develop a report for any facility that will allow us to print out for every element in the facility, the ratings standard use to calculate the element ratings, all critical ratings parameter values used in those ratings calculations, and the resulting element ratings.

Proposed Completion Date: 12/18/2020

Actual Completion Date: 12/10/2020

Milestone #17: Reviewed Evidence “File 17 RFC2020023644 FAC-008-3 R6 Milestone 17.pdf.” This is a 2 page pdf document. PDF page 1 is an overview that states in part “The BGE LOAD Subject Matter Expert (SME) worked with the LOAD Software vendor to develop a schedule for expansion of the capability of LOAD to perform the two (2) items mentioned in the bulleted points above.” Pdf page 2 is an e-mail confirmation. This is sufficient to show completion of milestone #17.



Milestone 18: Create a process to request, file, and store vendor specific ratings documentation. Train team members on the new process.

Proposed Completion Date: 12/18/2020

Actual Completion Date: 12/15/2020

Milestone #18: Reviewed Evidence “File 18 RFC2020023644 FAC-008-3 R6 Milestone 18.pdf.” This is a 9 page pdf document. PDF page 1 is an overview that states in part “A process was created to request, file, and store vendor specific ratings documentation. JPB-17017 - Control of Vendor Supplied Ratings Information was created on 12/14/2020.” Pdf page 2-9 is JPB-17017 - Control of Vendor Supplied Ratings Information. This is rev 0 dated 12/14/2020. This is sufficient to show completion of milestone #18.

Milestone 19: Prepare and submit disclosure of additional discrepancies for completed Facility reviews to ReliabilityFirst and identify overall progress of Facility reviews. Identify corrected discrepancies and provide evidence of correction.

Proposed Completion Date: 01/29/2021

Actual Completion Date: 1/28/2021

Milestone #19: Reviewed Evidence “File 19 RFC2020023644 FAC-008-3 R6 Milestone 19.pdf.” This is a 4 page pdf document. PDF page 1 is an overview that states in part “On 1/28/2021, BGE’s first quarterly progress report, as well as additional evidence documents, were submitted to ReliabilityFirst. Q1 BGE FAC-008 Disclosure Letter (1-28-21), details FAC-008-3 R6 extent of condition review progress and findings for BGE and identifies the overall progress of Facility reviews. As a part of the submittal, two additional evidence documents were included. BGE_January_2021_RF_Report_Summary_Att_1, shows BGE’s Rating Review Summary on the completion of reviews related to each Facility. BGE_January_2021_RF_Submittal_Att_2 will be used to identify any future potential discrepancies with transmission equipment that led to overall Transmission Facility Ratings changes.” Pdf page 2-4 is supporting documentation of the review. This is sufficient to show completion of milestone #19.

Milestone 20: Develop the implementation plan for use of BGE's LOAD facility rating tool in the EU Transmission Planning future state. Implementation should include actions to review and update procedures, train Substation Engineering and Drafting, Transmission Engineering, Protection and Control Engineering, T&S Standards and Equipment Engineering Transmission Reliability Planning, System Operations, Project Management and Meter Services on changes resulting from tool implementation, and validation check for migration of data into LOAD.



Consider as part of implementation inclusion of requirement to complete an assigned training program prior to obtaining access to LOAD.

Proposed Completion Date: 02/01/2021

Actual Completion Date: 1/26/2021

Milestone #20: Reviewed Evidence “File 20 RFC2020023644 FAC-008-3 R6 Milestone 20.pdf.” This is a 4 page pdf document. PDF page 1 is an overview. Pdf page 2-4 is the Cascade Facility Ratings Tool (LOAD) Implementation Plan. This is sufficient to show completion of milestone #20.

Milestone 21: Prepare and submit disclosure of additional discrepancies for completed Facility reviews to ReliabilityFirst and identify overall progress of Facility reviews. Identify corrected discrepancies and provide evidence of correction.

Proposed Completion Date: 04/30/2021

Actual Completion Date: 04/21/2021

Milestone #21: Reviewed Evidence “File 21 RFC2020023644 FAC-008-3 R6 Milestone 21.pdf.” This is a 3 page pdf document. PDF page 1 is an overview. Pdf page 2-3 is a letter that provides the second quarterly update of the BGE extent of condition review progress and findings related to NERC Reliability Standard FAC-008-3 – Facility Ratings. This is sufficient to show completion of milestone #21.

Milestone 22: Prepare and submit disclosure of additional discrepancies for completed Facility reviews to ReliabilityFirst and identify overall progress of Facility reviews. Identify corrected discrepancies and provide evidence of correction.

Proposed Completion Date: 07/30/2021

Actual Completion Date: 7/22/2021

Milestone #22: Reviewed Evidence “File 22 RFC2020023644 FAC-008-3 R6 Milestone 22.pdf.” This is a 3 page pdf document. PDF page 1 is an overview that states in part” On 7/22/2021 BGE’s third quarterly progress report was submitted to ReliabilityFirst.” Pdf pages 2-3 is the third quarterly update of the BGE extent of condition review progress and findings related to NERC Reliability Standard FAC-008-3 – Facility Ratings. This is sufficient to show completion of milestone #22.



Milestone 23: Prepare and submit disclosure of additional discrepancies for completed Facility reviews to ReliabilityFirst and identify overall progress of Facility reviews. Identify corrected discrepancies and provide evidence of correction.

Proposed Completion Date: 10/29/2021

Actual Completion Date: 10/26/2021

Milestone #23: Reviewed Evidence “File 23 RFC2020023644 FAC 008-3 R6 Milestone 23.pdf.” This is a 4 page pdf file. Pdf page 1 is an overview. Pdf page 2-4 is the fourth quarterly update. This is sufficient to show completion of milestone #23.

Milestone 24: Utilize new OSI-EMS system feature that provides automated check between BGE EMS to PJM EMS and BGE EMS to BGE Facility Rating system on agreed upon periodicity.

