NERC
NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION

February 27, 2020

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 Sierra Pacific Power Company, FERC Docket No. NP20-_-000**

Dear Ms. Bose:

The North American Electric Reliability Corporation (NERC) hereby provides this Notice of Penalty[1] regarding Sierra Pacific Power Company (SPPC), NERC Registry ID# NCR05390,[2] with information and details regarding the nature and resolution of the violations[3] discussed in detail in the Settlement Agreement attached hereto (Attachment 1), 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)).[4]

NERC is filing this Notice of Penalty with the Commission because Western Electricity Coordinating Council (WECC) and SPPC have entered into a Settlement Agreement to resolve all outstanding issues arising from WECC's determination and findings of one serious risk violation of the Facilities Design, Connections, and Maintenance (FAC) Reliability Standards, and one moderate risk violation of the Voltage and Reactive (VAR) Reliability Standards.

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[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] SPPC was included on the NERC Compliance Registry as a Distribution Provider (DP), Generator Owner (GO), Generator Operator (GOP), Planning Authority/Planning Coordinator (PA/PC), Resource Planner (RP), Transmission Owner (TO), Transmission Operator (TOP, Transmission Planner (TP), and Transmission Service Provider (TSP) on June 17, 2007.

[3] 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.

[4] *See* 18 C.F.R § 39.7(c)(2) and 18 C.F.R § 39.7(d).

According to the Settlement Agreement, SPPC admitted to the violations and agreed to the assessed penalty of one hundred and fifty-three thousand dollars ($153,000), 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 WECC and SPPC. The details of the findings and basis for the penalty are set forth in the Settlement Agreement and herein. This Notice of Penalty filing contains the basis for approval of the Settlement Agreement by the NERC Board of Trustees Compliance Committee (NERC BOTCC).

In accordance with Section 39.7 of the Commission's regulations, 18 C.F.R. § 39.7 (2019), 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
WECC2016016683	FAC-009-1	R1	Medium/ Severe	GO, TO	SR 12/14/2016	6/18/2007- 1/27/2017	Serious	$153k
WECC2018020109	VAR-002-4	R2	Medium/ Severe	GOP	SR 7/22/2018	4/10/2017- 8/17/2018	Moderate	

FACTS COMMON TO VIOLATIONS

SPPC and Nevada Power Company (NEVP), which is the subject of an accompanying Notice of Penalty, merged in 1999 and operate as subsidiaries under the NV Energy brand owned by Berkshire Hathaway Energy, whose other holdings include PacifiCorp and MidAmerican Energy.

FAC-009-1 R1

WECC determined that SPPC had deficiencies in its established Facility Ratings for its solely and jointly owned Facilities. The established Facility Ratings did not include all applicable Facilities, nor did they include all required series Elements. Overall, 92 of SPPC's 210 Facilities had incorrect or no established Facility Ratings. Of the 92 Facilities, 50 Facilities, including 42 transmission lines, 6 transformers, and 2 Phase Shifters, exceeded the correct Facility Rating by an average of 130%. One of the transmission lines was a 345 kV line on a WECC Major Transfer Path. Attachment 1 includes additional facts regarding the violation.

The cause of the violation was a lack of an effective process for implementation of compliance and interpretation of the Reliability Standard. Specifically, SPPC did not define clear roles and responsibilities for ensuring compliance with the Standard. Additionally, SPPC did not maintain Facility Rating information in a consistent manner, nor did it effectively implement a communication process across different business units regarding Facility Ratings and the use of its Facility Ratings Methodology.

WECC determined that this violation posed a serious and substantial risk to the reliability of the Bulk Power System (BPS). Attachment 1 includes the facts regarding the violation that WECC considered in its risk assessment.

SPPC submitted its Mitigation Plan to address the referenced violation. Attachment 1 includes a description of the mitigation activities SPPC took to address this violation. A copy of the Mitigation Plan is included as Attachment 3.

SPPC certified that it had completed all mitigation activities. WECC has verified that SPPC had completed all mitigation activities as of June 30, 2017. Attachment 5 provides specific information on WECC's verification of SPPC's completion of the activities.

VAR-002-4 R2

WECC determined that SPPC exceeded the voltage schedule bandwidth provided by the Transmission Operator (TOP). During a quarterly compliance review and subsequent internal investigation, SPPC discovered a total of 30 exceedances of the voltage schedule bandwidth provided by the TOP at two generation Facilities with nameplate ratings of 271 MVA (eight exceedances) and 630 MVA (22 exceedances), respectively. Attachment 1 includes additional facts regarding the violation.

The cause of this violation was a lack of clear instructions, training, or guidelines as to how to maintain, review, and report to meet the established voltage schedule from the TOPs.

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

SPPC completed mitigating activities to address the referenced violation. Attachment 1 includes a description of the mitigation activities SPPC took to address this violation. SPPC certified that it had completed all mitigation activities, and WECC verified that SPPC had completed all mitigation activities on March 28, 2019.

Regional Entity's Basis for Penalty

According to the Settlement Agreement, WECC has assessed a penalty of one hundred and fifty-three thousand dollars ($153,000) for the referenced violations. In reaching this determination, WECC considered the following factors:

1. SPPC was cooperative throughout the compliance enforcement process;
2. SPPC self-reported the above violations in a timely manner from the date of discovery;
3. SPPC accepted responsibility and admitted to these violations;
4. SPPC agreed to settle these violations and penalty;
5. The violation of FAC-009-1 R1 posed a serious and substantial risk to the reliability of the BPS;
6. The violation of VAR-002-4 R2 posed a moderate risk to the reliability of the BPS;
7. There were no other mitigating or aggravating factors or extenuating circumstances that would affect the assessed penalty.

After consideration of the above factors, WECC determined that, in this instance, the penalty amount of one hundred and fifty-three thousand dollars ($153,000) is appropriate and bears a reasonable relation to the seriousness and duration of the violations.

Statement Describing the Assessed Penalty, Sanction, or Enforcement Action Imposed[5]

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] the NERC BOTCC reviewed the violations on February 4, 2020 and approved the resolution between WECC and SPPC. In approving the resolution, the NERC BOTCC reviewed the applicable requirements of the Commission-approved Reliability Standards and the underlying facts and circumstances of the violations at issue.

For the foregoing reasons, the NERC BOTCC approved the resolution and believes that the assessed penalty of one hundred and fifty-three thousand dollars ($153,000) 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.

[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).*

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 WECC and SPPC executed November 25, 2019, included as Attachment 1;
2. SPPC's Self-Report for FAC-009-1 R1 dated December 14, 2016, included as Attachment 2;
3. SPPC's Mitigation Plan designated as WECCMIT012951 for FAC-009-1 R1 submitted June 1, 2017, included as Attachment 3;
4. SPPC's Certification of Mitigation Plan Completion for FAC-009-1 R1 submitted June 1, 2017, included as Attachment 4;
5. WECC's Verification of Mitigation Plan Completion for FAC-009-1 R1 dated June 30, 2017, included as Attachment 5; and
6. SPPC's Self-Report for VAR-002-4 R2 dated July 22, 2018, included as Attachment 6.

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

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. Melanie Frye President and Chief Executive Officer Western Electricity Coordinating Council 155 North 400 West, Suite 200 Salt Lake City, UT 84103 (801) 883-6882 (801) 883-6894 – facsimile mfrye@wecc.org Ruben Arredondo* Senior Legal Counsel Western Electricity Coordinating Council 155 North 400 West, Suite 200 Salt Lake City, UT 84103 (801) 819-7674 (801) 883-6894 – facsimile rarredondo@wecc.org Heather Laws* Director of Enforcement Western Electricity Coordinating Council 155 North 400 West, Suite 200 Salt Lake City, UT 84103 (801) 819-7642 (801) 883-6894 – facsimile hlaws@wecc.org	Edwin G. Kichline* Senior Counsel and Director of Enforcement Oversight North American Electric Reliability Corporation 1325 G Street NW Suite 600 Washington, DC 20005 (202) 400-3000 (202) 644-8099 – facsimile edwin.kichline@nerc.net James McGrane* Senior Counsel North American Electric Reliability Corporation 1325 G Street NW Suite 600 Washington, DC 20005 (202) 400-3000 (202) 644-8099 – facsimile james.mcgrane@nerc.net

Brandon Barkhuff* VP, General Counsel, Chief Compliance Officer Nevada Power Company 6226 W. Sahara Ave M/S 03A Las Vegas, NV 89146 (702) 402-2764 BBarkhuff@nvenergy.com Shahzad Lateef* VP, Transmission Nevada Power Company PO Box 98910 Las Vegas, NV 89151 (702) 402-6601 (702) 402-6631 – facsimile SLateef@nvenergy.com	

Conclusion

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

Respectfully submitted,

/s/ James McGrane

Edwin G. Kichline
Senior Counsel and Director of Enforcement Oversight
James McGrane
Senior Counsel
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edwin.kichline@nerc.net
james.mcgrane@nerc.net

cc: Sierra Pacific Power Company
Western Electricity Coordinating Council

Attachments

Attachment 1
Settlement Agreement by and between WECC and
SPPC executed November 25, 2019

WECC
Electric Reliability and Security for the West

[redacted]
Heather M. Laws
Director, Enforcement
801-819-7642
hlaws@wecc.org

November 5, 2019

Brandon Barkhuff
VP, General Counsel, Chief Compliance Officer
Sierra Pacific Power Company
6226 W. Sahara Ave, M/S 03B
Las Vegas, NV 89146

Subject: Notice of Expedited Settlement Agreement

Brandon Barkhuff,

I. Introduction

The Western Electricity Coordinating Council (WECC) hereby notifies Sierra Pacific Power Company (SPPC) NCR05261 that WECC identified Possible Violations of North American Electric Reliability Corporation (NERC) Reliability Standards (Reliability Standards) in the Preliminary Screen process and that based on an assessment of the facts and circumstances of the Possible Violations addressed herein, evidence exists that SPPC has Alleged Violations of the Reliability Standards.

