

December 29, 2022

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 Duke Energy Progress, LLC
FERC Docket No. NP23_-000**

Dear Ms. Bose:

The North American Electric Reliability Corporation (NERC) hereby provides this Notice of Penalty¹ regarding Duke Energy Progress (DEP), NERC Registry ID# NCR01298, 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)).² The violations within this Notice of Penalty are only attributed to Duke Energy Florida, LLC (DEF or the Entity, NERC Registry ID# NCR00063).³ At the time the violations were discovered, DEF was part of a multi-region registered entity (MRRE) agreement in which violations for DEF were assigned a NERC Violation ID connected to DEP.

NERC is filing this Notice of Penalty, with information and details regarding the nature and resolution of the violations,⁴ with the Commission because SERC Reliability Corporation (SERC) and the Entity have entered into a Settlement Agreement to resolve all outstanding issues arising from SERC's determination and findings of the violations of the Protection and Control (PRC) Reliability Standards listed below.

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

³ The Entity was included on the NERC Compliance Registry as a Balancing Authority, Distribution Provider, Generator Owner, Generator Operator, Planning Authority/Planning Coordinator, Resource Planner, Transmission Owner, Transmission Operator (TOP), Transmission Planner, and Transmission Service Provider on May 29, 2007.

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.

**1401 H Street NW Suite 410
Washington, DC 20005
202-400-3000 | www.nerc.com**

NERC Notice of Penalty
DEF
December 29, 2022
Page 2

According to the Settlement Agreement, the Entity neither admits nor denies the violations, but has agreed to the assessed penalty of seventy-five thousand dollars (\$75,000), in addition to other remedies and 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 SERC 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 (2022), 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
SERC2019021762	PRC-001-1	R3	High/Lower	TOP	CA 6/27/19	7/26/12 – 5/14/18 ⁵	Moderate	\$75k
SERC2019021763	PRC-001-1	R5	High/Lower	TOP	CA 6/27/19	7/26/12 – 5/14/18 ⁵	Moderate	

Information About the Entity

DEF owns and operates transmission systems in Florida serving a peak load of approximately 9,468 MW. Additionally, DEF operates approximately 2,900 miles of transmission lines and 183 transmission substations above 100 kV. DEF has 62 Bulk Electric System (BES) interconnections between eight neighboring utility companies.

⁵ The violation end date of May 14, 2021 for NERC Violation IDs SERC2019021762 and SERC2019021763 listed in paragraphs 9 and 22 of the Settlement Agreement is incorrect. The correct violation end date for both violations is May 14, 2018.

NERC Notice of Penalty
DEF
December 29, 2022
Page 3

Executive Summary

The Entity violated two PRC Standard Requirements. Both violations were discovered by SERC during an Operations and Planning Audit that took place in June 2019. Both violations were the result of changes that DEF made to its protection systems (increasing the timing to 45 cycles on its zone 2 and zone 3 time distance relays) on July 26, 2012 and May 2, 2013 after completing re-conductoring projects on its Bradford West to Havana and Havana to Quincy 115 kV line. The changes that DEF made in 2012 and 2013 were within the neighboring TOP's zone of protection. DEF did not notify or coordinate with the neighboring TOP on these changes. On August 31, 2017, a fault occurred on DEF's Atwater to Quincy 115 kV transmission line, and due to the uncoordinated relay cycles, the neighboring TOP's breaker overreached and tripped for the fault prior to the Atwater breaker at Quincy operating, which led to a loss of 63 MW of radial load on the neighboring TOP's system.

PRC-001-1 R3 (SERC2019021762)

DEF failed to coordinate a protective system change with its neighboring TOP, as described above, which led to the loss of 63 MW of radial load on the neighboring TOP's system. DEF reviewed re-conductoring projects within its recent audit period of January 12, 2017 to February 11, 2019 and found no additional instances of noncompliance. Attachment 1 includes additional facts regarding the violation.

The causes of this violation were an insufficient procedure and modeling tool. DEF's procedures at the time of the projects required notification to the neighboring TOP if the work affected the buses at points of interconnections, but did not include work that extended past the points of interconnection, such as work that occurred within other zones of control of a neighboring TOP. DEF also did not have adequate modeling tools that could properly coordinate with busses away from the point of interconnection.

SERC determined this violation posed a moderate risk to the reliability of the bulk power system (BPS). Attachment 1 includes the facts regarding the violation that SERC considered in its risk assessment.

The Entity submitted its Mitigation Plan to address the referenced violation, with an expected completion date of July 8, 2020. Attachments 1 and 3 include a description of the mitigation activities the Entity took to address this violation.

NERC Notice of Penalty
DEF
December 29, 2022
Page 4

The Entity certified that it had completed all mitigation activities.⁶ SERC verified that the Entity had completed all mitigation activities. Attachment 5 provides specific information on SERC's verification of the Entity's completion of the mitigation activities.

PRC-001-1 R5 (SERC2019021763)

DEF failed to notify its neighboring TOP of a change in its transmission system prior to making the change when it could require changes to the neighboring TOP's protection systems. As part of the re-conductoring projects described above, DEF determined that there was an overall 2.33% increase in the fault current from the previous conductor. DEF reviewed re-conductoring projects within its recent audit period of January 12, 2017 to February 11, 2019 and found no additional instances of noncompliance. Attachment 1 includes additional facts regarding the violation.

The causes of this violation were insufficient procedures and processes and modeling tools. DEF's procedure/process at the time of the re-conductoring projects lacked specificity on when notifications for transmission changes were required to neighboring TOPs. As a result, the process allowed DEF staff to declare the 2.33% increase in fault current as a minimal change since the projects were not physically located on the border between DEF and the neighboring TOP, and therefore, refrain from notifying neighboring TOPs.

SERC determined this violation posed a moderate risk to the reliability of the BPS. Attachment 1 includes the facts regarding the violation that SERC considered in its risk assessment.

The Entity submitted its Mitigation Plan to address the referenced violation, with an expected completion date of July 8, 2020. Attachments 1 and 7 include a description of the mitigation activities the Entity took to address this violation.

The Entity certified that it had completed all mitigation activities.⁷ SERC will verify that the Entity has completed all mitigation activities and promptly report its successful completion to NERC.

⁶ The mitigation completion date of June 30, 2022 for NERC Violation ID SERC2019021762 listed in paragraph 13 of the Settlement Agreement is incorrect. The correct mitigation completion date is June 30, 2020, as noted in the entity's Certification of Mitigation Plan Completion (Attachment 4).

⁷ The mitigation completion date of June 30, 2022 for NERC Violation ID SERC2019021763 listed in paragraph 26 of the Settlement Agreement is incorrect. The correct mitigation completion date is June 30, 2020, as noted in the entity's Certification of Mitigation Plan Completion (Attachment 8).

NERC Notice of Penalty
DEF
December 29, 2022
Page 5

Regional Entity's Basis for Penalty

According to the Settlement Agreement, SERC has assessed a penalty of seventy-five thousand dollars (\$75,000) for the referenced violations. In reaching this determination, SERC considered the following factors:

1. The Entity was cooperative throughout the compliance enforcement process;
2. The Entity agreed to settle the violations;
3. There was no evidence of any attempt to conceal a violation nor evidence of intent to do so; and
4. There were no other mitigating or aggravating factors that would affect the assessed penalty or disposition method.

After consideration of the above factors, SERC determined that, in this instance, the penalty amount of seventy-five thousand dollars (\$75,000) is appropriate and bears a reasonable relation to the seriousness and duration of the violations.

Statement Describing the Assessed Penalty, Sanction, or Enforcement Action Imposed⁸

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,⁹ 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 SERC and the Entity and believes that the assessed penalty of seventy-five thousand dollars (\$75,000) is appropriate for the violations and circumstances at issue, and is consistent with NERC's goal to promote and ensure reliability of the BPS.

⁸ See 18 C.F.R. § 39.7(d)(4).

⁹ 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).

NERC Notice of Penalty
DEF
December 29, 2022
Page 6

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 SERC and the Entity executed November 4, 2022, included as Attachment 1;
2. Compliance Audit Screening Worksheet for PRC-001-1.1(ii) R3 dated June 27, 2019, included as Attachment 2;
3. The Entity's Mitigation Plan designated as SERCMIT015721 for PRC-001-1 R3 submitted July 19, 2022, included as Attachment 3;
4. The Entity's Certification of Mitigation Plan Completion dated August 8, 2022, included as Attachment 4;
5. SERC's Verification of Mitigation Plan Completion dated November 22, 2022, included as Attachment 5;
6. Compliance Audit Screening Worksheet for PRC-001-1.1(ii) R5 dated June 27, 2019, included as Attachment 6;
7. The Entity's Mitigation Plan designated as SERCMIT015722 for PRC-001-1 R5 submitted September 14, 2022, included as Attachment 7; and
8. The Entity's Certification of Mitigation Plan Completion dated October 7, 2022, included as Attachment 8.