Proposed Completion Date: 12/31/2021

Actual Completion Date: 10/6/2021

Milestone #24: Reviewed Evidence “File 24 RFC2020023644 FAC 008-3 R6 Milestone 24.pdf.” This is a 3 page pdf file. Pdf page 1 is an overview. Pdf page 2-3 is the Job Aid for reviewing Ratings Discrepancies. This is sufficient to show completion of milestone #24.

The Mitigation Plan is hereby verified complete.

A handwritten signature in black ink, appearing to read 'Anthony Jablonski', written over a horizontal line.

Date: January 12, 2022

Anthony Jablonski
Senior Manager, Risk Analysis & Mitigation
ReliabilityFirst Corporation

Certification of Mitigation Plan Completion

Submittal of a Certification of Mitigation Plan Completion shall include data or information sufficient for the Regional Entity to verify completion of the Mitigation Plan. The Regional Entity may request additional data or information and conduct follow-up assessments, on-site or other Spot Checking, or Compliance Audits as it deems necessary to verify that all required actions in the Mitigation Plan have been completed and the Registered Entity is in compliance with the subject Reliability Standard. (CMEP Section 6.6)

Registered Entity Name: Commonwealth Edison Company

NERC Registry ID: NCR08013

NERC Violation ID(s): RFC2020023645

Mitigated Standard Requirement(s): FAC-008-3 R6.

Scheduled Completion as per Accepted Mitigation Plan: October 29, 2021

Date Mitigation Plan completed: October 25, 2021

RF Notified of Completion on Date: December 02, 2021

Entity Comment: All mitigation milestones have been completed by the proposed due dates with the evidence submitted.

I certify that the Mitigation Plan for the above named violation(s) has been completed on the date shown above and that all submitted information is complete and correct to the best of my knowledge.

Name: Douglas Adams

Title: Principal Compliance Specialist

Email: douglas.adams@ComEd.com

Phone: 1 (630) 576-6132

Authorized Signature _____ Date _____

(Electronic signature was received by the Regional Office via CDMS. For Electronic Signature Policy see CMEP.)



Mitigation Plan Verification for RFC2020023645

Commonwealth Edison Company

Standard/Requirement: FAC-008-3 R6

NERC Mitigation Plan ID: RFCMIT015304

Date of Completion of Mitigation: October 25, 2021

Description of Issue: [CF33481](#)

Evidence Reviewed	
File Name	Description of Evidence
File 1	Attachment 1 ComEd April 2021 RF Report Summary.xlsx
File 2	Attachment 2 ComEd April 2021 RF Facility Results Lists.xlsx
File 3	ComEd 2021 Q2 FAC-008 Disclosure Letter (4-28-2021).pdf
File 4	Attachment 1 ComEd July 2021 RF Report Summary.xlsx
File 5	Attachment 2 ComEd July 2021 RF Facility Results Lists.xlsx
File 6	ComEd 2021 Q3 FAC-008 Disclosure Letter (7-26-2021).pdf
File 7	RFC2020023645 FAC-008-3 Milestone 1 Final.pdf
File 8	RFC2020023645 FAC-008-3 Milestone 2 Final.pdf
File 9	RFC2020023645 FAC-008-3 Milestone 3 Final.pdf
File 10	RFC2020023645 FAC-008-3 Milestone 4 Final.pdf
File 11	RFC2020023645 FAC-008-3 Milestone 5 Final.pdf
File 12	RFC2020023645 FAC-008-3 Milestone 6 Final.pdf
File 13	RFC2020023645 FAC-008-3 Milestone 7.pdf
File 14	RFC2020023645 FAC-008-3 Milestone 8 Final.pdf
File 15	RFC2020023645 FAC-008-3 Milestone 9 Final.pdf
File 16	RFC2020023645 FAC-008-3 Milestone 10 Final Rev1.pdf
File 17	RFC2020023645 FAC-008-3 Milestone 11 Final.pdf
File 18	RFC2020023645 FAC-008-3 Milestone 12 Final.pdf
File 19	RFC2020023645 FAC-008-3 Milestone 13 Final.pdf



Evidence Reviewed	
File Name	Description of Evidence
File 20	RFC2020023645 FAC-008-3 Milestone 14.pdf
File 21	RFC2020023645 FAC-008 Milestone 15 Rev 1 Final.pdf
File 22	RFC2020023645 FAC-008-3 Milestone 16 Final.pdf
File 23	RFC2020023645 FAC-008-3 Milestone 17 Final.pdf
File 24	RFC2020023645 FAC-008-3 Milestone 18 Final.pdf
File 25	RFC2020023645 FAC-008-3 Milestone 19.pdf
File 26	RFC2020023645 FAC-008-3 Milestone 20 Final.pdf

Verification of Mitigation Plan Completion

Milestone 1: Develop a comprehensive checklist to ensure all aspects of the ratings review process is reviewed during onboard training. Communicate checklist to Transmission Reliability Planning.

Proposed Completion Date: 9/18/2020

Actual Completion Date: 9/16/2020

Milestone #1: Reviewed Evidence "RFC2020023645 FAC-008-3 Milestone 1_Final.pdf" This is an 8 page pdf. Pdf page 1 is an overview. Pdf page 2-3 is the checklist. Pdf pages 4-8 are e-mails, org charts, and a meeting attendance screenshot to show the communication of the checklist to transmission Reliability Planning. This is sufficient to show completion of milestone #1.

Milestone 2: Revise ComEd Process AM-CEP014-1 "T&S Substation Electrical Engineer Checklist" to include new section for GIS installations to ensure that ampere ratings of all major equipment components (bus, circuit breakers, switch disconnects, Gas to Air bushings, etc.) are shown in the substation one-line diagram. Communicate revision to Substation Engineering.