WECC reviewed the Alleged Violations referenced below and determined that these violations are appropriate violations for disposition through the Expedited Settlement process. In determining whether to exercise its discretion to use the Expedited Settlement process, WECC considered all facts and circumstances related to the violations.

This Notice of Expedited Settlement Agreement (Notice) notifies SPPC of the proposed penalty and/or sanction for such violations. By this Notice, WECC reminds SPPC to retain and preserve all data and records relating to the Alleged Violations.

II. Alleged Violations

Standard Requirement	NERC Violation ID	WECC Violation ID
FAC-009-1 R1	WECC2016016683	WECC2016-614244
VAR-002-4 R2	WECC2018020109	WECC2018-615025

The attached Expedited Settlement Agreement includes a summary of the facts and evidence supporting each Alleged Violation, as well as the basis on which the penalty and/or sanction were determined.

III. Proposed Penalty or Sanction

Pursuant to the Federal Energy Regulatory Commission's (FERC or Commission) regulations and orders, NERC Rules of Procedure, and the NERC Sanction Guidelines, WECC proposes to assess a penalty for the violations of the Reliability Standards referenced in the Attachment in the amount of $153,000.

In determining a penalty and/or sanction, WECC considers various factors that may include, but are not limited to: (1) Violation Risk Factor; (2) Violation Severity Level; (3) risk to the reliability of the Bulk Electric System (BES)[1], including the seriousness of the violation; (4) Violation Time Horizon and timeliness of remediation; (5) the violation's duration; (6) the Registered Entity's compliance history; (7) the timeliness of the Registered Entity's self-report; (8) the degree and quality of cooperation by the Registered Entity in the audit or investigation process, and in any remedial action; (9) the quality of the Registered Entity's Internal Compliance Program; (10) any attempt by the Registered Entity to conceal the violation or any related information; (11) whether the violation was intentional; (12) any other relevant information or extenuating circumstances; (13) whether the Registered Entity admits to and takes responsibility for the violation; (14) "above and beyond" actions and investments made by the Registered Entity in an effort to prevent recurrence of this issue and/or proactively address and reduce reliability risk due to similar issues; and (15) the Registered Entity's ability to pay a penalty, as applicable.

WECC's determination of penalties is guided by the statutory requirement codified at 16 U.S.C. § 824o(e)(6) that any penalty imposed "shall bear a reasonable relation to the seriousness of the violation and shall take into consideration the efforts of [the Registered Entity] to remedy the violation in a timely manner." In addition, WECC considers all other applicable guidance from NERC and FERC.

IV. Procedures for Registered Entity's Response

If SPPC accepts WECC's proposal that the violations listed in the Settlement Agreement be processed through the Expedited Settlement process, SPPC must sign the attached Settlement Agreement and

[1] "The Commission, the ERO, and the Regional Entities will continue to enforce Reliability Standards for facilities that are included in the Bulk Electric System." (*Revision to Electric Reliability Organization Definition of Bulk Electric System*, 113 FERC ¶ 61,150 at P 100 (Nov. 18, 2010))

submit it through the WECC Enhanced File Transfer (EFT) Server Enforcement folder **within 15 calendar days from the date of this Notice**.

If SPPC does not accept WECC's proposal, SPPC must submit a written rejection, through the EFT Server, **within 15 calendar days from the date of this Notice**, informing WECC of the decision not to accept WECC's proposal.

If SPPC rejects this proposal or does not respond **within 15 business days,** WECC will issue a Notice of Alleged Violation and Proposed Penalty or Sanction.

V. Conclusion

In all correspondence, please provide the name and contact information of a representative from SPPC who is authorized to address the above-listed Alleged Violations and who is responsible for providing the required Mitigation Plans. Please also list the relevant NERC Violation Identification Numbers in any correspondence.

Responses or questions regarding the Settlement Agreement to Katherine Bennett, Senior Enforcement Analyst, at 801-883-6850 or kbennett@wecc.org.

Sincerely,

Heather M. Laws
Director, Enforcement

cc: NERC Enforcement

Attachment

EXPEDITED SETTLEMENT AGREEMENT

OF

WESTERN ELECTRICITY COORDINATING COUNCIL

AND

SIERRA PACIFIC POWER COMPANY

Western Electricity Coordinating Council (WECC) and Sierra Pacific Power Company (SPPC) (individually a "Party" or collectively the "Parties") agree to the following:

1. SPPC admits to the violations of the NERC Reliability Standards listed below.

2. The violations addressed herein will be considered Confirmed Violations as set forth in the NERC Rules of Procedure.

3. The terms of this Settlement Agreement, including the agreed upon payment, are subject to review and possible revision by NERC and FERC. If either NERC or FERC rejects the Settlement Agreement, then WECC will attempt to negotiate a revised Settlement Agreement with SPPC that includes any changes to the Settlement Agreement specified by NERC or FERC. If the Parties cannot reach a Settlement Agreement, the CMEP governs the enforcement process.

4. The Parties have agreed to enter into this Settlement Agreement to avoid extended litigation with respect to the matters described or referred to herein, to avoid uncertainty, and to effectuate a complete and final resolution of the issues set forth herein. The Parties agree that this Settlement Agreement is in the best interest of each Party and in the best interest of Bulk Power System (BPS) reliability.

5. This Settlement Agreement represents a full and final disposition of the violations listed below, subject to approval or modification by NERC and FERC. SPPC waives its right to further hearings and appeal; unless and only to the extent that SPPC contends that any NERC or FERC action on this Settlement Agreement contains one or more material modifications to this Settlement Agreement.

6. In the event SPPC fails to comply with any of the terms set forth in this Settlement Agreement, WECC will initiate enforcement, penalty, and/or sanction actions against SPPC to the maximum extent allowed by the NERC Rules of Procedure, up to the maximum statutorily allowed penalty. Except as otherwise specified in this Settlement Agreement, SPPC shall retain all rights to defend against such enforcement actions, in accordance with the NERC Rules of Procedure.

7. This Settlement Agreement shall be governed by and construed under federal law. This Settlement Agreement and all terms and stipulations set forth herein shall become effective upon FERC's approval of the Agreement by order or operation of law.

8. This Settlement Agreement contains the full and complete understanding of the Parties regarding all matters set forth herein. The Parties agree that this Settlement Agreement reflects all terms and conditions regarding all matters described herein and no other promises, oral or written, have been made that are not reflected in this Settlement Agreement.

9. Each of the undersigned warrants that he or she is an authorized representative of the Party identified, is authorized to bind such Party and accepts the Settlement Agreement on that Party's behalf.

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

11. To settle these matters, SPPC hereby agrees to pay $153,000 to WECC via wire transfer or cashier's check. SPPC shall make the funds payable to a WECC account identified in a Notice of Payment Due that WECC will send to SPPC upon approval of this Settlement Agreement by NERC and FERC. SPPC shall issue the payment to WECC no later than thirty days after receipt of the Notice of Payment Due. If this payment is not timely received, WECC shall assess, and SPPC agrees to pay, an interest charge calculated according to the method set forth at 18 CFR §35.19(a)(2)(iii) beginning on the 31st day following issuance of the Notice of Payment Due.

12. In addition, SPPC must submit Mitigation Plans within 30 calendar days from the date of this Settlement Agreement, if it has not already done so previously.

13. NOW, THEREFORE, in consideration of the terms set forth herein the Parties stipulate to the following:

A. NERC RELIABILITY STANDARD FAC-009-1 REQUIREMENT 1
NERC VIOLATION ID: WECC2016016683
WECC VIOLATION ID: WECC2016-614244

STANDARD

1. NERC Reliability Standard FAC-009-1 Requirement 1 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*.

VIOLATION FACTS

2. On December 14, 2016, SPPC submitted a Self-Report stating that, as a Generator Owner (GO) and Transmission Owner (TO), it was in potential noncompliance with FAC-008-3 R6. However, WECC determined the start date of the noncompliance predates FAC-008-3 R6 and is therefore changed to FAC-009-1 R1.