NERC Notice of Penalty
DEF
December 29, 2022
Page 7

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>Holly Hawkins* General Counsel SERC Reliability Corporation 3701 Arco Corporate Drive, Suite 300 Charlotte, NC 28273 704-494-7775 hhawkins@serc1.org</p> <p>Jimmy C. Cline* Managing Counsel – Enforcement SERC Reliability Corporation 3701 Arco Corporate Drive, Suite 300 Charlotte, NC 28273 (704) 414-5259 (704) 357-7914 – facsimile jccline@serc1.org</p> <p>Courtney Ballard* Legal Counsel SERC Reliability Corporation 3701 Arco Corporate Drive, Suite 300 Charlotte, NC 28273 (704) 386-7951 (704) 357-7914 – facsimile cballard@serc1.org</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>Amy Engstrom* Associate Counsel North American Electric Reliability Corporation 1401 H Street NW, Suite 410 Washington, DC 20005 (202) 400-3000 (202) 644-8099 – facsimile amy.engstrom@nerc.net</p>
---	--

NERC Notice of Penalty

DEF

December 29, 2022

Page 8

George T. Hamrick*
Senior Vice President and Chief Transmission
Officer
Duke Energy Corporation
526 S. Church St.
Charlotte, NC 28202
980-373-8113
George.Hamrick@duke-energy.com

Danielle T. Bennett*
Deputy General Counsel
Duke Energy Business Services, LLC
410 S. Wilmington St.
NC20
Raleigh, NC 27601
919-546-5941
Dani.Bennett@duke-energy.com

Michael Anthony*
Director O&P Corporate Compliance
Duke Energy Business Services, LLC
410 S. Wilmington St.
NC20
Raleigh, NC 27601
919-546-5690
Michael.Anthony@duke-energy.com

NERC Notice of Penalty
DEF
December 29, 2022
Page 9

Conclusion

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

Respectfully submitted,

/s/ Amy Engstrom

James McGrane
Senior Counsel
Amy Engstrom
Associate 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
amy.engstrom@nerc.net

cc: Duke Energy Florida, LLC
SERC Reliability Corporation

Attachments

SETTLEMENT AGREEMENT
BETWEEN SERC RELIABILITY CORPORATION
AND
DUKE ENERGY FLORIDA, LLC¹

I. INTRODUCTION

1. SERC Reliability Corporation (SERC), on behalf of itself, and Duke Energy Florida, LLC² (DEF), enter into this Settlement Agreement (Agreement) to resolve Alleged Violations by DEF of the below-referenced Reliability Standard and Requirement.

Reliability Standard	Requirement	NERC Tracking No.
PRC-001-1	R3	SERC2019021762
PRC-001-1	R5	SERC2019021763

2. The Parties stipulate to the facts in this Agreement for the sole purpose of resolving the Alleged Violations. DEF neither admits nor denies that these facts constitute Alleged Violations of the above-referenced Reliability Standard Requirements.

II. OVERVIEW OF DUKE ENERGY FLORIDA

1. DEF owns and operates transmission systems in Florida serving a peak load of approximately 9,468 MW. Additionally, DEF operates approximately 2,900 miles of transmission lines and 183 transmission substations above 100 kV. DEF has 62 Bulk Electric System (BES) interconnections between eight neighboring utility companies.
2. DEF is registered on the NERC Compliance Registry as a Balancing Authority, Distribution Provider, Generator Owner, Generator Operator, Resource Planner, Transmission Owner, Transmission Operator (TOP), Transmission Service Provider, and Planning Authority/Planning Coordinator. DEF, in its capacity as a TOP, is responsible for compliance with the above-captioned Reliability Standard Requirements.

¹ NERC Registry ID No. NCR00063.

² DEF and Duke Energy Progress, LLC (NERC Registry ID No. NCR01298) are part of an existing multi-region registered entity (MRRE) agreement, MRRE group 15a. Under the terms of the MRRE that existed at the time the Alleged Violations were discovered, the Alleged Violations were assigned a NERC Violation ID connected to DEP; however the facts of the Alleged Violations are only attributed to DEF.

III. EXECUTIVE SUMMARY

3. This Agreement resolves two Alleged Violations of PRC-001-1. Both Alleged Violations were discovered by SERC during an Operations and Planning Audit that took place in June 2019. Both Alleged Violations are based on the same changes to its protection system that DEF made on July 26, 2012 and May 2, 2013.
4. SERC determined that the two Alleged Violations posed a moderate risk to the Bulk Power System (BPS). The changes that DEF made in 2012 and 2013 were within the neighboring TOP's zone of protection and failure to notify or coordinate with the neighboring TOP on changes could cause more BES facilities to be removed from service that what is necessary during fault conditions. Both Alleged Violations have extended durations due to the length of time between when DEF made changes to its system and when the mis-coordinated systems led to a loss of 63 MW of radial load on the neighboring TOP's system.
5. The causes of the Alleged Violations are attributed to insufficient procedures and modeling tools that existed at the time the protection system changes occurred. During that time, the procedures provided a limited approach on when DEF was required to notify the neighboring TOP of changes it made. Specifically, the procedures required notification when changes were made that affected busses at points of interconnection and when changes to fault currents were more than minimal. This approach, along with not having proper modeling tools to coordinate with busses away from the point of interconnection, prevented DEF from recognizing how even a small change may impact the coordination of the two systems. It also precluded the neighboring TOP's ability to analyze its own system settings in response to DEF's actions, as they were not notified that the changes occurred in the first place.
6. Thus, to mitigate the Alleged Violations, DEF focused on updating its procedures and processes to reflect a broader scope of changes that require DEF to notify and coordinate with its neighboring TOP, including when changes affect the zone of control of its neighboring TOPs. Additionally, DEF developed more advanced modeling tools that can automatically review settings for proper coordination. However, both PRC-001 R3 and R5 were retired after SERC's discovery of the Alleged Violations, and the scope of the compliance obligations contained within those standards were transitioned into PRC-027 R1 and TOP-003-4 R1, respectively. In response, DEF participated in the implementation plan for PRC-027 to ensure it included detailed requirements for coordinating with neighboring Generation and Transmission Owners. Also, DEF's current PRC-027 and TOP-003 procedures also include steps to coordinate with applicable personnel when there are protection system changes to aid in the notification and coordination with neighboring utilities.

IV. Penalty Adjustment factors

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

Internal Compliance Program

8. SERC considered DEF's Internal Compliance Program and considered it to be a neutral factor in the penalty determination.

Compliance History

9. SERC considered DEF's compliance history in determining the penalty and determined that it should not serve as a basis for aggravating the penalty. While, DEF's prior noncompliance in FRCC201000344 was related to deficient procedures, the deficiency at issue was related to tracking and storing coordination documentation. The changes made to the procedure would not have prevented the current violation as DEF personnel followed the procedure in the current instance, but the procedure did not include a more expanded view of when coordination needed to take place and gave deference to "minimal" changes and only looked at the point of interconnection, as the process was at the time.

Cooperation

10. DEF has been highly cooperative throughout the entire enforcement process relating to these Alleged Violations. Throughout the enforcement process, DEF voluntarily provided SERC with information that was timely, detailed, thoughtful, organized, and thorough. DEF fully cooperated in SERC's investigation of the violations and all associated mitigating activities and openly shared information regarding its processes, procedures, internal controls, assets, systems, and organization.

Settlement

11. DEF agreed to settle the Alleged Violations resolved by this Agreement. SERC is applying mitigating credit because it is important to promote prompt resolution of enforcement actions so that DEF's focus is on mitigation and reducing risks to reliability.

V. PENALTY AND SANCTIONS

12. Based upon the foregoing, DEF shall pay a monetary penalty of \$75,000.00 to SERC.
13. SERC shall present an invoice to DEF within 20 days after the Agreement is approved by the Federal Energy Regulatory Commission (Commission) or affirmed by operation of law. Upon receipt, DEF shall have 30 days to remit payment. SERC will notify NERC if it does not timely receive the payment from DEF.
14. If DEF fails to timely remit the monetary penalty to SERC, 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 SERC to DEF for the monetary penalty payment or (b) the 51st day after the Agreement is approved by the Commission of operation of law.