Proposed Completion Date: 9/30/2020

Actual Completion Date: 12/3/2020

Milestone #2: Reviewed Evidence "RFC2020023645 FAC-008-3 Milestone 2_Final.pdf" This is a 69 page pdf. Pdf page 1 is an overview. Pdf page 2-57 is the Procedure AM-CEP014. The revisions for GIS installations is on pdf page 16. On pdf page 15 it shows this is revision 14 dated 9/14/2020. Pdf pages 67-69 are PowerPoint slides used in the training. Pdf pages 57-66 are e-mails, and screenshots to show attendance of the training. This is sufficient to show completion of milestone #2.



Milestone 3: Prepare and distribute a Technical Bulletin to all T&S Engineering and Field Personnel highlighting the importance of recording all field modifications in station prints, as well as the importance of the ‘As Built’ process to complete a project with updated, completed and accurate station prints.

Proposed Completion Date: 9/30/2020

Actual Completion Date: 9/18/2020

Milestone #3: Reviewed Evidence “RFC2020023645 FAC-008-3 Milestone 3_Final.pdf” This is a 6 page pdf. Pdf page 1 is an overview. Pdf pages 2-5 are the technical bulletin. Pdf page 6 is the e-mail showing distribution of the bulletin. This is sufficient to show completion of milestone #3.

Milestone 4: Develop and distribute job aid for the EMS Support Group (ESG) to review the ratings and impedance comparison mapping (EITK Mapping) quarterly to ensure accurate comparison tool mapping between ratings repositories and new EMS.

Proposed Completion Date: 10/1/2020

Actual Completion Date: 9/28/2020

Milestone #4: Reviewed Evidence “RFC2020023645 FAC-008-3 Milestone 4_Final.pdf” This is an 11 page pdf. Pdf page 1 is an overview. Pdf pages 2-6 are the Job Aid. Pdf pages 6-11 show distribution of the job aid. This is sufficient to show completion of milestone #4.

Milestone 5: Revise AM-CE-4023-R0002, EERD Job Aid Reviewing and Modifying Transmission Facilities to provide additional clarity on the peer review process. Communicate revision to Transmission Reliability Planning.

Proposed Completion Date: 10/3/2020

Actual Completion Date: 10/1/2020

Milestone #5: Reviewed Evidence “RFC2020023645 FAC-008-3 Milestone 5_Final.pdf” This is an 18 page pdf. Pdf page 1 is an overview. Pdf pages 2-11 are the Job Aid. This is revision 3 dated 10/1/2020. Pdf pages 12-18 show distribution and review of the job aid. This is sufficient to show completion of milestone #5.

Milestone 6: Design a plan to complete the extent of condition (EOC) for Facility ratings of the 554 remaining BES Facilities with target completion dates in an action tracking system.



Proposed Completion Date: 10/30/2020

Actual Completion Date: 10/29/2020

Milestone #6: Reviewed Evidence “RFC2020023645 FAC-008-3 Milestone 6_Final.pdf” This is a 7 page pdf. Pdf page 1 is an overview. Pdf pages 2-4 are the FAC-008 Extent of Condition Plan. Pdf page 7 is a screenshot of the tracking system. This is sufficient to show completion of milestone #6.

Milestone 7: Develop an EU EMS Ratings Update management model procedure that describes the steps performed by EU TSO EMS Support Group to maintain new and existing equipment and Facility ratings related to ComEd’s new EMS.

Proposed Completion Date: 10/30/2020

Actual Completion Date: 10/22/2020

Milestone #7: Reviewed Evidence “RFC2020023645 FAC-008-3 Milestone 7.pdf” This is a 12 page pdf. Pdf page 1 is an overview. Pdf pages 2-10 are the EMS rating update procedure. It is Revision 0 dated 11/6/2020. Pdf pages 11-12 is an email dated 10/22/2020 about the newly approved procedure. This is sufficient to show completion of milestone #7. Completion date should probably be equated with the documented procedure approval date of 11/6/2020.

Milestone 8: Review and update ComEd’s Transmission Ratings Update Procedure, AM-CE-4023 to incorporate changes associated with the new Exelon Utilities Administrative Procedure EMS Ratings Update, OP-EU-0210024. Communicate revision to appropriate groups.

Proposed Completion Date: 12/4/2020

Actual Completion Date: 12/2/2020

Milestone #8: Reviewed Evidence “RFC2020023645 FAC-008-3 Milestone 8 Final.pdf” This is a 17 page pdf document. Pdf page 1 is an overview. Pdf pages 2-16 are the updated procedure. On pdf page 16 is revision 6 dated 12/2/2020. Pdf page 17 is an e-mail dated 12/2/2020 to communicate the revised procedure. This is sufficient to show completion of milestone #8.

Milestone 9: Ensure all members of EU TSO EMS Support Group complete OSI Maintenance Center training which includes how to maintain Facility Ratings in the new EMS.



Proposed Completion Date: 12/15/2020

Actual Completion Date: 11/30/2020

Milestone #9: Reviewed Evidence “RFC2020023645 FAC-008-3 Milestone 9 Final.pdf” This is a 47 page pdf document. Pdf page 1 is an overview. Pdf pages 2 is an e-mail with the tracking that individuals received the e-mail. On pdf page 3-4 is an agenda. Pdf page 5-47 is the Maintenance center job aid. This is sufficient to show completion of milestone #9.

Milestone 10: Perform effectiveness review on T&S Engineering prints As-Built process and related procedure by randomly sampling four recently completed projects that have the potential to affect transmission Facility ratings. The projects sampled should ensure field modifications are accurately reflected on drawings and there was complete visibility of the print chain of custody during the project lifecycle.

Proposed Completion Date: 12/31/2020

Actual Completion Date: 12/18/2020

Milestone #10: Reviewed Evidence “RFC2020023645 FAC-008-3 Milestone 10 Final Rev1.pdf” This is a 20 page pdf document. Pdf page 1 is an overview. Pdf page 2 is a meeting notice. The meeting is titled FAC-008 findings presentation and the date is 12-18-2020. Pdf page 4 is a screenshot of attendance. Pdf pages 5-20 is the presentation materials. This is sufficient to show completion of milestone #10.