3. Specifically, from July 1, 2016 to September 19, 2016, as part of an effort to implement internal controls, SPPC conducted and completed an internal technical assessment its established Facility Ratings for its solely and jointly owned Facilities. The intent of the technical assessment was to ensure that all SPPC Bulk Electric System (BES) Facilities and all Elements were accounted for in the Facility Rating documentation, and the ratings established matched or were consistent with the rating process within SPPC's Facility Rating Methodology. As a result of this technical assessment, SPPC determined that its Facility Ratings were deficient in that they not include all applicable Facilities, nor did they include all required series Elements in the determination of Facility Ratings. Specifically, SPPC's technical assessment concluded that:

- Nine jointly owned transmission lead lines interconnecting NEVP's transmission system to Independent Power Producers, one jointly owned transmission line, and one solely owned transmission line did not have established Facility Ratings;
- Wave traps and relay settings were not taken into consideration for Facility Ratings for transmission lines 200 kV and above;
- Current Transformers (CT) were not included in its Facility Ratings;
- SPPC did not take into account recent changes to the system for two transmission lines, specifically, when a new substation folded into the middle of a transmission line, the Facility Rating did not reflect this change;
- The lead lines from the high side bushing of its generator step-up (GSU) transformers to the interconnected SPPC owned substations did not have established Facility Ratings; and
- Facility Ratings were not established for its series and shunt compensation devices.

4. Overall, SPPC had 92 of its 210 Facilities with incorrect or no established Facility Ratings. Of the 92 Facilities, 50 Facilities, including 42 transmission lines, 6 transformers and two-Phase Shifters exceeded the correct Facility Rating by 130%. One of the transmission lines was a 345 kV line on a WECC Major Transfer Path.

5. The root cause of the violation was attributed to SPPC not having an effective process for implementation of compliance and interpretation of the Standard, and its subsequent versions. Specifically, SPPC did not define clear roles and responsibilities for ensuring compliance with the Standard. Additionally, SPPC did not maintain Facility Rating information in a consistent manner nor did it effectively implement a communications process across different business units regarding Facility Ratings and the use of its Facility Ratings Methodology.

6. This violation began on June 18, 2007, when the Standard became mandatory and enforceable, and ended on January 27, 2017, when it corrected its Facility Ratings for its solely and jointly owned Facilities in scope, for a total of 3,512 days of noncompliance.

RELIABILITY RISK ASSESSMENT

7. WECC determined this violation posed a serious and substantial risk to the reliability of the Bulk Power System (BPS). In this instance, SPPC failed to establish Facility Ratings for 92 of its 210 solely and/or jointly owned Facilities spread across its entire system that were consistent with the associated Facility Ratings Methodology, per FAC-009-1 R1. Such failures could have led to the overloading of a BES Element and resulted in the loss of SPPC's Facilities or Protection Systems as well as causing neighboring Facilities and Protection Systems to not operate as intended, ultimately leading to outages. SPPC did not have effective preventative or detective controls to prevent or detect the violation timely.

8. However, as compensation, SPPC also uses a Real-Time Contingency Analyzer (RTCA) that ran every five minutes, which would have notified the System Operators of an SOL exceedance. Additionally, the transformers included winding and top oil temperature alarms that would have provided additional awareness in the event equipment overheated. Further, even though the lead lines from the high side bushing of SPPC's generator step up (GSU) transformers to its interconnecting substations did not have established ratings, the lead lines were designed to exceed the full rating of the generating plant. Lastly, SPPC's series and shunt compensations devices as well as its interconnecting equipment, were designed to exceed their own inherent capabilities.

REMEDIATION AND MITIGATION

9. On January 1, 2017 SPPC submitted a Mitigation Plan to address its violation and on June 30, 2017 WECC accepted SPPC's Mitigation Plan.

10. To remediate and mitigate this violation, SPPC has:

a. established Facility Ratings for its solely and jointly owned Facilities consistent with its Facility Rating Methodology;
b. verified all equipment data that comprised its Facility Ratings;
c. created a workbook that contains all of SPPC's transmission Facility Ratings and several automated features and simplified references;
d. reviewed industry best practices for Facility Ratings from three different parties in relation to their processes, tables, assumptions, roles, and responsibilities;
e. reviewed and peer checked data and methods at applicable Facilities to ensure proper Facility Ratings;
f. defined clear personnel roles and responsibilities in relation to establishing correct Facility Ratings within two internal process documents;
g. created a Facility Rating change control processes through an internal data collection form to ensure Facility Ratings remain accurate and properly applied. Specifically, the internal data collection form is used to capture Facility Ratings associated with new BES equipment installation and is required to be filled out prior to submission to internal management;
h. conducted additional training on the Facility Rating change control process, with groups responsible for BES Element changes and responsibilities of the department personnel including: NERC Compliance Implementation Manager, Transmission Planning Engineer, Director of Transmission Planning, Electric Delivery Managers of Major Projects, and the Senior Project Manager;
i. conducted additional training on the Facility Rating change control process with additional responsible personnel including: Director of NERC Compliance, NERC Compliance Implementation Manager, Manager of Network Engineering, Senior Engineers- Network, Senior Compliance Engineer- NERC Compliance, Compliance Implementation Manager- Electric Delivery, Substation Design Managers, Transmission Planning Engineer, Director of Transmission Planning, Civil and Transmission Engineering Manager, System Protection Engineering Managers;
j. conducted training on the addition of a compliance tool for improving necessary communication that must occur during new projects related to Facility Ratings requirements, attendees included: the NERC Compliance Department, leadership from Project Management, Substations and Technical Operations, and the Supervision of Vegetation Management
k. created an internal task force to ensure that Facility Ratings are properly reflected in subsequent ratings/settings to follow Reliability Standards.

11. On June 1, 2017 SPPC submitted a Mitigation Plans Completion Certifications and on June 20, 2017 WECC verified SPPC's completion of the Mitigation Plans.

B. NERC RELIABILITY STANDARD VAR-002-4 REQUIREMENT 2

NERC VIOLATION ID: WECC2018020109
WECC VIOLATION ID: WECC2018-615025

STANDARD

14. NERC Reliability Standard VAR-002-4 Requirement 2 states:

> R2. *Unless exempted by the Transmission Operator, each Generator Operator shall maintain the generator voltage or Reactive Power schedule (within each generating Facility's capabilities) provided by the Transmission Operator, or otherwise shall meet the conditions of notification for deviations from the voltage or Reactive Power schedule provided by the Transmission Operator.*

VIOLATION FACTS

15. On July 22, 2018, SPPC submitted a Self-Report stating that, as a Generator Operator (GOP), it was in potential noncompliance with VAR-002-4 R2. However, WECC determined the start date of the noncompliance predatesVAR-002-4.1 R2 and it is therefore changed to VAR-002-4 R2.

16. On October 26, 2017, during a quarterly compliance review with VAR-002-4.1 R2, SPPC identified exceedances of the voltage schedule bandwidth provided by the TOP. The exceedances of the voltage schedule were based on incorrect methods employed by plant personnel to take voltage readings.

17. On January 25, 2018, SPPC discovered Facilities, one 271 MVA generation Facility and one 630 MVA generation Facility, with exceedances of the voltage schedule bandwidth provided by the TOP. Specifically, between April 10, 2017 and September 13, 2017, SPPC's 271 MVA generation Facility deviated from the TOP's generator voltage schedule eight times with a maximum deviation of 1.15% for six hours. Between June 25, 2017 and August 17, 2018, SPPC's 630 MVA generation Facility deviated from the TOP's generator voltage schedule 22 times with a maximum deviation of .96% for 22 days and 1 hour when the 630 MVA generation Facility voltage schedule deviated from the voltage schedule by 0.42% to 0.96%

18. The root cause of the violation was attributed to the lack of clear instructions, training, or guidelines as to how to maintain, review and report, to meet the established voltage schedule from the TOPs. This violation began on April 10, 2017 when one of SPPC's Facilities deviated from the TOPs generator voltage schedule, and ended on August 17, 2018, when SPPC

maintained the generator voltage schedule as provided by its TOP, for all the affected generation Facilities, for a total of 495 days of noncompliance.

RELIABILITY RISK ASSESSMENT

19. WECC determined this violation posed a moderate risk and did not pose a serious and substantial risk to the reliability of the BPS. In this instance, SPPC failed to maintain the generator voltage schedule provided by the TOP 30 times total, as well as failed to meet the conditions of notification for deviations from the voltage or Reactive Power schedule provided by the TOP as required by VAR-002-4 R2. Such failures could have result in SPPC operating above SOLs established by the TOP, which in turn could have caused overloading or instability issues in the localized area. Instability issues could lead to loss of the Facility or a nearby Facility, the generating Facilities were a 630 MVA Facility and a 271 MVA Facility, potentially affecting potentially affecting 901 MVA.