VI. ADDITIONAL TERMS

15. 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.
16. SERC 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 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 SERC will attempt to negotiate with DEF 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.
17. This Agreement binds the Parties upon execution and may only be altered or amended by written agreement executed by the Parties. DEF expressly waives its rights to any hearing or appeal concerning any matter set forth herein, unless and only to the extent that DEF contends that any NERC or Commission action constitutes a material modification to this Agreement.
18. SERC reserves all rights to initiate enforcement action against DEF in accordance with the NERC Rules of Procedure in the event that DEF fails to comply with any of the terms or conditions of this Agreement. DEF retains all rights to defend against such action in accordance with the NERC Rules of Procedure.
19. DEF consents to SERC'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 DEF or its affiliates' violation history. Such use may be in any enforcement action or compliance proceeding undertaken by NERC or any Regional Entity or both, provided however that DEF does 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 does DEF consent to the use of this Agreement by any other party in any other action or proceeding.
20. DEF affirms that all of the matters set forth in this Agreement are true and correct to the best of its knowledge, information, and belief, and that it understands that SERC enters into this Agreement in express reliance on the representations contained herein, as well as any other representations or information provided by DEF to SERC during any DEF interaction with SERC relating to the subject matter of this Agreement.
21. Upon execution of this Agreement, the Parties stipulate that the Possible Violations addressed herein constitute Alleged Violations. The Parties further stipulate that all

required, applicable information listed in Section 5.3 of the CMEP is included within this Agreement.

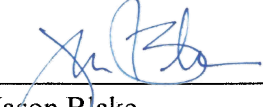
22. Each of the undersigned agreeing to and accepting this Agreement warrants that he or she is an authorized representative of the party designated below, is authorized to bind such party, and accepts the Agreement on the party's behalf.
23. The undersigned agreeing to and accepting this Agreement warrant 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.
24. The Agreement may be signed in counterparts.
25. This Agreement is executed in duplicate, each of which so executed shall be deemed to be an original.

SIGNATURE PAGE TO FOLLOW³

REMAINDER OF PAGE INTENTIONALLY LEFT BLANK

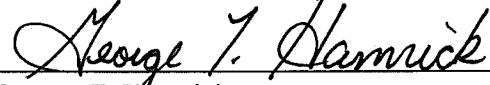
³ An electronic version of this executed document shall have the same force and effect as the original.

Agreed to and accepted by:



Jason Blake
President and Chief Executive Officer
SERC RELIABILITY CORPORATION

November 4, 2022
Date



George T. Hamrick
Senior Vice President and Chief Transmission Officer
DUKE ENERGY FLORIDA, LLC

NOVEMBER 3, 2022
Date

ATTACHMENT A

I. ALLEGED VIOLATIONS

A. PRC-001-1 R3 (SERC2019021762)

1. PRC-001-1 ensures that system protection is coordinated among operating entities.
2. PRC-001-1 R3 states:
 - R3. A Generator Operator or Transmission Operator shall coordinate new protective systems and changes as follows.
 - 3.1. Each Generator Operator shall coordinate all new protective systems and all protective system changes with its Transmission Operator and Host Balancing Authority.
 - 3.2. Each Transmission Operator shall coordinate all new protective systems and all protective system changes with neighboring Transmission Operators and Balancing Authorities.

Description of Alleged Violation and Risk Assessment for SERC2019021762

3. SERC determined that DEF was noncompliant with PRC-001-1 R3. DEF failed to coordinate a protective system change with its neighboring TOP.
4. On July 26, 2012 and May 2, 2013, DEF completed re-conductoring projects on its Bradford West to Havana and Havana to Quincy 115kV line. Following the project's completion, DEF determined changes were needed to the protection settings on the 115kV line between Atwater to Quincy. As a result, DEF made changes to zone 2 and zone 3 time distance relays, which increased the timing to 45 cycles. DEF did not coordinate these changes with its neighboring TOP, whose zone 3 protection remained at 42 cycles.
5. The neighboring TOP's zone 3 protection covers the Bradford West to Havanna 115kV line, including protection down to the 69kV side of the transformer at Bradford West. Additionally, the neighboring TOP's zone 3 protection also covers all of the Atwater to Quincy 115kV line as backup protection.
6. On August 31, 2017, a fault occurred on DEF's Atwater to Quincy 115kV transmission line. Due to the uncoordinated relay cycles, the neighboring TOP's breaker over-reached and tripped for the fault prior to the Atwater breaker at Quincy operating. This de-energized the remaining 69 kV source and led to a 63 MW loss of load on the neighboring TOP's system. On September 20, 2017, DEF and the neighboring TOP agreed to make revisions to their timing cycles. These revisions were completed on December 18, 2017, and May 14, 2018.
7. For its extent-of-condition, DEF reviewed re-conductoring projects within its recent audit period of January 12, 2017, through February 11, 2019, and found no additional instances of noncompliance.

8. The causes of the Alleged Violation were an insufficient procedure and modeling tool. DEF's procedure at the time of the re-conductoring projects required notification to the neighboring TOP if the work affected the buses at points of interconnections, but did not include work that extended past the points of interconnection, such as work that occurred within other zones of control of a neighboring TOP. Additionally, DEF did not have adequate modeling tools that could properly coordinate with busses away from the point of interconnection. As a result, the work performed in 2012 and 2013 that affected busses away from the point of interconnection was excluded from the procedures for coordinating with neighboring TOPs.
9. This Alleged Violation started on July 26, 2012, when DEF did not coordinate changes to its protection system with neighboring TOPs, and ended on May 14, 2021, when DEF completed coordinating changes to its protection system with neighboring TOP.
10. SERC determined that this Alleged Violation posed a moderate risk and did not pose a serious or substantial risk to the reliability of the BPS. Specifically, DEF's failure to coordinate protection systems with the neighboring TOP led to protection systems being mis-coordinated and operating in wrong zone. While this resulted in a loss of 63 MW of radial load, the loss occurred on the 69 kV side of the neighboring TOP's transformer. Additionally, this Alleged Violation did not pose a serious risk as it was a singular instance that was limited to a single section of a radial line, so any potential impact to the BPS was in a confined area.⁴

Mitigating Actions

11. On July 19, 2022, DEF submitted a Mitigation Plan addressing the Alleged Violation of PRC-001-1 R3. *See* Mitigation Plan SERCMIT015721. On October 13 2022, SERC accepted the Mitigation Plan.
12. To mitigate the Alleged Violation, DEF performed the following actions:
 - a. Issued and implemented setting changes to improve relay coordination;
 - b. Communicated investigation findings and lessons learned with regional P&C engineering subject matter experts;
 - c. Provided guidance to Transmission Engineering for all regions to determine when to coordinate with neighboring Transmission/Generation Owners when changes are made within the system;

⁴ PRC-001-1 R3 has a VRF of "High" pursuant to the VRF Matrix. According to the VSL Matrix, this noncompliance warranted a "Lower" VSL.

- d. Updated process documents to include coordination with neighboring Transmission/Generation Owners when changes affect the zone of control and communicate updates to P&C engineers (DEC, DECorp, DEP, and DEF);
 - e. Developed action plan to implement modeling tools that can automatically review settings for proper coordination (DEC, DECorp, DEP, and DEF); and
 - f. Participated in the Duke Energy Standard Assessment Implementation Plan group for the development of the new PRC-027-1 that replaces PRC-001-1 and includes detailed requirements for coordinating with neighboring Transmission/Generation Owners.
13. On August 8, 2022, DEF notified SERC that it completed this Mitigation Plan on June 30, 2022. See Certification of Mitigation Completion. SERC will verify DEF's completion of the Mitigation Plan and promptly report its successful completion to NERC.

B. PRC-001-1 R5 (SERC2019021763)

14. PRC-001-1 ensures that system protection is coordinated among operating entities.
15. PRC-001-1 R5 states:
- R5. A Generator Operator or Transmission Operator shall coordinate changes in generation, transmission, load or operating conditions that could require changes in the protection systems of others:
- 5.1. Each Generator Operator shall notify its Transmission Operator in advance of changes in generation or operating conditions that could require changes in the Transmission Operator's protection systems.
 - 5.2. Each Transmission Operator shall notify neighboring Transmission Operators in advance of changes in generation, transmission, load, or operating conditions that could require changes in the other Transmission Operators' protection systems.

Description of Alleged Violation and Risk Assessment for SERC2019021763

16. SERC determined that DEF was noncompliant with PRC-001-1 R5; R5.2. DEF did not notify its neighboring TOP of a change in its transmission system prior to making the change when it could require changes to the TOP's system.
17. On July 26, 2012 and May 2, 2013, DEF completed re-conductoring projects on its Bradford West to Havana and Havana to Quincy 115kV line. During the projects, DEF determined that there was an overall 2.33% increase in the fault current from the previous conductor.
18. The neighboring TOP's zone 3 protection covers the Bradford West to Havana 115kV line, including protection down to the 69kV side of the transformer at

Bradford West. Additionally, the neighboring TOP's zone 3 protection also covers all of the Atwater to Quincy 115kV line as backup protection.