Milestone 11: Reinforce the adherence to EED Field Change Request (FCR) Process AM-ED-P018 with Substation Construction First Line Supervisors (FLS).

Proposed Completion Date: 12/31/2020

Actual Completion Date: 9/21/2020

Milestone #11: Reviewed Evidence “RFC2020023645 FAC-008-3 Milestone 11 Final.pdf.” This is a 34 page pdf document. Pdf page 1 is an overview. Pdf page 2 – 30 Are the process documents. Pdf pages 31-34 is the attendance documentation for the training on the process documents. This is sufficient to show completion of milestone #11.



Milestone 12: Develop onboard training material to support the comprehension of substation prints associated with the Facility ratings process. Communicate training material to Transmission Reliability Planning for additional reinforcement of comprehension of substation prints.

Proposed Completion Date: 1/15/2021

Actual Completion Date: 1/5/2021

Milestone #12: Reviewed Evidence “RFC2020023645 FAC-008-3 Milestone 12 Final.pdf.” This is a 27 page pdf document. Pdf page 1 is an overview. Pdf pages 2–19 is the training for Understanding Substation Drawings. Pdf pages 20-27 are a series of e-mails to show attendance documentation for the training. This is sufficient to show completion of milestone #12.

Milestone 13: Review and update ComEd’s Transmission Ratings Methodology, AM-CE-4023-R0001 to provide additional clarity on the inclusion start and stop points of substation terminal equipment. Conduct meeting to review changes with Transmission Reliability Planning.

Proposed Completion Date: 1/15/2021

Actual Completion Date: 1/15/2021

Milestone #13: Reviewed Evidence “RFC2020023645 FAC-008-3 Milestone 13 Final.pdf.” This is a 51 page pdf document. Pdf page 1 is an overview. Pdf pages 2–49 is the updated ComEd’s Transmission Ratings Methodology, AM-CE-4023-R0001 is training for Understanding Substation Drawings. This is revision 5, dated 1/15/2021. Pdf pages 50-51 is a meeting invite and a screenshot to show attendance. This is sufficient to show completion of milestone #13.

Milestone 14: Prepare and submit disclosure of additional discrepancies for completed Facility reviews to ReliabilityFirst and identify overall progress of Facility reviews. Identify corrected discrepancies and provide evidence of correction.

Proposed Completion Date: 1/29/2021

Actual Completion Date: 1/28/2021

Milestone #14: Reviewed Evidence “RFC2020023645 FAC-008-3 Milestone 14.pdf.” This is a 25 page pdf document. Pdf page 1 is an overview. The overview states in part “On 1/28/2021, ComEd’s first quarterly progress report, as well as additional evidence documents, were submitted to ReliabilityFirst. Q1 ComEd FAC-008 Disclosure Letter (1-28-2021) details the FAC-008-3 R6 extent of condition review progress and findings for ComEd and identifies the overall progress of



the Facility reviews. Additional evidence includes Attachment_1_ComEd_January_2021_RF_Report_Summary, which shows ComEd's Rating Review Summary as to the completion of reviews related to each Facility and Attachment_2_ComEd_January_2021_RF_Facility_Results_Lists, which identifies potential discrepancies with transmission equipment that necessitated the overall Transmission Facility Ratings changes. For the three (3) Facility Rating's change identified in the Disclosure Letter, Evidence of Correction – Facility Ratings Changes shows the corrections made to ComEd's Facility Ratings Database; the email notification of the Facility Rating's change; the Mantis tickets which reflect updates to ComEd's Energy Management System (EMS); and the Transmission Equipment Ratings Monitor (TERM) tickets which reflect the updates with PJM. For the four (4) identified Operational Rating's variances identified in the Disclosure Letter, Evidence of Correction – EMS Ratings Changes shows the one (1) Mantis ticket which reflect the updates to ComEd's EMS and the three (3) TERM tickets which reflect the updates with PJM." Pdf pages 2 – 5 is the Q1 progress report. Pdf pages 6-25 are the evidence of ratings database values as well as revision tickets for corrected ratings.

Reviewed Evidence "Attachment_1_ComEd_April_2021_RF_Report_Summary.xlsx." This is a spreadsheet showing data related to the quarterly report of Facility reviews.

Reviewed Evidence "Attachment_2_ComEd_April_2021_RF_Facility_Results_Lists.xlsx." This is a spreadsheet showing data related to the quarterly report of Facility reviews.

This is sufficient to show completion of milestone #14.

Milestone 15: Develop the implementation plan for use of LOAD Facility rating tool in ComEd. Implementation should include actions to review and update procedures, train Substation Engineering and Drafting, Transmission Engineering, Protection and Control Engineering, T&S Standards and Equipment Engineering Transmission Reliability Planning, System Operations, Project Management and Meter Services on changes resulting from tool implementation, and validation check for migration of data into LOAD. Consider as part of implementation inclusion of requirement to complete an assigned training program prior to obtaining access to LOAD.

Proposed Completion Date: 2/1/2021

Actual Completion Date: 1/26/2021

Milestone #15: Reviewed Evidence "RFC2020023645 FAC-008 Milestone 15 Rev 1_Final.pdf." This is a 5 page pdf document. Pdf page 1 is an overview. Pdf pages 2-5 is the Cascade Facilities Rating Tool (LOAD) implementation plan. This is sufficient to show completion of milestone #15.

Milestone 16: Prepare and submit disclosure of additional discrepancies for completed Facility reviews to ReliabilityFirst and identify overall progress of Facility reviews. Identify corrected discrepancies and provide evidence of correction.