20. SPPC did not have effective preventive controls, which resulted in 30 deviations from the TOP's generator voltage schedule. This is considered a systemic issue because there was a lack of consistency in SPPC's approach to meeting the voltage schedule. However, as compensation, the voltage tolerance bandwidth of +/- 0.5% is a conservative value. The TOP does not alarm for the exceedance of an emergency voltage level set point for SPPC's TOP's generator voltage schedule tolerance bandwidth exceedances until the voltage schedule at a generation Facility exceeds a bandwidth of +/- 5%. The TOP determined that +/- 5% level as a threshold that could potentially affect the BES. Furthermore, SPPC's maximum voltage deviation for these instances was 1.15%, which is less than +/- 5%. Furthermore, SPPC's maximum voltage deviation for these instances was 2.27%, which is less than +/- 5%. it was identified that the voltage schedule bandwidth defined by SPPC was too conservative and was increased to 2.00% after these instances of noncompliance.

REMEDIATION AND MITIGATION

21. On January 28, 2019, SPPC completed mitigating activities to address its violation and on March 28, 2019, WECC verified completion of its mitigating activities.

22. To remediate and mitigate this violation, SPPC has:
    a. followed the TOP's generator voltage schedule provide for the two Facilities at issue;
    b. revised its internal generation procedure for maintaining network voltage schedules to include language for the control room operator to maintain generator voltage or reactive power schedule to address VAR-002-4.1 R2;

c. revised its internal generation procedure for maintaining network voltage schedules to include language to address the criterion, location of measurement, and process for properly reviewing generation voltage data against the defined voltage and language on uploading daily voltage logs and the responsibility for reviewing these logs;
d. provided an in-house training that focused on the responsibilities of AVR and PSS within the NERC Reliability Standard, specifically focusing on including the proper measurement process for taking voltage measurements for VAR-002-4.1 and on the tracking methods used at each Facility;
e. required an annual training for all generation Facility personnel via a computer-based training application;
f. trained personnel at the 271 MVA generation Facility on generation procedure and AVR-PSS relationships within the NERC Reliability Standards;
g. additional personnel at the 630 MVA generation Facility were authorized as Users to view the voltage schedules on the ESCC SharePoint website, in order to have access to the current TOP voltage schedules;
h. the Generation Compliance Manager provided training to plant leadership, who disseminated the training to their control room operators at the 630 MVA generation Facility on NERC guidelines relating to voltage control;
i. updated hot and cold startup documentation for the 630 MVA generation Facility to require review and verification of generator voltage within the voltage schedule bandwidth provided by its TOP, and to adjust voltage as necessary to meet its tolerance bandwidth, when startup was completed and the unit is stable;
j. the Generation Compliance Manager provided training to plant leadership, who disseminated the training to their trained Plant Operators to maintain voltage within the voltage schedule at the 271 MVA generation Facility;
k. updated the daily midnight responsibilities at the 630 MVA Facility to include a checklist that includes ensuring that the generator voltage in the Voltage Control Log reflects the current voltage schedule and bandwidth by verifying through the ESCC SharePoint that the generator voltage is within the voltage schedule setpoint tolerance range;
l. created a pop-up warning textbox whenever a voltage reading entry is outside of the Facility's voltage schedule bandwidth; and
m. updated the voltage schedule tolerances for all the generating units at the 271 MVA generation Facility to +/- 2.0%.

PENALTY AND/OR SANCTION

12. WECC determined the proposed penalty of $153,000 ($96,000 for the FAC-009-1 R1 violation and $57,000 for the VAR-002-4 R2 violation) is appropriate for the following reasons:

a. Base penalty factors:

i. The Violation Risk Factor (VRF), Violation Severity Level (VSL), and risk to the reliability of the BPS are as described in Table 1:

Table 1

NERC Violation ID	Standard & Requirement	VRF	VSL	Risk to the Reliability of the BPS
WECC2016016683	FAC-009-1 R1	Medium	Severe	Serious
WECC2018020109	VAR-002-4 R2	Medium	Severe	Moderate

The duration of each violation is described in Table 2:

Table 2

NERC Violation ID	Standard & Requirement	Start Date	End Date	Duration in Days
WECC2016016683	FAC-009-1 R1	6/18/2007	1/27/2017	3,512
WECC2018020109	VAR-002-4 R2	4/10/2017	8/17/2018	495

ii. These violations each have a violation time horizon expectation for remediation which are described in Table 3:

Table 3

NERC Violation ID	Standard & Requirement	Violation time horizon	Expectation for remediation
WECC2016016683	FAC-009-1 R1	Operations Planning	Actions required from day-ahead up to and including seasonal
WECC2018020109	VAR-002-4 R2	Real time operations	Actions required within one hour or less to preserve the reliability of the bulk electric system.

b. WECC applied a mitigating credit for the following reasons:

i. SPPC was cooperative throughout the process.

ii. SPPC self-reported the above violations in a timely manner, 87 days from discovery for the FAC-009-1 R1 violation and 179 days from discovery for the VAR-002-4 R2 violation.
iii. SPPC accepted responsibility and admitted to the violation.
iv. SPPC agreed to settle these violations and penalty.

c. Other Considerations:
   i. WECC did not apply mitigating credit for SPPC's Internal Compliance Program (ICP). Although SPPC has a documented ICP, WECC determined that the ICP was not effective in preventing the violations or detecting them in a timely manner.
   ii. SPPC's affiliate company has a previous violation of FAC-009-1 R1, NERC Violation ID: WECC200800831 but WECC determined it should not be aggravating due to different root cause, and facts and circumstances of the instant violation.
   iii. SPPC does not have any relevant compliance history with VAR-002-4 R2.
   iv. SPPC did not fail to complete any applicable compliance directives.
   v. There was no evidence of any attempt by SPPC to conceal the violation
   vi. There was no evidence that violation was intentional. SPPC submitted all requested documentation and/or mitigation plans timely.
   vii. WECC determined there were no other aggravating factors warranting a penalty higher than the proposed penalty.

[Remainder of page intentionally left blank - signatures affixed to following page]

Agreed to and Accepted by:

WESTERN ELECTRICITY COORDINATING COUNCIL

Heather M. Laws
Director, Enforcement

11-25-19
Date

SIERRA PACIFIC POWER COMPANY

Name: Brandon M. Barkhuff
Title: VP, General Counsel, Chief Compliance Officer

11/18/2019
Date

Attachment 2
SPPC's Self-Report of Violation of FAC-009-1 R1
submitted December 14, 2016

Self Report

Entity Name: Sierra Pacific Power Company (SPPC)

NERC ID: NCR05390

Standard: FAC-008-3

Requirement: FAC-008-3 R6.

Date Submitted: December 14, 2016

Has this violation previously been reported or discovered?: No

Entity Information:

Joint Registration Organization (JRO) ID:

Coordinated Functional Registration (CFR) ID:

Contact Name: Eric Schwarzrock

Contact Phone: 7758344345

Contact Email: ESchwarzrock@nvenergy.com

Violation:

Violation Start Date: January 01, 2013

End/Expected End Date: January 13, 2017

Region Initially Determined a Violation On:

Reliability Functions: Transmission Owner (TO)

Is Possible Violation still occurring?: Yes

Number of Instances: 1

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

Which Regions:

Date Reported to Regions:

Detailed Description and Cause of Possible Violation: Please see attached 'FAC-008-3 Self-Report.docx'.

Mitigating Activities:

Description of Mitigating Activities and Preventative Measure: Please see attached 'FAC-008-3 Self-Report.docx'.

Have Mitigating Activities been Completed? No

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: Please see attached 'FAC-008-3 Self-Report.docx'.

Risk Assessment of Impact to BPS: Please see attached 'FAC-008-3 Self-Report.docx'.

Self Report

Additional Entity Comments: Please see attached 'FAC-008-3 Self-Report.docx'.

Additional Comments		
From	Comment	User Name
No Comments		

Additional Documents			
From	Document Name	Description	Size in Bytes
Entity	FAC-008-3 Self-Report.docx		106,731

Attachment 3
SPPC's Mitigation Plan designated as WECCMIT012951 for
FAC-009-1 R1 submitted June 1, 2017

Mitigation Plan

Mitigation Plan Summary

Registered Entity: Sierra Pacific Power Company

Mitigation Plan Code: WECCMIT012951

Mitigation Plan Version: 1

NERC Violation ID	Requirement	Violation Validated On
WECC2016016683	FAC-009-1 R1.	05/30/2017

Mitigation Plan Submitted On: June 01, 2017

Mitigation Plan Accepted On:

Mitigation Plan Proposed Completion Date: January 27, 2017

Actual Completion Date of Mitigation Plan: January 27, 2017

Mitigation Plan Certified Complete by SPPC On: June 01, 2017

Mitigation Plan Completion Verified by WECC 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: Sierra Pacific Power Company

NERC Compliance Registry ID: NCR05390

Address: 6100 Neil Road
Reno NV 89511

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: Eric Schwarzrock
Title: Director, NERC Compliance and Risk Analysis
Email: ESchwarzrock@nvenergy.com
Phone: 775-834-4353

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		
WECC2016016683	06/18/2007	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.		