19. On August 31, 2017, a fault occurred on DEF's Atwater to Quincy 115kV transmission line. The neighboring TOP's breaker over-reached and tripped for the fault prior to the Atwater breaker at Quincy operating. This de-energized the remaining 69 kV source and led to a 63 MW loss of load on the neighboring TOP's system. On September 20, 2017, DEF and the neighboring TOP agreed to make revisions to their settings for better coordination. These revisions were completed on December 18, 2017, and May 14, 2018.
20. For its extent-of-condition, DEF reviewed re-conductoring projects within its recent audit period of January 12, 2017, through February 11, 2019, and found no additional instances of noncompliance.
21. The causes of the Alleged Violation were insufficient procedures/processes and modeling tools. DEF's procedure/process at the time of the re-conductoring projects lacked specificity on when notifications for transmission changes were required to neighboring TOPs. As a result, the process allowed DEF staff to declare the 2.33% increase in fault current as a minimal change since the projects were not physically located on the border between DEF and the neighboring TOP, and therefore, refrain from notifying neighboring TOPs.
22. This Alleged Violation started on July 26, 2012, when DEF failed to notify its neighboring TOP of changes to the transmission system, and ended on May 14, 2021, when DEF coordinated changes to its transmission system with the neighboring TOP.
23. SERC determined that this Alleged Violation posed a moderate risk and did not pose a serious or substantial risk to the reliability of the BPS. Specifically, DEF's failure to notify its neighboring TOP, prevented the neighboring TOP from receiving sufficient information to review its systems and led to the transmission systems being mis-coordinated. While this resulted in a loss of 63 MW of radial load, this loss occurred on the 69 kV side of the neighboring TOP's transformer. Additionally, this violation did not pose a serious risk as it was a singular instance that was limited to a single section of a radial line, so any potential impact to the BPS was in a confined area.⁵

Mitigating Actions

⁵ PRC-001-1 R5 has a VRF of "High" pursuant to the VRF Matrix. The currently posted VSL Matrix and retired Standard as of the date of this agreement is ambiguous as to the VSL in place at the time the Alleged Violation occurred. As a result SERC determined that a VSL of "Lower" should apply pursuant to the VSL Matrix for TOP-003-4 R1, as that is the Standard and Requirement that would apply if the Alleged Violation occurred today.

24. On September 14, 2022, DEF submitted a Mitigation Plan addressing the Alleged Violation of PRC-001-1 R5. *See* Mitigation Plan SERCMIT015722. On October 13 2022, SERC accepted the Mitigation Plan.
25. To mitigate the Alleged Violation, DEF performed the following actions:
 - a. Updated process documents to include coordination with neighboring Transmission/Generation Owners when changes affect the zone of control and communicate updates to P&C engineers (DEC, DECorp, DEP, and DEF);
 - b. Developed action plan to implement modeling tools that can automatically review settings for proper coordination (DEC, DECorp, DEP, and DEF); and
 - c. Participated in the Duke Energy Standard Assessment Implementation Plan group for the development of the new PRC-027-1 that replaces PRC-001-1 and includes detailed requirements for coordinating with neighboring Transmission/Generation Owners.
26. On October 7 2022, DEF notified SERC that it completed this Mitigation Plan on June 30, 2022. *See* Certification of Mitigation Completion. SERC will verify DEF's completion of the Mitigation Plan and promptly report its successful completion to NERC.



Post On-site Audit/Off-site Audit/Spot Check/Investigation Screening Worksheet

Prepared By: Greg Tenley

Submittal Date: 6/27/2019

Compliance Monitoring Method (On-site Audit, Off-site Audit, Spot-Check, or Investigation):
On-site Audit

Registered Entity: Duke Energy Florida (DEF)

NERC Registry ID: NCR00063

Registered Entity Contact Information:

Name: Andy Ali

Email: Andy.Ali@duke-energy.com

Standard: PRC-001-1.1(ii)

Requirement: R3

Sub Requirement(s): 3.2

Function(s) Applicable to Possible Violation:

<input type="checkbox"/> BA	<input type="checkbox"/> TOP	<input checked="" type="checkbox"/> TO	<input type="checkbox"/> GO	<input type="checkbox"/> GOP
<input type="checkbox"/> DP	<input type="checkbox"/> TSP	<input type="checkbox"/> PA	<input type="checkbox"/> RP	<input type="checkbox"/> TP
<input type="checkbox"/> RSG	<input type="checkbox"/> RC			

Date violation occurred: 6/8/2013

Date violation discovered (Exit Presentation Date): 6/27/2019

Is the violation still occurring? ☐ Yes ☒ No

Are mitigating activities (including details to prevent reoccurrence) in progress or completed? ☐ Yes ☒ No

If yes, Provide description of Mitigating Activities:

Date Mitigating Activities are expected to be completed or were completed:



Detailed explanation and cause of violation:

Criteria: DEF shall coordinate all new protective systems and all protective system changes with neighboring Transmission Operators and Balancing Authorities.

Condition: DEF made changes in their protection systems which were within the zone of protection of a neighboring Transmission Operator, no coordination occurred between the entities. The protection system of the neighboring TOP is intended to provide back up protection to a 115/69kv transformer two busses away from the point of interconnection. Setting changes were made as result of a reconductoring project, specifically 10.89 miles Bradfordville West to Havana and 8.67 miles Havana to Quincy were upgraded in 2013 and 2012 respectively from 4/0 ACSR to 1272 ACSS/TW both circuits are within the zone of protection of the neighboring TOP. DEF made protective relay setting changes on the 115kV Quincy -Atwater line. Changes were made to zone 2 and zone 3 time distance relays increasing the timing to 45 cycles. There was no notification or coordination made to the neighboring TOP (Tallahassee) in advance of the changes. Tallahassee's zone 3 protection from their substation remained the same and was set at 42 cycles. Tallahassee's zone 3 protection covers the Bradford West - Havana 115kV line including protection down to the 69kV side of the transformer at Bradford West. It also covers all of the Quincy-Atwater 115kV line as backup protection.

Effect: The Florida Panhandle area of Duke Energy Florida (DEF) experienced a loss of about 62 MW of firm load on 8/31/2017. A fault on the Atwater to Quincy transmission circuit caused Atwater 115 kV breaker to trip. The breaker operation at Atwater coupled with a previous system reconfiguration led to 62 MW of load being fed radially. The same fault caused the remote breaker at Tallahassee TAL 3 substation to open, and deenergized the remaining 69kV source resulting in the loss of 62 MW of load. The relay at Tallahassee did not have proper coordination with Bradfordville West, Havana, and Quincy.

Potential Impact to the Bulk Power System (Minimal, Moderate, or Severe): Moderate

Actual Impact to the Bulk Power System (Minimal, Moderate, or Severe): Moderate

Detailed description of Potential Risk to Bulk Power System: TOP's are to ensure system protection is coordinated among operating entities. A lack of coordination could cause unintended operation or non-operation of an interconnected entity's protection, thus potentially having an adverse impact to the BPS.

Detailed description of Actual Risk to Bulk Power System: This lack of coordination caused the loss of 62 MW of load at the Tallahassee TAL substation. The protection system of the neighboring TOP is intended to provide back up protection to a 115/69kv transformer two busses away from the point of interconnection. Setting changes were made as result of a reconductoring project, specifically 10.89 miles Bradfordville West to Havana and 8.67 miles Havana to Quincy were upgraded in 2013 and 2012 respectively from 4/0 ACSR to 1272 ACSS/TW both circuits are within the zone of protection of the neighboring TOP

Additional Comments: DEF made rating changes to the Bradford West - Havana and the Quincy - Atwater Line which corrected the coordination problem with Tallahassee however DEF needs to address some internal controls that ensures notification is being sent to neighboring TOPs or BAs when changes are made to their protective systems or to the BES.



Non-Public and Confidential

Please complete the form as completely as possible and email to serccomply@serc1.org.

This item was signed by Andy Ali (andy.ali@duke-energy.com) on 7/19/2022

This item was marked ready for signature by Andy Ali (andy.ali@duke-energy.com) on 7/19/2022

MITIGATION PLAN REVISIONS

Requirement	NERC Violation IDs	Regional Violation Ids	Date Submitted	Status	Type	Revision Number
PRC-001-1 R3.	SERC2019021762	SERC2019-403788	11/05/2019	Revision Requested	Formal	
PRC-001-1 R3.	SERC2019021762	SERC2019-403788	12/09/2019	Revision Requested	Formal	1
PRC-001-1 R3.	SERC2019021762	SERC2019-403788	01/07/2020	Revision Requested	Formal	2
PRC-001-1 R3.	SERC2019021762	SERC2019-403788	07/19/2022	Region reviewing Mitigation Plan	Formal	3

SECTION A: COMPLIANCE NOTICES & MITIGATION PLAN REQUIREMENTS

A.1 Notices and requirements applicable to Mitigation Plans and this Submittal Form are set forth in "[Attachment A - Compliance Notices & Mitigation Plan Requirements](#)" to this form.