Proposed Completion Date: 4/30/2021

Actual Completion Date: 4/28/2021

Milestone #16: Reviewed Evidence “RFC2020023645 FAC-008 Milestone 16 Final.pdf.” This is a 40 page pdf document. Pdf page 1 is an overview. Pdf pages 2-40 is the second Quarterly progress report and the evidence of ratings database values as well as revision tickets for corrected ratings.

Reviewed Evidence “Attachment_1_ComEd_April_2021_RF_Report_Summary.xlsx.” This is a spreadsheet showing data related to the quarterly report of Facility reviews.

Reviewed Evidence “Attachment_2_ComEd_April_2021_RF_Facility_Results_Lists.xlsx.” This is a spreadsheet showing data related to the quarterly report of Facility reviews.

This is sufficient to show completion of milestone #16.

Milestone 17: Create an LMS Transmission Facility Ratings training module to discuss NERC FAC-008 Standard, Compliance obligations, transmission equipment ratings, transmission Facility ratings, and the need for the equipment in the field to align with what is shown on substation prints and Cascade and other forms of documentation. Training to be targeted at all employees that can potentially impact transmission Facility ratings. Transmission Planning, T&S Engineering, Project Management, Work Management, Transmission Operations, Substation Crews, and Transmission Overhead Crews.

Proposed Completion Date: 6/1/2021

Actual Completion Date: 5/26/2021

Milestone #17: Reviewed Evidence “RFC2020023645 FAC-008 Milestone 17 Final.pdf.” This is a 63 page pdf document. Pdf page 1 is an overview. Pdf pages 2-51 is the LMS Transmission Facility Ratings training materials. Pdf pages 52 -63 are e-mails and training Rosters. This is sufficient to show completion of milestone #17.

Milestone 18: Prepare and submit disclosure of additional discrepancies for completed Facility reviews to ReliabilityFirst and identify overall progress of Facility reviews. Identify corrected discrepancies and provide evidence of correction.

Proposed Completion Date: 7/30/2021

Actual Completion Date: 7/26/2021



Milestone #18: Reviewed Evidence “RFC2020023645 FAC-008 Milestone 18 Final.pdf.” This is a 26 page pdf document. Pdf page 1 is an overview. Pdf pages 2-26 is the third Quarterly progress report and the evidence of ratings database values as well as revision tickets for corrected ratings.

Reviewed Evidence “Attachment_1_ComEd_April_2021_RF_Report_Summary.xlsx.” This is a spreadsheet showing data related to the quarterly report of Facility reviews.

Reviewed Evidence “Attachment_2_ComEd_April_2021_RF_Facility_Results_Lists.xlsx.” This is a spreadsheet showing data related to the quarterly report of Facility reviews.

This is sufficient to show completion of Milestone #18.

Milestone 19: Evaluate compliance assurance approach to FAC-008 based on findings in the extent of condition evaluations.

Proposed Completion Date: 8/20/2021

Actual Completion Date: 8/11/2021

Milestone #19: Reviewed Evidence “RFC2020023645 FAC-008-3 Milestone 19.pdf.” This is a 14 page pdf document. Pdf page 1 is an overview. Pdf pages 2-13 ids the review and findings. Pdf page 14 is a screenshot to show attendance to the findings review. This is sufficient to show completion of milestone #19.

Milestone 20: Prepare and submit disclosure of additional discrepancies for completed Facility reviews to ReliabilityFirst and identify overall progress of Facility reviews. Identify corrected discrepancies and provide evidence of correction.

Proposed Completion Date: 10/30/2021

Actual Completion Date: 10/25/2021

Milestone #20: Reviewed Evidence “RFC2020023645 FAC-008-3 Milestone 20_Final.pdf.” This is an 81 page pdf document. Pdf page 1 is an overview. Pdf pages 2-81 is the fourth Quarterly progress report and the evidence of ratings database values as well as revision tickets for corrected ratings.



Reviewed Evidence “Attachment_1_ComEd_April_2021_RF_Report_Summary.xlsx.” This is a spreadsheet showing data related to the quarterly report of Facility reviews.

Reviewed Evidence “Attachment_2_ComEd_April_2021_RF_Facility_Results_Lists.xlsx.” This is a spreadsheet showing data related to the quarterly report of Facility reviews.

This is sufficient to show completion of Milestone #20.

The Mitigation Plan is hereby verified complete.

A handwritten signature in black ink, appearing to be 'Anthony Jablonski'.

Date: January 20, 2022

Anthony Jablonski
Senior Manager, Risk Analysis & Mitigation
ReliabilityFirst Corporation

Certification of Mitigation Plan Completion

Submittal of a Certification of Mitigation Plan Completion shall include data or information sufficient for the Regional Entity to verify completion of the Mitigation Plan. The Regional Entity may request additional data or information and conduct follow-up assessments, on-site or other Spot Checking, or Compliance Audits as it deems necessary to verify that all required actions in the Mitigation Plan have been completed and the Registered Entity is in compliance with the subject Reliability Standard. (CMEP Section 6.6)

Registered Entity Name: PECO Energy Company

NERC Registry ID: NCR08026

NERC Violation ID(s): RFC2020023643

Mitigated Standard Requirement(s): FAC-008-3 R6.