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

Please refer to the 'Description of the Root Cause Analysis' section of the "FAC-008-3 Self-Report.docx", page 6. Please refer to the 'How NV Energy Discovered the Concern' section of the "FAC-008-3 Self-Report.docx", page 2.

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

Please refer to the 'How NV Energy Discovered the Concern' section of the "FAC-008-3 Self-Report.docx", page 2.

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:

Please see the attached "FAC-008-3 Mitigation Plan.pdf".

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: January 27, 2017

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
Facility Ratings Complete	NV Energy established Facility Ratings for our solely and jointly owned Facilities that are consistent with our Facility Rating methodology as of January 27, 2017. Please see that the document titled "Facility Ratings Methodology.pdf" which became effective January 27, 2017 as well as the associated Facility Ratings listed in the document titled "Transmission Facility Ratings.xlsx".	01/27/2017	01/27/2017		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.

Please refer to the "NV Energy's Reliability Impact Determination" section of the "FAC-008-3 Self-Report.docx", page 7.

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

Please refer to the "Key Controls Applied" section of the "FAC-008-3 Mitigation Plan.pdf", page 3.

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

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.

Sierra Pacific 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: Eric Schwarzrock

Title: Director, NERC Compliance and Risk Analysis

Authorized On: January 27, 2017

December 14, 2016

Phil O'Donnell
Manager, Ops and Planning
Western Electricity Coordinating Council (WECC)

Dear Phil:

Self-Report regarding FAC-008-3 (R6)

Background

Berkshire Hathaway Energy, Inc. is a holdings company of which NV Energy, Inc. is a wholly owned subsidiary. NV Energy, Inc. is a holdings company whose principal subsidiaries are Nevada Power Company (NCR 05261) and Sierra Pacific Power Company (NCR 05390), both doing business as NV Energy. The subsidiaries of NV Energy, Inc. provide fully bundled electric service to approximately 1.25 million customers in Nevada and the headquarters is located in Las Vegas at 6226 West Sahara Avenue.

There is a Board of Directors for NV Energy. NV Energy's President reports to the NV Energy Board of Directors. The President's direct reports are comprised of the Vice Presidents of the various company disciplines (e.g., electric delivery, energy supply, general counsel, human resources, etc.). The Vice Presidents' direct reports are comprised of Executives, Directors and Managers. This level then has a multitude of titles included under their purview (i.e. team leaders, supervisors, subject matter experts, etc.).

Compliance with the NERC Reliability Standards is led by the various Vice Presidents that oversee the operational units (e.g., Electric Delivery, Energy Supply, Transmission, etc.). NV Energy's (NEVP and SPPC) compliance program is overseen by the Senior Vice President and General Counsel, Corporate Secretary & Chief Compliance Officer, who reports directly to the President. The Senior Vice President and General Counsel, Corporate Security & Chief Compliance Officer oversees compliance for both Nevada Power Company and Sierra Pacific Power ("The Companies" or collectively "NV Energy"). Moreover, NV Energy manages one comprehensive compliance program for both Nevada Power Company and Sierra Pacific Power Company. NV Energy has a dedicated NERC compliance department that supports the operational units in achieving and maintaining NERC compliance. The NERC compliance department consists of individuals with auditing, compliance, engineering and operational expertise.

The Companies are registered as a Transmission Operator (TOP), Transmission Owner (TO), Transmission Planner (TP), Transmission Service Provider (TSP), Resource Planner (RP), Planning Authority (PA), Generator Operator (GOP), Generator Owner (GO) and Distribution Provider (DP). In addition to these aforementioned functions, Nevada Power Company is

registered as a Balancing Authority (BA). However, the present issue is limited to two registered functions, Transmission Owner and Generator Owner.

NV Energy has a single "*NERC Reliability Compliance Plan.*" The Director of NERC Compliance and Risk Analysis oversees and implements the single plan for NV Energy (i.e., comprising both NCR 05261 and NCR 05390). The program is extensive and includes, but is not limited to, four key sub programs including standards development, standards implementation, risk assessment, and compliance monitoring and controls. The program receives regular review including third party review such as the WECC Internal Compliance Program Assessment (ICPA) in 2013 and 2015, and the North American Transmission Forum (NATF) peer review in 2016.

How NV Energy Discovered the Concern (Identify)

Description of NV Energy's Compliance Monitoring Program

The NV Energy Compliance Program consists of several detailed and effective oversight and monitoring processes. Specifically, NV Energy has a formal process for conducting compliance risk assessments and performing compliance monitoring per NV Energy's "*NERC Reliability Compliance Plan*" and supplemental documents including:

- "*NERC Reliability Monitoring Schedule Implementation Plan*",
- "*Procedure for NERC Compliance Risk Assessment*",
- "*Procedure for NERC Compliance Monitoring Assessments*", and
- "*Procedure for NERC Compliance Technical Assessments*".

In general, the program works as such; NV Energy utilizes several inputs, including the Electric Reliability Organization (ERO) Compliance Monitoring and Enforcement Program Implementation Plan (CMEP IP), to segregate the requirements of the standards into two tiers based on risk. A description of the review assessment for each tier is as such:

- Tier 1
    - Receives annual compliance monitoring
    - Receives additional risk and controls assessment
    - Receives review for application of a technical assessment
- Tier 2
    - Receives triannual compliance monitoring
    - Receives review for application of a technical assessment

These assessments described above are performed by the NV Energy Compliance and Standards department. These assessments are implemented so NV Energy has a reasonable level of confidence that compliance is being met on a continuous basis, appropriate compliance controls are in place, and the more technical aspects are performed correctly. Collectively, these processes help NV Energy to effectively identify, assess and correct any issues pertaining to the Reliability Standards. As explained below, FAC-008-3 was a standard that was selected to be in the Tier 1 monitoring class for 2016.

Description of NV Energy's Technical Assessment Process

The intent of the technical assessment process is to analyze the Reliability Standards that are more technical in nature to ensure NV Energy upholds a commitment to continuous improvement and identifies and corrects gaps that could reduce reliability to the Bulk Electric System (BES). The technical assessment consists of engineers and subject matter experts conducting deep, technical

assessments of the processes supporting compliance with the Standard. These assessments go beyond a typically compliance assessment. Presently, technical assessments are applied to 27 requirements including FAC-008-3 (R6).

There are five criteria that are used to determine whether or not a requirement will receive a technical assessment:

1) Requirements which require a calculation to be performed.
2) Requirements which require an assessment on the power system or elements of the power system.
3) Requirements that require coordination between two devices (such as relay to relay or relay to equipment damage curve).
4) Requirements that require a list derived from calculations, a study or assessment.
5) Requirements that require maintenance on devices that protect or are part of the BES.

Thus, a technical assessment was determined necessary for FAC-008-3 (R6) on the basis that the requirement was asking for a list of ratings based on calculations or studies in the methodology required from FAC-008-3 (R3).

How NV Energy Assessed the Issue (Assess)

Description of the FAC-008-3 Technical Assessment

Pursuant to the NV Energy monitoring and assessment schedule, FAC-008-3 (R6) received its first technical assessment beginning July 2016. The scope of the technical assessment for FAC-008-3 (R6) was to review the Facility Ratings provided, and any additional evidence as needed, to ensure that;

- all BES Facilities were accounted for,
- all equipment was accounted for in the Facility Rating, and
- the ratings provided matched the ratings process provided in NV Energy's methodology.

Once the Compliance Lead (often referred to as a standard owner) submitted a completed Reliability Standard Audit Worksheet (RSAW) along with the supporting evidence, the technical assessment began with a review of the submitted documentation which included a list of Facilities, their ratings and the methodology for determining Facility Ratings.

To ensure that all Facilities were accounted for, the list of Facilities with ratings that were provided as evidence was compared to current transmission maps. Any missing Facilities or incorrectly listed Facilities were noted.

To ensure that all equipment was accounted for in the Facility Ratings, additional evidence that showed the ratings of each equipment type for a Facility was requested. This additional evidence was reviewed and the list of Facilities provided was compared to the Facility Ratings list to ensure that the additional evidence was complete. The Facility Ratings were checked with the additional evidence to ensure that the lowest rated equipment was selected as limiting the Facility Rating, and the additional evidence was reviewed to ensure that all equipment associated with each Facility was accounted for. Additional evidence provided by NV Energy's System Protection department, because of an ongoing effort to collect relay and current transformer (CT) Equipment Ratings, was also reviewed to ensure that all equipment was accounted for and that the methodology for

collecting relay and CT ratings were applied consistently between NEVP and SPPC. Any missing Equipment Ratings or other discrepancies were noted.