[Yes] A.2 I have reviewed Attachment A and understand that this Mitigation Plan Submittal Form will not be accepted unless this box is checked.

SECTION B: REGISTERED ENTITY INFORMATION

B.1 Identify your organization

Company Name:	Duke Energy Progress, LLC
Company Address:	526 South Church Street
	Charlotte, North Carolina 28202
Compliance Registry ID:	NCR01298

B.2 Identify the individual in your organization who will be the Entity Contact regarding this Mitigation Plan.

Name:	Andy Ali
-------	----------

SECTION C: IDENTIFICATION OF ALLEGED OR CONFIRMED VIOLATION(S) ASSOCIATED WITH THIS MITIGATION PLAN

C.1 This Mitigation Plan is associated with the following Alleged or Confirmed violation(s) of Reliability Standard listed below.

Standard:	PRC-001-1
-----------	-----------

Requirement	Regional ID	NERC Violation ID	Date Issue Reported
R3.	SERC2019-403788	SERC2019021762	6/27/2019

C.2 Identify the cause of the Alleged or Confirmed violation(s) identified above:

Modeling tools were inadequate to properly coordinate busses away from the point of interconnection.
A lack of procedural guidance for coordinating with neighboring entities for protective system setting changes not directly at a point of interconnection.

[Attachments \(\)](#)

C.3 Provide any additional relevant information regarding the Alleged or Confirmed violations associated with this MitigationPlan:

None

[Attachments \(\)](#)

SECTION D: DETAILS OF PROPOSED MITIGATION PLAN

D.1 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 Alleged or Confirmed violations identified above in Part C.1 of this form:

1. Issue setting changes to improve relay coordination
2. Implement setting changes
3. Communicate findings and LLs with regional P&C Engineering SMEs
4. Provide guidance to Transmission Engineering regions
5. DEC to update their process document
6. DECorp to update their process document
7. DEP to update their process document
8. DEF to update their process document
9. DECorp to communicate updates made to regional process
10. DEC to communicate updates made to regional process
11. DEP to communicate updates made to regional process
12. DEF to communicate updates made to regional process
13. DECorp to develop action plan to implement modeling tools
14. DEC to develop action plan to implement modeling tools
15. DEP to develop action plan to implement modeling tools
16. DEF to develop action plan to implement modeling tools
17. Participate in the Duke Energy (Standard Assessment Implementation Plan) SAIP group for the development of the new PRC-027-1

Attachments (19)

D.2 Provide the date by which full implementation of the Mitigation Plan will be, or has been, completed with respect to the Alleged or Confirmed violations identified above. State whether the Mitigation Plan has been fully implemented:

7/8/2020

D.3 Enter Milestone Activities, with due dates, that your organization is proposing, or has completed, for this Mitigation Plan:

Issue setting changes to improve relay coordination

Milestone Completed (Due: 10/6/2017 and Completed 10/6/2017)

Protection and Control (P&C) Engineering issued settings changes to DEF Transmission Construction Maintenance and Vegetation (CMV) to improve relay coordination

Implement setting changes

Milestone Completed (Due: 12/18/2017 and Completed 12/18/2017)

Setting changes were implemented to improve relay coordination

Communicate findings and LLs with regional P&C Engineering SMEs

Milestone Completed (Due: 8/14/2019 and Completed 8/7/2019)

Communicate investigation findings, lessons learned within the all regional P&C Engineering Subject Matter Experts.

Provide guidance to Transmission Engineering regions

Milestone Completed (Due: 1/23/2020 and Completed 1/20/2020)

Provide guidance for Transmission Engineering for all regions to determine when to coordinate with neighboring Transmission/Generation Owners when changes are made within the system. Guidance will also be evaluated by the PRC-027 SAIP team to incorporate

DEC to update their process document

Milestone Completed (Due: 2/7/2020 and Completed 1/29/2020)

DEC to update their process documents to incorporate guidance from Item 4.

DECorp to update their process documents

Milestone Completed (Due: 2/7/2020 and Completed 1/27/2020)

DECorp to update their process documents to incorporate guidance from Item 4.

DEP to update their process documents

Milestone Completed (Due: 2/7/2020 and Completed 1/27/2020)

DEP to update their process documents to incorporate guidance from Item 4

DEF to update their process documents

Milestone Completed (Due: 2/7/2020 and Completed 1/27/2020)

DEF to update their process documents to incorporate guidance from Item 4

DECorp to communicate updates made to regional process

Milestone Completed (Due: 3/7/2020 and Completed 2/20/2020)

DECorp to communicate with P&C Engineers on any changes made to regional process documents to address prior action items

DEC to communicate updates made to regional process

Milestone Completed (Due: 3/7/2020 and Completed 2/19/2020)

DEC to communicate with P&C Engineers on any changes made to regional process documents to address prior action items.

[DEP to communicate updates made to regional process](#)

Milestone Completed (Due: 3/7/2020 and Completed 2/27/2020)

DEP to communicate with P&C Engineers on any changes made to regional process documents to address prior action items

[DEF to communicate updates made to regional process](#)

Milestone Completed (Due: 3/7/2020 and Completed 3/3/2020)

DEF to communicate with P&C Engineers on any changes made to regional process documents to address prior action items

[DECorp to develop action plan to implement modeling tools](#)

Milestone Completed (Due: 4/8/2020 and Completed 3/27/2020)

DECorp to develop action plan to implement modeling tools that can automatically review settings for proper coordination

[DEC to develop action plan to implement modeling tools](#)

Milestone Completed (Due: 4/8/2020 and Completed 3/24/2020)

DEC to develop action plan to implement modeling tools that can automatically review settings for proper coordination.

[DEP to develop action plan to implement modeling tools](#)

Milestone Completed (Due: 4/8/2020 and Completed 3/30/2020)

DEP to develop action plan to implement modeling tools that can automatically review settings for proper coordination.

[DEF to develop action plan to implement modeling tools](#)

Milestone Completed (Due: 4/8/2020 and Completed 3/17/2020)

DEF to develop action plan to implement modeling tools that can automatically review settings for proper coordination.

[Participate in the Duke Energy \(Standard Assessment Implementation Plan\) SAIP group for the development of the new PRC-027-1](#)

Milestone Completed (Due: 7/8/2020 and Completed 6/30/2020)

Participate in the Duke Energy SAIP group for the development of the new PRC-027-1 standard, which becomes effective on 10/1/2020. This standard will replace PRC-001-1.1 (ii) and include detailed requirements for coordinating with neighboring Transmission/Generation Owners.

SECTION E: INTERIM AND FUTURE RELIABILITY RISK

E.1 Abatement of Interim BPS Reliability Risk: While your organization is implementing this Mitigation Plan the reliability of the Bulk Power Supply (BPS) may remain at higher risk or be otherwise negatively impacted until the plan is successfully completed. To the extent they are, or may be, known or anticipated: (i) identify any such risks or impacts; and (ii) discuss any actions that your organization is planning to take to mitigate this increased risk to the reliability of the BPS. (Additional detailed information may be provided as an attachment):

While Duke Energy is implementing this Mitigation Plan it has identified minimal risk or impact to the reliability of the BPS, because immediate awareness/communication of the investigation lessons learned has been shared with all other regional Subject Matter Experts. Therefore is no additional risk while the mitigation plan is being implemented.

[Attachments \(\)](#)

E.2 Prevention of Future BPS Reliability Risk: Describe how successful completion of this Mitigation Plan will prevent or minimize the probability that your organization incurs further risk of Alleged violations of the same or similar reliability standards requirements in the future. (Additional detailed information may be provided as an attachment):

Successful completion of this Mitigation Plan will prevent or minimize the probability that Duke incurs further risk of Alleged violations of the same or similar reliability standards requirements in the future because of updated procedures to reflect when to notify neighboring entities and new modeling tools that will help assist the engineers which entities are being impacted.