Scheduled Completion as per Accepted Mitigation Plan: December 31, 2021

Date Mitigation Plan completed: October 27, 2021

RF Notified of Completion on Date: November 15, 2021

Entity Comment:

Additional Documents			
From	Document Name	Description	Size in Bytes
Entity	RFC2020023643 FAC-008-3 R6 Milestone 2.pdf	Milestone Binder 02	1,740,986
Entity	RFC2020023643 FAC-008-3 R6 Milestone 1.pdf	Milestone Binder 01	4,913,431
Entity	RFC2020023643 FAC-008-3 R6 Milestone 3.pdf	Milestone Binder 03	1,176,335
Entity	RFC2020023643 FAC-008-3 R6 Milestone 4.pdf	Milestone Binder 04	1,372,851
Entity	RFC2020023643 FAC-008-3 R6 Milestone 5.pdf	Milestone Binder 05	3,330,608
Entity	RFC2020023643 FAC-008-3 R6 Milestone 6.pdf	Milestone Binder 06	7,654,219
Entity	RFC2020023643 FAC-008-3 R6 Milestone 7.pdf	Milestone Binder 07	2,829,174
Entity	RFC2020023643 FAC-008-3 R6 Milestone 8.pdf	Milestone Binder 08	1,941,238
Entity	RFC2020023643 FAC-008-3 R6 Milestone 9.pdf	Milestone Binder 09	4,054,987
Entity	RFC2020023643 FAC-008-3 R6 Milestone 15.pdf	Milestone Binder 15	1,832,355
Entity	RFC2020023643 FAC-008-3 R6 Milestone 17.pdf	Milestone Binder 17	2,518,532
Entity	RFC2020023643 FAC 008-3 R6 Milestone 18.pdf	Milestone Binder 18	932,282

ReliabilityFirst

Confidential Non-Public Information

November 19, 2021

I certify that the Mitigation Plan for the above named violation(s) has been completed on the date shown above and that all submitted information is complete and correct to the best of my knowledge.

Name: Brian D. Crowe

Title: PECO Vice President, Transmission & Substations

Email: brian.crowe@peco-energy.com

Phone: 1 (215) 841-5316

Authorized Signature _____ Date _____

(Electronic signature was received by the Regional Office via CDMS. For Electronic Signature Policy see CMEP.)



Mitigation Plan Verification for RFC2020023643

PECO Energy Company

Standard/Requirement: FAC-008-3 R6

NERC Mitigation Plan ID: RFCMIT015303

Date of Completion of Mitigation: October 27, 2021

Description of Issue: [CF33489](#)

Evidence Reviewed	
File Name	Description of Evidence
File 1	File 1 RFC2020023643 FAC-008-3 R6 Milestone 1.pdf
File 2	File 2 RFC2020023643 FAC-008-3 R6 Milestone 2.pdf
File 3	File 3 RFC2020023643 FAC-008-3 R6 Milestone 3.pdf
File 4	File 4 RFC2020023643 FAC-008-3 R6 Milestone 4.pdf
File 5	File 5 RFC2020023643 FAC-008-3 R6 Milestone 5.pdf
File 6	File 6 RFC2020023643 FAC-008-3 R6 Milestone 6.pdf
File 7	File 7 RFC2020023643 FAC-008-3 R6 Milestone 7.pdf
File 8	File 8 RFC2020023643 FAC-008-3 R6 Milestone 8.pdf
File 9	File 9 RFC2020023643 FAC-008-3 R6 Milestone 9.pdf
File 10	File 10 RFC2020023643 FAC-008-3 R6 Milestone 10.pdf
File 11	File 11 RFC2020023643 FAC-008-3 R6 Milestone 11.pdf
File 12	File 12 RFC2020023643 FAC-008-3 R6 Milestone 12.pdf
File 13	File 13 RFC2020023643 FAC-008-3 R6 Milestone 13.pdf
File 14	File 14 RFC2020023643 FAC-008-3 R6 Milestone 14.pdf
File 15	File 15 RFC2020023643 FAC-008-3 R6 Milestone 15.pdf
File 16	File 16 RFC2020023643 FAC 008-3 R6 Milestone 16.pdf
File 17	File 17 RFC2020023643 FAC-008-3 R6 Milestone 17
File 18	File 18 RFC2020023643 FAC 008-3 R6 Milestone 18
File 19	PECO FAC-008 Milestone 15 RFC2020023643 (7-26-2021).pdf



Evidence Reviewed	
File Name	Description of Evidence
File 20	Q3 PECO Disclosure Letter to RF 7.23.2021 Final.pdf
File 21	Q2 PECO Disclosure Letter to RF 4.29.21 Final.pdf
File 22	PECO Rating Review Summary April 2021 Final.xlsx
File 23	PECO 2021 RF Submittal April Final.xlsx

Verification of Mitigation Plan Completion

Milestone 1: Prepare and distribute a Technical Bulletin to all T&S Engineering and Field Personnel highlighting the importance of recording all field modifications in station prints, as well as the importance of the "As Built" process to complete a project with updated, completed, and accurate station prints.

Proposed Completion Date: 9/25/2020

Actual Completion Date: 9/18/2020

Milestone #1: *RFC2020023643 FAC-008-3 R6 Milestone 1* details the actions around this milestone. Included is the Technical Bulletin which was distributed on September 18, 2020. Within the summary, it discusses the importance of ensuring field equipment matches station prints, facility ratings databases, etc. Milestone met.

Milestone 2: Develop and distribute job aid for the EMS Support Group (ESG) to review the ratings and impedance comparison mapping (EITK Mapping) quarterly to ensure accurate comparison tool mapping between ratings repositories and new EMS.

Proposed Completion Date: 10/1/2020

Actual Completion Date: 9/28/2020

Milestone #2: *RFC2020023643 FAC-008-3 R6 Milestone 2* details the actions around this milestone. The job aid was provided which shows personnel the process for reviewing the ratings and impedance comparison mapping to ensure accurate comparison tool mapping between ratings repositories and the new EMS. Additionally, an email dated September 28, 2020, showing distribution of this job aid was provided. Milestone met.

Milestone 3: Design a plan to complete the extent of condition (EOC) for facility ratings of the 304 remaining BES Facilities with target completion dates in an action tracking system.



Proposed Completion Date: 10/30/2020

Actual Completion Date: 10/30/2020

Milestone #3: *RFC2020023643 FAC-008-3 R6 Milestone 3* details the actions around this milestone. The Extent of Condition Plan was provided which states a review of the remaining facilities will be conducted within a two year time frame with a targeted completion date in December 2022. The document is signed and dated on October 29, 2020. Milestone met.