To ensure the ratings provided matched the ratings process provided in NV Energy's methodology, the Facility Ratings Methodology document was reviewed and the methods listed in the document were compared with the evidence provided to check that the equipment and Facility Ratings matched the process described in the methodology. Any inconsistencies with the application of the methodology were noted.

NV Energy completed its technical assessment September 19, 2016 and identified several possible issues.

Description of the Self-Identified Concerns

The technical assessment determined that the Facility Ratings list utilized by NV Energy is deficient in that it does not include all applicable Facilities nor is all equipment that comprises some Facilities included in the determination of ratings. NV Energy determined the following specific issues:

- There were some jointly owned transmission lead lines interconnecting NV Energy's transmission system to Independent Power Producers (IPP) that were not listed within the evidence provided.

  SPPC:
  1. East Tracy – Tri Center (345kV)
  2. Salt Wells Tap – Salt Wells (230kV)
  3. Frontier – McGinniss (230kV)
  4. Excelsior – Wild Rose (120kV)
  5. Dun Glen – Blue Mountain (120kV)
  6. Falcon – Newmont (120kV)
  7. Humboldt – Tuscarora (120kV)
  8. Anaconda Moly – Solar Reserve (230kV)

  NEVP:
  1. Gypsum – Mountain View Solar (138kV)

- There were some transmission lines that were not listed within the evidence provided.

  SPPC:
  1. East Tracy – Tracy (120kV)

  NEVP:
  1. Crystal – McCullough (500kV) *jointly owned

- Some of the transmission lines listed reflected previous system configurations and did not take into account recent changes to the system (i.e. a new substation folded into the middle of a line. The Facility Ratings list reflected the line before the substation was built, and not the two new lines and the associated Facility Ratings created when the substation was placed in service).

SPPC:

1. The Spanish Springs – Tracy line (120kV) rating should be removed and replaced with the Spanish Springs – Pah Rah line and Pah Rah – Tracy line.
2. Star Peak –Winnemucca line (120kV) rating should be removed and replaced with the Star Peak – Dun Glen line and Dun Glen – Winnemucca line

- When comparing the evidence provided for Equipment Ratings for each Facility for NEVP and SPPC, it did not appear that NEVP took wave traps into consideration. SPPC took wave traps and relay settings into consideration for some, but not all transmission lines.

  SPPC:

  1. Wave traps and relay settings were evaluated during the determination of Facility Ratings for transmission lines 200kV and above as well as all interties. Wave traps and relay setting were not considered during the determination of ratings for other Facilities. It should be noted that there are very few wave traps in the transmission system.

  NEVP:

  1. Wave trap Equipment Ratings were not considered during the determination of ratings for all Facilities. It should be noted that there are very few wave traps in the transmission system.

- The technical assessment reviewed relay and current transformer (CT) thermal ratings and determined that there were inconsistencies when these Equipment Ratings were utilized in the determination of Facility Ratings.

  SPPC:

  1. Did not include relay and CT Equipment Ratings in the determination of Facility Ratings.

  NEVP:

  1. Did not include relay and CT Equipment Ratings in the determination of Facility Ratings for transformers and compensation devices.

- The lead lines from the high side bushing of the NV Energy owned generator step up (GSU's) transformers to the interconnecting NV Energy owned substations were not listed in the evidence provided, however, the lead lines are designed to exceed the full rating of the generating plant.

- Series and shunt compensation devices were not listed in the evidence provided, however, compensation devices, as well as their interconnecting equipment, are designed to exceed their own inherent capabilities.

Description of Facilities in Scope of this Self-Report

The extent of Facilities not included and ratings that will change based on the inclusion of all equipment that comprise a Facility has not yet been determined, but NV Energy has established a

Facility Ratings Task Force that is working expeditiously to make this determination and expects to have this determination completed by January 13, 2017.

Summary of Key Dates Described in Report

- Date issue began: January 1, 2013
- Date issue discovered: September 19, 2016
- Date RCA completed: September 28, 2016
- Date RCA mitigating activities were completed: October 31, 2016
- Date Task Force began: October 31, 2016
- Date the Facility Rating tool was completed: November 11, 2016
- Date when the methodology review will be complete: December 19, 2016
- Date the data collection will be completed: January 13, 2016
- Date the peer check will be completed: January 13, 2016
- Date the training will be complete: January 13, 2016
- **Date all compliance issues remediated: January 13, 2017**
- Date the change management process will be complete: January 13, 2017
- Date the subsequent reviews will be complete: January 27, 2017

Description of the Root Cause Analysis

NV Energy has a formal process to assess compliance and reliability concerns per NV Energy's "*Root Cause Analysis Program*" (RCA). NV Energy performed a RCA September 28, 2016. NV Energy intended the RCA to focus on the process and controls associated with Facility Ratings. The RCA identified the following causes and associated mitigating activities:

- **Root Cause:** "The RCA team members identified the lack of a formal implementation and interpretation assessment process that includes new, evolving and existing standards as the root cause for NV Energy not correctly interpreting and implementing based on the intent of the standard drafting team." *This root cause is applicable to the time period in which FAC-008-3 became effective (January 1, 2013).*
    - **Mitigating Activity 1 for the Root Cause:** Develop and implement a formal Implementation and Interpretation Assessment process including new and evolving standards. *Because the Root Cause was focused on the time period in which FAC-008-3 became enforceable this mitigating activity was included. NV Energy is now implementing a formal Implementation and Interpretation Assessment process including new and evolving standards.*
    - **Mitigating Activity 2 for the Root Cause:** Develop a business case to include existing standards in the Implementation and Interpretation Assessment process. *NV Energy developed a business case to include existing standards in the present Implementation and Interpretation Assessment process, October 6, 2016. This business case has been reviewed, approved and will be implemented first quarter 2017.*
- **Contributing Cause 1:** "It was identified during the RCA that clear roles and responsibilities for FAC-008-3 have not been identified and communicated."
- **Contributing Cause 2:** "It was identified during the RCA that a single location for information would significantly improve consistency for the communication and use of Facility Ratings."

- **Contributing Cause 3:** "It was identified during the RCA that NV Energy is lacking a formal collective communication process across the business units as it pertains to Facility Rating Methodology and the subsequent Facility Ratings."
    - **Mitigating Activity for Contributing Cause 1, 2 and 3:** Develop a business case to address clear roles and responsibilities, a single location for information, and a formal collective communication process for FAC-008-3. *NV Energy developed a business case to address clear roles and responsibilities, a single location for information, and a formal collective communication process for FAC-008-3, completed October 3, 2016. As a part of this improvement process the Facility Rating methodology and the associated Facility Ratings would be assessed and corrected as necessary. This business case was approved by executive leadership October 19, 2016 and the kick off meeting for the Facility Rating Task Force occurred October 31, 2016. The team is meeting weekly until completion. This effort includes a complete review of applicable Facilities, a complete review of all equipment that comprise a Facility, and a review of methodologies for all Facilities. These activities are further described in the Description of Mitigating and Preventative Activities section.*
- **Contributing Cause 4:** "It was identified during the RCA that NV Energy lacks ongoing technical training and resources to consistently track all NERC related information."
    - **Mitigating Activity for Contributing Cause 4:** Perform training for appropriate staff. *The applicable departments performed training regarding FAC-008-3, completed October 31, 2016. The teams will be performing additional training at the completion of the revised Facility Rating process and associated Facility Ratings. This training will provide guidance for understanding the standard, understanding NV Energy's methodology and the process for change management of both the methodology as well as the actual ratings. Additionally, a training aspect was included in the business case associated with Mitigating Activity 2 for the Root Cause. This training aspect would include the development and implementation of Compliance Lead Workbooks which would act as desktop guides for meeting compliance with Reliability Standards, including FAC-008-3, applicable to each department.*

NV Energy's Reliability Impact Determination

Based on its technical assessment, the findings, and the root cause analysis, NV Energy assessed both the actual and potential risk to Reliability:

- **Actual Impacts to the BES:** NV Energy is not aware of any actual impacts to the BES due to the concerns identified by the technical assessment. Therefore, the actual impact to the BES is minimal and through NV Energy's rigorous assessments, NV Energy confirmed concerns addressed herein resulted in no harm to the BES.

- **Potential Impacts to the BES:** Overall, NV Energy has determined that the potential risk to the BES is minimal. Specifically, although all Facilities have not been individually identified and tabulated in one database, NV Energy has the ability to identify ratings for all lines and transformers. NV Energy also believes that many of the items identified in the technical assessment, whether by design or if failed due to overload, would not result in significant impact to the BES. For example;
    - Relay protective devices, whether electromechanical or microprocessor based, would likely result in the inability to trip but would not result in an outaged Facility.