[Attachments \(\)](#)

SECTION F: AUTHORIZATION

An authorized individual must sign and date this Mitigation Plan Submittal Form. By doing so, this individual, on behalf of your organization:

- a) Submits this Mitigation Plan for acceptance by SERC and approval by NERC, and
- b) If applicable, certifies that this Mitigation Plan was completed on or before the date provided as the 'Date of Completion of the Mitigation Plan' on this form, and
- c) Acknowledges:
 - I am Andy Ali of Duke Energy Progress, LLC
 - I am qualified to sign this Mitigation Plan on behalf of Duke Energy Progress, LLC
 - I understand Duke Energy Progress, LLC's obligations to comply with Mitigation Plan requirements and ERO remedial action directives as well as ERO documents, including, but not limited to, the NERC Rules of Procedure, including Appendix 4 (Compliance Monitoring and Enforcement Program of the North American Electric Reliability Corporation (NERC CMEP))



- I have read and am familiar with the contents of this Mitigation Plan
- Duke Energy Progress, LLC agrees to comply with, this Mitigation Plan, including the timetable completion date, as accepted by SERC and approved by NERC

SECTION G: REGIONAL ENTITY CONTACT

SERC Single Point of Contact (SPOC)

VIEW MITIGATION PLAN CLOSURE: PRC-001-1 (MITIGATION PLAN CLOSURE COMPLETED)

 This item was signed by Andy Ali (andy.ali@duke-energy.com) on 8/8/2022 

 This item was marked ready for signature by Andy Ali (andy.ali@duke-energy.com) on 7/19/2022 

MEMBER MITIGATION PLAN CLOSURE

All Mitigation Plan Completion Certification submittals shall include data or information sufficient for SERC to verify completion of the Mitigation Plan. SERC may request such 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) Data or information submitted may become part of a public record upon final disposition of the possible violation, therefore any confidential information contained therein should be marked as such in accordance with the provisions of Section 1500 of the NERC Rules of Procedure.

Name of Registered Entity submitting certification:

Duke Energy Progress, LLC

Name of Standard of mitigation violation(s):

PRC-001-1

Requirement	Tracking Number	NERC Violation ID
R3.	SERC2019-403788	SERC2019021762

Date of completion of the Mitigation Plan:

6/30/2020

[Issue setting changes to improve relay coordination](#)

Milestone Completed (Due: 10/6/2017 and Completed 10/6/2017)

[Attachments \(1\)](#)

Protection and Control (P&C) Engineering issued settings changes to DEF Transmission Construction Maintenance and Vegetation (CMV) to improve relay coordination

[Implement setting changes](#)

Milestone Completed (Due: 12/18/2017 and Completed 12/18/2017)

[Attachments \(1\)](#)

Setting changes were implemented to improve relay coordination

[Communicate findings and LLs with regional P&C Engineering SMEs](#)

Milestone Completed (Due: 8/14/2019 and Completed 8/7/2019)

[Attachments \(1\)](#)

Communicate investigation findings, lessons learned within the all regional P&C Engineering Subject Matter Experts.

[Provide guidance to Transmission Engineering regions](#)

Milestone Completed (Due: 1/23/2020 and Completed 1/20/2020)

[Attachments \(1\)](#)

Provide guidance for Transmission Engineering for all regions to determine when to coordinate with neighboring Transmission/Generation Owners when changes are made within the system. Guidance will also be evaluated by the PRC-027 SAIP team to incorporate

[DEC to update their process document](#)

Milestone Completed (Due: 2/7/2020 and Completed 1/29/2020)

[Attachments \(1\)](#)

DEC to update their process documents to incorporate guidance from Item 4.

[DECorp to update their process documents](#)

Milestone Completed (Due: 2/7/2020 and Completed 1/27/2020)

[Attachments \(1\)](#)

DECorp to update their process documents to incorporate guidance from Item 4.

[DEP to update their process documents](#)

Milestone Completed (Due: 2/7/2020 and Completed 1/27/2020)

[Attachments \(1\)](#)

DEP to update their process documents to incorporate guidance from Item 4

[DEF to update their process documents](#)

Milestone Completed (Due: 2/7/2020 and Completed 1/27/2020)
[Attachments \(1\)](#)

DEF to update their process documents to incorporate guidance from Item 4

[DEC to communicate updates made to regional process](#)

Milestone Completed (Due: 3/7/2020 and Completed 2/20/2020)
[Attachments \(2\)](#)

DEC to communicate with P&C Engineers on any changes made to regional process documents to address prior action items

[DEC to communicate updates made to regional process](#)

Milestone Completed (Due: 3/7/2020 and Completed 2/19/2020)
[Attachments \(1\)](#)

DEC to communicate with P&C Engineers on any changes made to regional process documents to address prior action items.

[DEP to communicate updates made to regional process](#)

Milestone Completed (Due: 3/7/2020 and Completed 2/27/2020)
[Attachments \(1\)](#)

DEP to communicate with P&C Engineers on any changes made to regional process documents to address prior action items

[DEF to communicate updates made to regional process](#)

Milestone Completed (Due: 3/7/2020 and Completed 3/3/2020)
[Attachments \(1\)](#)

DEF to communicate with P&C Engineers on any changes made to regional process documents to address prior action items

[DEC to develop action plan to implement modeling tools](#)

Milestone Completed (Due: 4/8/2020 and Completed 3/27/2020)
[Attachments \(2\)](#)

DEC to develop action plan to implement modeling tools that can automatically review settings for proper coordination

[DEC to develop action plan to implement modeling tools](#)

Milestone Completed (Due: 4/8/2020 and Completed 3/24/2020)
[Attachments \(1\)](#)

DEC to develop action plan to implement modeling tools that can automatically review settings for proper coordination.

[DEP to develop action plan to implement modeling tools](#)

Milestone Completed (Due: 4/8/2020 and Completed 3/30/2020)
[Attachments \(1\)](#)

DEP to develop action plan to implement modeling tools that can automatically review settings for proper coordination.

[DEF to develop action plan to implement modeling tools](#)

Milestone Completed (Due: 4/8/2020 and Completed 3/17/2020)
[Attachments \(1\)](#)

DEF to develop action plan to implement modeling tools that can automatically review settings for proper coordination.

[Participate in the Duke Energy \(Standard Assessment Implementation Plan\) SAIP group for the development of the new PRC-027-1](#)

Milestone Completed (Due: 7/8/2020 and Completed 6/30/2020)
[Attachments \(1\)](#)

Participate in the Duke Energy SAIP group for the development of the new PRC-027-1 standard, which becomes effective on 10/1/2020. This standard will replace PRC-001-1.1 (ii) and include detailed requirements for coordinating with neighboring Transmission/Generation Owners.

Summary of all actions described in Part D of the relevant mitigation plan:

1. Issue setting changes to improve relay coordination
2. Implement setting changes
3. Communicate findings and LLs with regional P&C Engineering SMEs
4. Provide guidance to Transmission Engineering regions
5. DEC to update their process document
6. DEC to update their process document
7. DEP to update their process document
8. DEF to update their process document
9. DEC to communicate updates made to regional process
10. DEC to communicate updates made to regional process
11. DEP to communicate updates made to regional process
12. DEF to communicate updates made to regional process
13. DEC to develop action plan to implement modeling tools
14. DEC to develop action plan to implement modeling tools
15. DEP to develop action plan to implement modeling tools
16. DEF to develop action plan to implement modeling tools
17. Participate in the Duke Energy (Standard Assessment Implementation Plan) SAIP group for the development of the new PRC-027-1

Description of the information provided to SERC for their evaluation *

Successful completion of the milestones outlined above will prevent or minimize the probability that Duke incurs further risk of Alleged violations of the same or similar reliability standards requirements in the future because of updated procedures to reflect when to notify neighboring entities and new modeling tools that will help assist the engineers which entities are being impacted.

I certify that the Mitigation Plan for the above-named violation has been completed on the date shown above. In doing so, I certify that all required Mitigation Plan actions described in Part D of the relevant Mitigation Plan have been completed, compliance has been restored, the above-named entity is currently compliant with all of the requirements of the referenced standard, and that all information submitted is complete, true and correct to the best of my knowledge.



SERC RELIABILITY CORPORATION

CONFIDENTIAL

November 22, 2022

VIA EMAIL

Melissa Feldmeier
VP, Chief Ethics and Compliance Officer
Duke Energy Progress, LLC
526 South Church Street
Charlotte, NC 28202
Melissa.Feldmeier@duke-energy.com

Re: Notice of Verification of Mitigation Plan Completion
NERC Registry ID: NCR01298
SERC Violation ID: SERC2019-403788
NERC Violation ID: SERC2019021762

SERC Reliability Corporation (SERC) hereby provides notice to Duke Energy Progress, LLC (DEP) that it has verified completion of the mitigation plan in connection with the instance of noncompliance listed above.

DEP is required to maintain evidence related to the remediated violation until the Notice of Completion of Enforcement Action letter is received from SERC Enforcement.