Milestone 4: Develop an EU EMS Ratings Update management model procedure that describes the steps performed by EU TSO EMS Support Group to maintain new and existing equipment and Facility ratings related to PECO's new EMS.

Proposed Completion Date: 10/30/2020

Actual Completion Date: 10/22/2020

Milestone #4: *RFC2020023643 FAC-008-3 R6 Milestone 4* details the actions around this milestone. The new procedure was provided which shows the steps that should be taken to ensure the ratings within the EMS are maintained properly. An email, dated October 22, 2020, was provided showing distribution of this procedure to staff. Milestone met.

Milestone 5: Review, and update as necessary, the facility rating methodology AM-PE-4022-R0001 to provide a more consistent approach to applying the rating methodology equations, parameters for each section, and boundaries (of facility). This should include a standardized approach on where to get information and when conflicts are encountered how to resolve them. Consider creating a consolidated index of equipment rating methodologies used for rating of equipment and include as an attachment to the procedure. Include references to all methodology references and equipment ratings documents along with any revision numbers and/or dates.

Proposed Completion Date: 11/06/2020

Actual Completion Date: 11/05/2020

Milestone #5: *RFC2020023643 FAC-008-3 R6 Milestone 5* details the actions around this milestone. The updated facility rating methodology was provided. It has an effective date of November 5, 2020. PECO's consolidated index of equipment rating methodologies used for rating of equipment has been updated with decision trees to provide additional guidance in the process and to establish best practices.



Milestone 6: Review current process JPP 1600 and EPP-4038, and management model documents AM-PE-1051 and AM-PE-1052 to identify any necessary process changes as a result of the types of discrepancies found during this ratings review to ensure accurate rating drawings by making a more robust quality check review of the rating drawings. This should include clarification of the roles and responsibilities of all stakeholders as necessary. Ensure the management model procedures reference the non-management model documents. Consider whether the non-management model documents should be incorporated into the procedures. Consider whether any additional job aids are needed for any parts of the process and whether any additional project management procedures should be included. Updates will also be made for any other improvements identified during this review. Review whether any management model procedures should be marked as NERC.

Proposed Completion Date: 11/13/2020

Actual Completion Date: 11/12/2020

Milestone #6: *RFC2020023643 FAC-008-3 R6 Milestone 6* details the actions around this milestone. The aforementioned process documents within milestone 6 were reviewed by a PECO engineer to identify any necessary changes. JPP-1600, AM-PE-1051 and AM-PE-1052, only AM-PE-1051 required an update for a cross-reference to the Management Model Document EPP-4038 and no additional changes were required for AM-PE-1052 as the cross-reference to EPP-4038 already existed. Updates to the documents occurred on November 12, 2020. Milestone met.

Milestone 7: Review PJM excel file for OHT Conductor calculations inputs and outputs for correctness and identify any impacts to existing facilities as applicable. Communicate changes to all stakeholders.

Proposed Completion Date: 11/13/2020

Actual Completion Date: 11/13/2020

Milestone #7: *RFC2020023643 FAC-008-3 R6 Milestone 7* details the actions around this milestone. A PECO engineer completed the review on November 13, 2020. The review identified the potential facility rating discrepancies pertaining to the conductor characteristics of the facilities, which are potential changes at this time and will undergo further verification during the investigation and will be disclosed in subsequent Milestones if any issues are determined. An email communication, dated November 13, 2020, was provided showing the engineer communicated the changes to all stakeholders per the email BES - Conductors evaluation Communication to Stakeholders to provide information of the recent Conductor evaluation, provided details and an awareness of the next steps. Milestone met.



Milestone 8: Review and Update PECO's Transmission Ratings Update Procedure, AM-PE-4022 to incorporate changes associated with the new Exelon Utilities Administrative Procedure EMS Ratings Update, OPNo EU-0210024. Communicate revision to appropriate groups.

Proposed Completion Date: 11/20/2020

Actual Completion Date: 11/20/2020

Milestone #8: *RFC2020023643 FAC-008-3 R6 Milestone 8* details the actions around this milestone. On 11/19/2020, the Manager of Transmission Reliability Planning – Exelon Utilities (EU) reviewed and updated PECO's Transmission Ratings Update Procedure AM-PE-4022 which incorporated changes associated with the new Exelon Utilities Administrative Procedure EMS Ratings Update. Milestone met.

Milestone 9: Ensure all members of EU TSO EMS Support Group complete OSI Maintenance Center training which includes how to maintain Facility Ratings in the new EMS.

Proposed Completion Date: 12/15/2020

Actual Completion Date: 11/30/2020

Milestone #9: *RFC2020023643 FAC-008-3 R6 Milestone 9* details the actions around this milestone. On 11/30/2020, individuals within Exelon's Transmission System Operations Support group acknowledged that they attended OSI Maintenance Training (MC Training Confirmations) which showed how to maintain Facility Ratings in the new EMS. The training itself, the agenda for the training as well as the email showing personnel received the training was provided. Milestone met.

Milestone 10: Correct all discrepancies on the 29 BES facility ratings in the sample, which includes rating drawing updates and updates to other design documents (single lines, RPDs, physical drawings) and databases where required. Prior to accepting the updated facility rating drawings, a final independent review should be performed along with performing a risk assessment of any operational or planning impacts from identified changes to overall facilities. For any discrepancies that cannot be addressed by the completion date, develop a plan with target completion dates in an action tracking system. While PECO did not correct all 29 as stated, they are making progress towards it and continue to have quarterly meetings with RF to provide updates. Milestone met.

Proposed Completion Date: 12/18/2020

Actual Completion Date: 12/18/2020

Milestone #10: *RFC2020023643 FAC-008-3 R6 Milestone 10* details the actions around this milestone. On 12/18/2020, PECO completed a review of nine facilities with ratings changes from



PECO's original sample size of their 29 BES facilities. As part of PECO's quarterly disclosures, PECO continues to finalize reviews on the remaining 20 facilities in the initial sample and has added corrective actions in their action tracking system. For the ones that were performed, a spreadsheet was provided showing the details of the review as well as the temporary facility ratings for those 9.