It's also likely, because of the redundancy of the Protection Systems that the Facility would continue to be protected as intended.

- Shunt compensation devices are designed such that the interconnecting elements are rated at or above the nameplate rating of the shunt device and this rating will likely never be exceeded based on the inherent capabilities of the device itself.
- Generator lead lines are designed such that the interconnecting elements are rated at or above the nameplate rating of the connected generation and this rating will likely never be exceeded based on the maximum capability of the generator(s) itself.

As discussed below in the "Description of Immediate Corrective Actions", after the new conservative ratings were identified, NV Energy ran a contingency analysis on the system under peak load and identified only five lines that overload for P1 events and eight lines that overload for P4 events. No reliability issues were identified for P0 events. Based on this contingency analysis, NV Energy determined that there is not a significant impact to the BES or any chance of cascading outages.

NV Energy also maintains and coordinates several internal controls for both owned and jointly owned facilities to ensure that facilities are not overloaded to ensure reliability and compliance. The following controls are in place:

- WECC Base Cases: NV Energy Transmission Planning base cases are created on WECC's schedule which include all future planned projects, system changes and load forecasts. Once assembled, transmission planning performs contingency analysis on these cases to ensure that the system meets NERC TPL criteria. This allows NV Energy to identify future issues and incorporate reliability Corrective Action Plans as documented in the annual NERC TPL assessment.
- Real-time system alarms: NV Energy's Control Centers have operating limitation alarms for all BES lines and transformers. These alarms trigger at 80%, 90% and 100% to provide awareness and allow for operator intervention as necessary.
- NV Energy also utilizes a Real-time contingency analyzer that runs every five minutes so operators are aware of any critical contingencies that may occur and ensure a mitigation is in place.
- Next Day Reliability Study: NV Energy runs a next day reliability study for the system every day. These studies runs all P1 contingencies while taking into account any planned equipment outages, planned forecasts and the planned generation dispatch. This analysis allows for the company to be prepared for the worst contingency and alleviate the problem before it occurs.
- NV Energy transformers include both winding and top oil temperature alarms providing additional awareness to the transmission operators.

NV Energy has several controls currently in place to ensure facilities are not overloaded. The analysis with the conservative ratings resulted in minimal impact to the BES, did not cause cascading or any system instability, nor result in any harm to the BES. Based on these factors, NV Energy determined that the Facility Ratings, and any subsequent ratings (SOLs), need to be addressed urgently and accurately, but overall there was, and currently is, only a minimal potential impact to the BES.

Mitigating Activities (Correct)

Description of Immediate Corrective Actions

NV Energy does not believe there were any immediate concerns associated with the reliability of the BES as NV Energy's performance history indicated, but wanted to take a conservative approach to determining Facility Ratings as it came to current transformer thermal ratings for SPPC and relay thermal limits for NEVP. This was the only area in which NV Energy's subject matter experts felt it would be appropriate to review and apply any new ratings promptly, prior to the efforts of the Facility Rating Task Force. Therefore;

- SPPC determined current transformer ratings based on the minimum current transformer ratio being used on each Facility and assumed a current transformer rating factor of 1.0. By multiplying the minimum primary current transformer tap by the rating factor of 1.0 the most conservative rating would be determined.
- NEVP determined the relay thermal limits based on the equipment manufacturers ratings.

These Equipment Ratings were then considered in the determination of all existing Facility Ratings and the appropriate ratings were updated and the appropriate groups were notified (i.e. Transmission Operations, Transmission Planning, etc.) so that subsequent limitations could be adjusted accordingly (System Operating Limits). The Energy Management System (EMS) alarms were also configured for the updated ratings. This resulted in new conservative Facility Ratings for 68 Facilities for SPPC and 6 Facilities for NEVP.

Description of Mitigating and Preventative Activities

As a result of the RCA the following mitigating activities were completed;

- **Mitigating Activity 1 for the Root Cause:** Develop and implement a formal Implementation and Interpretation Assessment process including new and evolving standards. *Because the Root Cause was focused on the time period in which FAC-008-3 became enforceable this mitigating activity was included. NV Energy is now implementing a formal Implementation and Interpretation Assessment process including new and evolving standards.*
- **Mitigating Activity 2 for the Root Cause:** Develop a business case to include existing standards in the Implementation and Interpretation Assessment process. *NV Energy developed a business case to include existing standards in the present Implementation and Interpretation Assessment process, October 6, 2016. This business case was approved by executive leadership December 9, 2016.*
- **Mitigating Activity for Contributing Cause 1, 2 and 3:** Develop a business case to address clear roles and responsibilities, a single location for information, and a formal collective communication process for FAC-008-3. *NV Energy developed a business case to address clear roles and responsibilities, a single location for information, and a formal collective communication process for FAC-008-3, completed October 3, 2016. As a part of this improvement process the Facility Rating methodology and the associated Facility Ratings would be assessed and corrected as necessary. This business case was approved by executive leadership October 19, 2016 and the kick off meeting for the Facility Rating Task Force occurred October 31, 2016. The team is meeting weekly until completion. This effort includes a complete review of applicable Facilities, a complete review of all equipment that comprise a Facility, and a review of methodologies for all Facilities. These activities are further described below.*

- **Mitigating Activity for Contributing Cause 4:** Perform training for appropriate staff. *The applicable departments performed training regarding FAC-008-3, completed October 31, 2016. The teams will be performing additional training at the completion of the revised Facility Rating process and associated Facility Ratings. This training will provide guidance for understanding the standard, understanding NV Energy's methodology and the process for change management of both the methodology as well as the actual ratings. Additionally, a training aspect was included in the business case associated with Mitigating Activity 2 for the Root Cause. This training aspect would include the development and implementation of Compliance Lead Workbooks which would act as desktop guides for meeting compliance with Reliability Standards, including FAC-008-3, applicable to each department.*

In addition to the mitigating items listed above and completed as a result of the RCA, NV Energy is executing the business case identified above in the "Mitigating Activity for Contributing Cause 1, 2 and 3". In order to completely vet all ratings and their methodologies NV Energy is performing:

- a complete review of applicable Facilities,
- a complete review of all equipment that comprise a Facility, and
- a review of methodologies for all Facilities.

Additionally, NV Energy will identify:

- a single and transparent location for information,
- clear roles and responsibilities,
- an ongoing change management process, and
- an automated notification process for change management control.

To do this NV Energy's Compliance and Standards department gathered a Facility Rating Task Force which includes subject matter experts throughout the organization and which commenced October 31, 2016. The Task Force is working through the following steps;

1. **Data Management Review:** Although NV Energy was already utilizing a spreadsheet for the Facility Rating list the Task Force took this opportunity to improve the tool. To make this improvement NV Energy reviewed different tools utilized by other platforms within Berkshire Hathaway's organization, other NATF participants, and Midwest Reliability Organization's FAC-008-3 Standard Application Guide. The Task Force then took what was believed to be best practice and developed a new and improved data management tool. This tool was designed by a small subgroup and then reviewed and approved by the Task Force November 11, 2016. This tool clearly defines ownership and will be available and transparent to all the appropriate departments. NV Energy estimates $18,656 was spent on this effort.
2. **Data Collection:** November 14, 2016 began the data collection phase. The data collection phase was prioritized based on risk. To do this the team ranked all Facilities 200kV and above as priority one and Facilities below 200kV as priority two. To collect data and analyze the Facilities the business units, as well as Compliance, utilized a combination of various database, substation prints, system one lines, manufacturer test reports, and field verification. Because of the extent of this effort NV Energy's executive leadership supplied the specific business units with an additional budget of $150,000 to ensure the effort was properly funded and supported. This data collection phase will be complete January 13, 2017.