Please include the SERC Violation ID indicated above in any correspondence with SERC regarding this matter. Please contact the SPOC if you have questions or concerns.

cc: SERC Compliance Reporting System
NERC Compliance Reporting System
Duane Davidson, Duane.Davidson@duke-energy.com



Post On-site Audit/Off-site Audit/Spot Check/Investigation Screening Worksheet

Prepared By: Greg Tenley

Submittal Date: 6/27/2019

Compliance Monitoring Method (On-site Audit, Off-site Audit, Spot-Check, or Investigation):
On-site Audit

Registered Entity: Duke Energy Florida (DEF)

NERC Registry ID: NCR00063

Registered Entity Contact Information:

Name: Andy Ali

Email: Andy.Ali@duke-energy.com

Standard: PRC-001-1.1(ii)

Requirement: R5

Sub Requirement(s): 5.2

Function(s) Applicable to Possible Violation:

<input type="checkbox"/> BA	<input checked="" type="checkbox"/> TOP	<input type="checkbox"/> TO	<input type="checkbox"/> GO	<input type="checkbox"/> GOP
<input type="checkbox"/> DP	<input type="checkbox"/> TSP	<input type="checkbox"/> PA	<input type="checkbox"/> RP	<input type="checkbox"/> TP
<input type="checkbox"/> RSG	<input type="checkbox"/> RC			

Date violation occurred: 6/8/2013

Date violation discovered (Exit Presentation Date):

Is the violation still occurring? ☐ Yes ☒ No

Are mitigating activities (including details to prevent reoccurrence) in progress or completed? ☐ Yes ☐ No

If yes, Provide description of Mitigating Activities:

Date Mitigating Activities are expected to be completed or were completed:



Detailed explanation and cause of violation:

Criteria: DEF shall notify neighboring Transmission Operators in advance of changes in generation, transmission, load, or operating conditions that could require changes in the other Transmission Operators' Protection Systems.

Condition: DEF reconductored two transmission lines which were within the zone of protection of a neighboring Transmission Operator. Specifically, 10.89 miles Bradfordville West to Havana and 8.67 miles Havana to Quincy were upgraded in 2013 and 2012 respectively from 4/0 ACSR to 1272 ACSS/TW, both circuits are within the zone of protection of the neighboring TOP. There was no notification or coordination made to the neighboring TOP in advance of the changes.

Effect: The Florida Panhandle area of Duke Energy Florida (DEF) experienced a loss of about 62 MW of firm load on 8/31/2017. A fault on the Atwater to Quincy transmission circuit caused Atwater 115 kV breaker to trip. The breaker operation at Atwater coupled with a previous system reconfiguration led to 62 MW of load being fed radially. The same fault caused the remote breaker at Tallahassee TAL 3 substation to open, and deenergized the remaining 69kV source resulting in the loss of 62 MW of load. The relay at Tallahassee did not have proper coordination with Bradfordville West, Havana, and Quincy

Potential Impact to the Bulk Power System (Minimal, Moderate, or Severe): Severe

Actual Impact to the Bulk Power System (Minimal, Moderate, or Severe): Severe

Detailed description of Potential Risk to Bulk Power System: TOP's are to ensure system protection is coordinated among operating entities. A lack of coordination could cause unintended operation or non-operation of an interconnected entity's protection, thus potentially having an adverse impact to the BPS.

Detailed description of Actual Risk to Bulk Power System: Changes made in transmission could impact the current relay coordination and settings and can cause more BES facilities to be removed from service than what is necessary during fault conditions. This lack of coordination resulted in the loss of 62 MW of load at the Tallahassee TAL substation. The protection system of the neighboring TOP is intended to provide back up protection to a 115/69kv transformer two busses away from the point of interconnection.

Additional Comments: DEF made rating changes to the Bradford West - Havana and the Quincy - Atwater Line which corrected the coordination problem with Talahassee however DEF needs to address some internal controls that ensures notification is being sent to neighboring TOPs or BAs when changes are made to their protective systems or to the BES.

This item was signed by Mike Anthony (michael.anthony@duke-energy.com) on 9/14/2022

This item was marked ready for signature by Mike Anthony (michael.anthony@duke-energy.com) on 9/14/2022

MITIGATION PLAN REVISIONS

Requirement	NERC Violation IDs	Regional Violation Ids	Date Submitted	Status	Type	Revision Number
PRC-001-1 R5.	SERC2019021763	SERC2019-403789		Revision Requested	Informal	
PRC-001-1 R5.	SERC2019021763	SERC2019-403789	09/14/2022	Region reviewing Mitigation Plan	Formal	1

SECTION A: COMPLIANCE NOTICES & MITIGATION PLAN REQUIREMENTS

A.1 Notices and requirements applicable to Mitigation Plans and this Submittal Form are set forth in "[Attachment A - Compliance Notices & Mitigation Plan Requirements](#)" to this form.

[Yes] A.2 I have reviewed Attachment A and understand that this Mitigation Plan Submittal Form will not be accepted unless this box is checked.

SECTION B: REGISTERED ENTITY INFORMATION

B.1 Identify your organization

Company Name:	Duke Energy Progress, LLC
Company Address:	526 South Church Street
	Charlotte, North Carolina 28202
Compliance Registry ID:	NCR01298

B.2 Identify the individual in your organization who will be the Entity Contact regarding this Mitigation Plan.

Name: Andy Ali

SECTION C: IDENTIFICATION OF ALLEGED OR CONFIRMED VIOLATION(S) ASSOCIATED WITH THIS MITIGATION PLAN

C.1 This Mitigation Plan is associated with the following Alleged or Confirmed violation(s) of Reliability Standard listed below.

Standard: PRC-001-1

Requirement	Regional ID	NERC Violation ID	Date Issue Reported
R5.	SERC2019-403789	SERC2019021763	6/27/2019

C.2 Identify the cause of the Alleged or Confirmed violation(s) identified above:

Modeling tools were inadequate to properly coordinate busses away from the point of interconnection.
A lack of procedural guidance for coordinating with neighboring entities for protective system setting changes not directly at a point of interconnection.

[Attachments \(\)](#)

C.3 Provide any additional relevant information regarding the Alleged or Confirmed violations associated with this MitigationPlan:

None

[Attachments \(\)](#)

SECTION D: DETAILS OF PROPOSED MITIGATION PLAN

D.1 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 Alleged or Confirmed violations identified above in Part C.1 of this form:

1. DEC to update their process document
2. DECorp to update their process document
3. DEP to update their process document
4. DEF to update their process document
5. DECorp to communicate updates made to regional process
6. DEC to communicate updates made to regional process
7. DEP to communicate updates made to regional process
8. DEF to communicate updates made to regional process
9. DECorp to develop action plan to implement modeling tools
10. DEC to develop action plan to implement modeling tools
11. DEP to develop action plan to implement modeling tools
12. DEF to develop action plan to implement modeling tools
13. Participate in the Duke Energy (Standard Assessment Implementation Plan) SAIP group for the development of the new PRC-027-1

Attachments ()

D.2 Provide the date by which full implementation of the Mitigation Plan will be, or has been, completed with respect to the Alleged or Confirmed violations identified above. State whether the Mitigation Plan has been fully implemented:

7/8/2020

D.3 Enter Milestone Activities, with due dates, that your organization is proposing, or has completed, for this Mitigation Plan:

DEC to update their process document

Milestone Completed (Due: 2/7/2020 and Completed 1/29/2020)

DEC to update their process document

DECorp to update their process document

Milestone Completed (Due: 2/7/2020 and Completed 1/27/2020)

DECorp to update their process document

DEP to update their process document

Milestone Completed (Due: 2/7/2020 and Completed 1/27/2020)

DEP to update their process document

DEF to update their process document

Milestone Completed (Due: 2/7/2020 and Completed 1/27/2020)

DEF to update their process document

DECorp to communicate updates made to regional process

Milestone Completed (Due: 3/7/2020 and Completed 2/20/2020)

DECorp to communicate with P&C Engineers on any changes made to regional process documents to address prior action items

DEC to communicate updates made to regional process

Milestone Completed (Due: 3/7/2020 and Completed 2/19/2020)

DEC to communicate with P&C Engineers on any changes made to regional process documents to address prior action items.

DEP to communicate updates made to regional process

Milestone Completed (Due: 3/7/2020 and Completed 2/27/2020)

DEP to communicate with P&C Engineers on any changes made to regional process documents to address prior action items

DEF to communicate updates made to regional process

Milestone Completed (Due: 3/7/2020 and Completed 3/3/2020)

DEF to communicate with P&C Engineers on any changes made to regional process documents to address prior action items

DECorp to develop action plan to implement modeling tools

Milestone Completed (Due: 4/8/2020 and Completed 3/27/2020)

DECorp to develop action plan to implement modeling tools that can automatically review settings for proper coordination

DEC to develop action plan to implement modeling tools

Milestone Completed (Due: 4/8/2020 and Completed 3/24/2020)

DEC to develop action plan to implement modeling tools that can automatically review settings for proper coordination

DEP to develop action plan to implement modeling tools

Milestone Completed (Due: 4/8/2020 and Completed 3/30/2020)

DEP to develop action plan to implement modeling tools that can automatically review settings for proper coordination.

[DEF to develop action plan to implement modeling tools](#)

Milestone Completed (Due: 4/8/2020 and Completed 3/17/2020)

DEF to develop action plan to implement modeling tools that can automatically review settings for proper coordination.