Milestone 11: Prepare and submit disclosure of additional discrepancies for completed Facility reviews to ReliabilityFirst and identify overall progress of Facility reviews. Identify corrected discrepancies and provide evidence of correction.

Proposed Completion Date: 1/29/2021

Actual Completion Date: 1/28/2021

Milestone #11: *RFC2020023643 FAC-008-3 R6 Milestone 11* details the actions around this milestone. On January 28, 2021, PECO provided a letter to RF case manager, Patrick O'Conner, detailing the first quarterly update of the PEC extent of condition review progress. Milestone met.

Milestone 12: Train PECO facility rating process employees and contractors (T&S LRE's, AME's, SME's, field engineers, field personnel, and contracting resources) on changes to facility ratings methodology and procedures.

Proposed Completion Date: 1/29/2021

Actual Completion Date: 1/27/2021

Milestone #12: *RFC2020023643 FAC-008-3 R6 Milestone 12* details the actions around this milestone. On 01/14/2021, 01/19/2021, and 01/22/2021, PECO hosted three training sessions to communicate changes to the Facility Ratings methodology and associated procedures to Facility Rating process employees and contractors. PECO provided the meeting invites, attendance lists, and the training itself. Milestone met.

Milestone 13: EU to develop the implementation plan for use of LOAD facility rating tool across Exelon. Implementation should include actions to review and update procedures, train Substation Engineering and Drafting, Transmission Engineering, Protection and Control Engineering, T&S Standards and Equipment Engineering Transmission Reliability Planning, System Operations, Project Management and Meter Services on changes resulting from tool implementation, and validation check for migration of data into LOAD. Consider as part of implementation inclusion of requirement to complete an assigned training program prior to obtaining access to LOAD.

Proposed Completion Date: 2/1/2021

Actual Completion Date: 1/26/2021



Milestone #13: *RFC2020023643 FAC-008-3 R6 Milestone 13* details the actions around this milestone. On 01/26/2021, Exelon Utilities (EU) developed an implementation plan for use of the LOAD facility rating tool (database) across Exelon. A presentation of the plan was provided showing the implementation schedule and plan, including procedure updates, training across the PECO groups listed above, and validation checks during migration of data into LOAD. Milestone met.

Milestone 14: Prepare and submit disclosure of additional discrepancies for completed Facility reviews to ReliabilityFirst and identify overall progress of Facility reviews. Identify corrected discrepancies and provide evidence of correction.

Proposed Completion Date: 4/30/2021

Actual Completion Date: 4/29/2021

Milestone #14: *RFC2020023643 FAC-008-3 R6 Milestone 14* details the actions around this milestone. On 4/29/2021, PECO's second quarterly progress report, as well as additional evidence documents, were submitted to RF case manager, Patrick O'Connor. Milestone met.

Milestone 15: Evaluate compliance assurance approach to FAC-008 based on findings in the extent of condition evaluations in order to decide whether an increased monitoring plan is needed.

Proposed Completion Date: 7/16/2021

Actual Completion Date: 7/8/2021

Milestone #15: *RFC2020023643 FAC-008-3 R6 Milestone 15* details the actions around this milestone. On 7/8/2021, the PECO Compliance Team met with PECO Transmission and Substation leadership and key FAC-008 stakeholders to review PECO's FAC-008 compliance assurance approach plan. The Plan outlines PECO's approach to sustain FAC-008 compliance moving forward which includes additional measures to include in its compliance assurance activities, including internal controls, sampling and meetings of key personnel. Milestone met.

Milestone 16: Prepare and submit disclosure of additional discrepancies for completed Facility reviews to ReliabilityFirst and identify overall progress of Facility reviews. Identify corrected discrepancies and provide evidence of correction.

Proposed Completion Date: 7/30/2021

Actual Completion Date: 7/23/2021

Milestone #16: *RFC2020023643 FAC-008-3 R6 Milestone 16* details the actions around this milestone. On 7/23/2021, PECO's third quarterly progress report was submitted to RF case manager, Patrick O'Connor. Milestone met.



Milestone 17: Prepare and submit disclosure of additional discrepancies for completed Facility reviews to ReliabilityFirst and identify overall progress of Facility reviews. Identify corrected discrepancies and provide evidence of correction.

Proposed Completion Date: 10/29/2021

Actual Completion Date: 10/27/2021

Milestone #17: *RFC2020023643 FAC-008-3 R6 Milestone 17* details the actions around this milestone. On 10/27/2021, PECO's quarterly progress report, as well as additional evidence documents, were submitted to RF case manager, Patrick O'Connor. Milestone met.

Milestone 18: Utilize new OSI-EMS system feature that provides automated check between PECO EMS to PJM EMS and PECO EMS to PECO Facility Rating system on agreed upon periodicity.

Proposed Completion Date: 12/31/2021

Actual Completion Date: 10/6/2021

Milestone #18: *RFC2020023643 FAC-008-3 R6 Milestone 18* details the actions around this milestone. Upon inception of EMS Go Live in Quarter 4 2020, the new OSI-EMS system feature (referred to as the Data Comparison Tool or DCT) was commissioned to automatically perform the task to compare ratings from the Facility Ratings (Planning) database, OSI production system (EMS), and PJM eDart system. A job aid was developed to provide an overview of this process. Revision 2 of this job aid became effective on October 5, 2021. Milestone met.

The Mitigation Plan is hereby verified complete.

A handwritten signature in black ink, appearing to read 'Anthony Jablonski'.

Date: December 24, 2021

Anthony Jablonski
Manager, Risk Analysis & Mitigation
ReliabilityFirst Corporation