[Participate in the Duke Energy \(Standard Assessment Implementation Plan\) SAIP group for the development of the new PRC-027-1](#)

Milestone Completed (Due: 7/8/2020 and Completed 6/30/2020)

Participate in the Duke Energy SAIP group for the development of the new PRC-027-1 standard, which becomes effective on 10/1/2020. This standard will replace PRC001-1.1 (ii) and include detailed requirements for coordinating with neighboring Transmission/Generation Owners.

SECTION E: INTERIM AND FUTURE RELIABILITY RISK

E.1 Abatement of Interim BPS Reliability Risk: While your organization is implementing this Mitigation Plan the reliability of the Bulk Power Supply (BPS) may remain at higher risk or be otherwise negatively impacted until the plan is successfully completed. To the extent they are, or may be, known or anticipated: (i) identify any such risks or impacts; and (ii) discuss any actions that your organization is planning to take to mitigate this increased risk to the reliability of the BPS. (Additional detailed information may be provided as an attachment):

While Duke Energy is implementing this Mitigation Plan it has identified minimal risk or impact to the reliability of the BPS, because immediate awareness/communication of the investigation lessons learned has been shared with all other regional Subject Matter Experts. Therefore is no additional risk while the mitigation plan is being implemented.

[Attachments \(\)](#)

E.2 Prevention of Future BPS Reliability Risk: Describe how successful completion of this Mitigation Plan will prevent or minimize the probability that your organization incurs further risk of Alleged violations of the same or similar reliability standards requirements in the future. (Additional detailed information may be provided as an attachment):

Successful completion of this Mitigation Plan will prevent or minimize the probability that Duke incurs further risk of Alleged violations of the same or similar reliability standards requirements in the future because of updated procedures to reflect when to notify neighboring entities and new modeling tools that will help assist the engineers which entities are being impacted.

[Attachments \(\)](#)

SECTION F: AUTHORIZATION

An authorized individual must sign and date this Mitigation Plan Submittal Form. By doing so, this individual, on behalf of your organization:

- a) Submits this Mitigation Plan for acceptance by SERC and approval by NERC, and
- b) If applicable, certifies that this Mitigation Plan was completed on or before the date provided as the 'Date of Completion of the Mitigation Plan' on this form, and
- c) Acknowledges:
 - I am Mike Anthony of Duke Energy Progress, LLC
 - I am qualified to sign this Mitigation Plan on behalf of Duke Energy Progress, LLC
 - I understand Duke Energy Progress, LLC's obligations to comply with Mitigation Plan requirements and ERO remedial action directives as well as ERO documents, including, but not limited to, the NERC Rules of Procedure, including Appendix 4 (Compliance Monitoring and Enforcement Program of the North American Electric Reliability Corporation (NERC CMEP))
 - I have read and am familiar with the contents of this Mitigation Plan
 - Duke Energy Progress, LLC agrees to comply with, this Mitigation Plan, including the timetable completion date, as accepted by SERC and approved by NERC


SECTION G: REGIONAL ENTITY CONTACT

SERC Single Point of Contact (SPOC)

VIEW MITIGATION PLAN CLOSURE: PRC-001-1 (MITIGATION PLAN CLOSURE COMPLETED)

 This item was signed by Andy Ali (andy.ali@duke-energy.com) on 10/7/2022



 This item was marked ready for signature by Andy Ali (andy.ali@duke-energy.com) on 10/7/2022

**MEMBER MITIGATION PLAN CLOSURE**

All Mitigation Plan Completion Certification submittals shall include data or information sufficient for SERC to verify completion of the Mitigation Plan. SERC may request such 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) Data or information submitted may become part of a public record upon final disposition of the possible violation, therefore any confidential information contained therein should be marked as such in accordance with the provisions of Section 1500 of the NERC Rules of Procedure.

Name of Registered Entity submitting certification:

Duke Energy Progress, LLC

Name of Standard of mitigation violation(s):

PRC-001-1

Requirement	Tracking Number	NERC Violation ID
R5.	SERC2019-403789	SERC2019021763

Date of completion of the Mitigation Plan:

6/30/2020

[DEC to update their process document](#)

Milestone Completed (Due: 2/7/2020 and Completed 1/29/2020)

[Attachments \(0\)](#)

DEC to update their process document

[DECorp to update their process document](#)

Milestone Completed (Due: 2/7/2020 and Completed 1/27/2020)

[Attachments \(0\)](#)

DECorp to update their process document

[DEP to update their process document](#)

Milestone Completed (Due: 2/7/2020 and Completed 1/27/2020)

[Attachments \(0\)](#)

DEP to update their process document

[DEF to update their process document](#)

Milestone Completed (Due: 2/7/2020 and Completed 1/27/2020)

[Attachments \(0\)](#)

DEF to update their process document

[DECorp to communicate updates made to regional process](#)

Milestone Completed (Due: 3/7/2020 and Completed 2/20/2020)

[Attachments \(0\)](#)

DECorp to communicate with P&C Engineers on any changes made to regional process documents to address prior action items

[DEC to communicate updates made to regional process](#)

Milestone Completed (Due: 3/7/2020 and Completed 2/19/2020)

[Attachments \(0\)](#)

DEC to communicate with P&C Engineers on any changes made to regional process documents to address prior action items.

[DEP to communicate updates made to regional process](#)

Milestone Completed (Due: 3/7/2020 and Completed 2/27/2020)

[Attachments \(0\)](#)

DEP to communicate with P&C Engineers on any changes made to regional process documents to address prior action items

[DEF to communicate updates made to regional process](#)

Milestone Completed (Due: 3/7/2020 and Completed 3/3/2020)
[Attachments \(0\)](#)

DEF to communicate with P&C Engineers on any changes made to regional process documents to address prior action items

[DEC to develop action plan to implement modeling tools](#)

Milestone Completed (Due: 4/8/2020 and Completed 3/27/2020)
[Attachments \(0\)](#)

DEC to develop action plan to implement modeling tools that can automatically review settings for proper coordination

[DEC to develop action plan to implement modeling tools](#)

Milestone Completed (Due: 4/8/2020 and Completed 3/24/2020)
[Attachments \(0\)](#)

DEC to develop action plan to implement modeling tools that can automatically review settings for proper coordination

[DEP to develop action plan to implement modeling tools](#)

Milestone Completed (Due: 4/8/2020 and Completed 3/30/2020)
[Attachments \(0\)](#)

DEP to develop action plan to implement modeling tools that can automatically review settings for proper coordination.

[DEF to develop action plan to implement modeling tools](#)

Milestone Completed (Due: 4/8/2020 and Completed 3/17/2020)
[Attachments \(0\)](#)

DEF to develop action plan to implement modeling tools that can automatically review settings for proper coordination.

[Participate in the Duke Energy \(Standard Assessment Implementation Plan\) SAIP group for the development of the new PRC-027-1](#)

Milestone Completed (Due: 7/8/2020 and Completed 6/30/2020)
[Attachments \(0\)](#)

Participate in the Duke Energy SAIP group for the development of the new PRC-027-1 standard, which becomes effective on 10/1/2020. This standard will replace PRC 001-1.1 (ii) and include detailed requirements for coordinating with neighboring Transmission/Generation Owners.

Summary of all actions described in Part D of the relevant mitigation plan:

1. Issue setting changes to improve relay coordination
2. Implement setting changes
3. Communicate findings and LLs with regional P&C Engineering SMEs
4. Provide guidance to Transmission Engineering regions
5. DEC to update their process document
6. DECorp to update their process document
7. DEP to update their process document
8. DEF to update their process document
9. DECorp to communicate updates made to regional process
10. DEC to communicate updates made to regional process
11. DEP to communicate updates made to regional process
12. DEF to communicate updates made to regional process
13. DECorp to develop action plan to implement modeling tools
14. DEC to develop action plan to implement modeling tools
15. DEP to develop action plan to implement modeling tools
16. DEF to develop action plan to implement modeling tools
17. Participate in the Duke Energy (Standard Assessment Implementation Plan) SAIP group for the development of the new PRC-027-1

Description of the information provided to SERC for their evaluation *

Successful completion of the milestones outlined above will prevent or minimize the probability that Duke incurs further risk of Alleged violations of the same or similar reliability standards requirements in the future because of updated procedures to reflect when to notify neighboring entities and new modeling tools that will help assist the engineers which entities are being impacted.

I certify that the Mitigation Plan for the above-named violation has been completed on the date shown above. In doing so, I certify that all required Mitigation Plan actions described in Part D of the relevant Mitigation Plan have been completed, compliance has been restored, the above-named entity is currently compliant with all of the requirements of the referenced standard, and that all information submitted is complete, true and correct to the best of my knowledge.