3. **Methodology Review:** November 28, 2016 began the Facility Rating Methodology review phase. This phase ran concurrently with the data collection phase identified in step 2. Again, the Task Force reviewed methodologies utilized by other platforms within Berkshire Hathaway's organization as well as other NATF participants. The Task Force then took what was believed to be best practice and developed a new and improved Facility Rating Methodology. This Facility Rating Methodology phase will be complete December 19, 2016. This methodology clearly defines ownership and will be available and transparent to all the appropriate departments. NV Energy estimates $20,944 was spent on this effort.
4. **Applicability Review:** The results of the technical assessments were originally provided to the Task Force. The business units that comprise the Task Force utilized the existing Facility Rating list, and the technical assessments, then independently reviewed the Facilities, and the equipment that comprise those Facilities, as a part of the data collection phase. The Facilities, as well as the equipment that comprise those Facilities, provided by the business units is then peer checked by the Compliance and Standards department for accuracy. Various database, substation prints, system one lines, manufacturer test reports, and field verification are all utilized to perform this peer review. This step is performed concurrently with steps 2 and 3 and will be complete January 13, 2016.
5. **Location for Information:** December 12, 2016 will begin the location identification phase. A subgroup to the Task Force will identify a transparent location to maintain the Facility Rating list, the Facility Rating Methodology, and any supplemental documentation including the change management procedure. This location and the development of its interface will be reviewed and approved by the Task Force by December 23, 2016.
6. **Change Management:** While the Facility Rating Methodology, per step 3, will be complete December 19, 2016 the Task Force has determined that the associated change management procedure will be included within the same document. December 19, 2016 the Task Force will begin developing and documenting the change management procedure to be included in the methodology. This change management process will include an automated notification control that will notify a predetermined distribution list for all applicable changes. For example, if a change is made to the methodology for determining ratings for auto transformers an email will be automatically distributed to all the appropriate parties including a short description of the change. Furthermore, the change management process will include steps for ensuring that all equipment that comprise a Facility, and that all new or evolving Facilities, are evaluated for inclusion in the determination of Facility Ratings. For example, if a breaker fails catastrophically, and is replaced as a part of the corrective maintenance, the as-built process will include steps to ensure that the Facility Ratings are appropriately reviewed and updated as necessary. Another example includes, if a new substation or transmission line is planned for construction as a part of a capital improvement project there will be steps for ensuring that the Facility is reviewed for applicability and then appropriately evaluated for Facility Ratings as necessary. The change management procedure will be complete January 13, 2017. NV Energy estimates that $26,576 will be spent on this effort.
7. **Subsequent Review:** Because Facility Ratings have a subsequent effect on other determinations such as, but not limited to, System Operating Limits for the Planning and Operations Horizon, Total Transfer Capabilities, certain Transmission Relay Loadability calculations, Remedial Action Scheme reviews, and steady state and stability planning requirements it is important to review that affect. January 16, 2017 the Task Force will begin to review these subsequent determinations and the appropriate NV Energy processes

will be followed. Once the business units complete this effort the changes will be shared with Compliance and Standards where a peer review will be performed. This final step for the Task Force will be complete January 27, 2017.

It important to note that in addition to the mitigating activities listed above FAC-008-3 will continue to receive both a compliance and technical assessment on an annual basis to ensure that the controls and resulting ratings are both appropriate and correct. Additionally, the latest definition of the Bulk Electric System (BES) as well as any official inclusions or exclusions will be applied in the determination of the Facilities.

Sincerely,

Eric Schwarzrock
Director, NERC Compliance and Risk Analysis

June 1, 2017

Tyson Niemann
Enforcement Analysis
Western Electricity Coordinating Council (WECC)

Dear Tyson:

Mitigation Plan Summary and Evidence Guide regarding FAC-008-3 (R6)

Purpose

This document is intended to summarize the mitigation activities included with the FAC-008-3, R6 self-report (December 14, 2016) titled "FAC-008-3 Self-Report.docx". Included in this summary are references to the attached supporting evidence.

Key Actions Taken

A detailed description is provided in the "Mitigating Activities (Correct)" section of the self-report, pages 9 through 12. A copy of the self-report is attached as evidence to this Mitigation Plan and is titled "FAC-008-3 Self-Report.docx". Key dates associated with these mitigating steps are listed below.

These mitigating activities were executed by a team of subject matter experts at NV Energy referred to as the Facility Rating Task Force. Weekly meetings were held from October 31, 2016 "Kickoff Meeting - Facility Rating Task Force 10312016.pdf" through January 26, 2017 "Meeting - Facility Rating Task Force 01262017.pdf". An example agenda of the January 26, 2017 meeting is also included and is titled "FR Task Force_01262017 Agenda_Meeting Notes.pdf".

It is important to note that NV Energy established Facility Ratings for our solely and jointly owned Facilities that are consistent with our Facility Rating methodology as of January 27, 2017. Please see that the document titled "Facility Ratings Methodology.pdf" which became effective January 27, 2017 as well as the associated Facility Ratings listed in the document titled "Transmission Facility Ratings.xlsx".

1. **Data Management Review:** Completed November 11, 2016. The Task Force reviewed industry best practices (Midwest Reliability Organization application guide, North American Transmission Forum, Berkshire Hathaway platforms, etc.) and developed a tool to support Facility Ratings. This tool is the excel workbook titled "Transmission Facility Ratings.xlsx" and is attached to this Mitigation Plan. This workbook serves as a one-stop-shop for all NV Energy transmission Facility Ratings and includes many automated features and simplified references.

2. **Data Collection:** Completed January 27, 2017. The Task Force verified all equipment data that comprises a Facility. The results of this data collection effort can be viewed in the excel workbook titled "Transmission Facility Ratings.xlsx" on the tabs titled "Bus", "Breaker", "Transformer", "Shunt Devices", and "Line". The data owner (NV Energy business unit) that collected the information is listed at the top of each column. To collect data and analyze the Facilities the business units, as well as Compliance, utilized a combination of various databases, substation prints, system one lines, manufacturer test reports, and field verification. Because of the extent of this effort NV Energy's executive leadership supplied the specific business units with an additional budget of $180,000 to ensure the effort was properly funded and supported as seen by the attached documents titled, "NRCFAC008N Project Audit Summary.pdf" and "NRCFAC008S Project Audit Summary.pdf".
3. **Methodology Review:** Completed December 19, 2016. The Task Force reviewed industry best practices (Midwest Reliability Organization application guide, North American Transmission Forum, Berkshire Hathaway platforms, etc.) and upgraded NV Energy's Facility Rating Methodology. This new methodology is titled "Facility Ratings Methodology.pdf" and is attached to this Mitigation Plan. This methodology is thorough and operates as a guide. Processes, tables, assumptions, roles, responsibilities, etcetera, are all included in the document.
4. **Applicability Review:** Completed January 27, 2017. To reduce human error, the Task Force reviewed and peer checked Facilities, applicability, data and methods to ensure proper Facility Ratings. This independent peer checking process was performed by Jeff Watkins, NERC Compliance Senior Engineer, NV Energy.
5. **Location for Information:** Completed December 23, 2016. The Task Force identified clear roles, clear responsibilities and transparent information. The roles and responsibilities are clearly defined in both the "Transmission Facility Ratings.xlsx" and the "Facility Ratings Methodology.pdf". In the excel workbook the responsibilities are defined at the top of the columns. In the methodology the responsibilities are defined in the section headers. The data is available to the appropriate personnel by the use of an internal SharePoint site. Please see the screen shot titled "Location for Information - Transmission Planning SharePoint Site.png". All business units approved the roles and responsibilities through review and approval of the methodology.
6. **Change Management:** Completed January 13, 2017. The Task Force developed and executed a change control process to ensure Facility Ratings remain accurate and properly applied. The change control process is included in the "Facility Ratings Methodology.pdf", pages 24-26, and this document is approved by the appropriate management at NV Energy, see the signature page, page 1. The form used by the company to ensure ratings are kept up to date is also attached, "Att. A_Facility Ratings Data Collection Form" and is available to the appropriate personnel through the SharePoint site.
7. **Subsequent Ratings:** Completed February 3, 2017. Through several meetings, the Task Force worked together to ensure that Facility Ratings are properly reflected in subsequent ratings/settings such as, but not limited to, the follow Reliability Standards:
    - FAC-010-3, FAC-013-2, & FAC-014-2
    - FAC-501-WECC-1
    - MOD-001-1a, MOD-029-2a
    - PRC-015-1, PRC-023-4
    - TPL-001-4

Again, please refer to the self-report for further details.

Key Controls Applied

Several key controls have been created to prevent future non-compliance. A list of those controls and the dates they were implemented are shown below:

- **Effective January 1, 2016:** Annual technical reviews by the Compliance department to ensure methodologies, the application of the BES definition, and the change control process is correct and applied. Please see the attached document, "Procedure for NERC Compliance Technical Assessments 20170202.pdf". Please note, that this process was an informal process until August 23, 2016 when this process was documented and formally approved.
- **Effective January 1, 2016:** NV Energy formalized and documented a Reliability Standard implementation and interpretation procedure. This procedure helps to ensure new and evolving standards are correctly interpreted and implemented across the organization. This program is being expanded to include interpretation and implementation support for currently enforceable standards as well. This program helps to ensure that the appropriate individuals understand FAC-008-3 as well as any changes that may occur to future versions. Please refer to the attached document titled, "NERC Standards Implementation Procedure 20170418.pdf".
- **Effective January 13, 2017:** NV Energy's methodology includes a change control process to ensure Facility Ratings remain appropriate and accurate for corrective maintenance and capital improvement projects. The change control process is included in the "Facility Ratings Methodology.pdf", pages 24-26. The form used by the company to ensure ratings are kept up to date is also attached, "Att. A_Facility Ratings Data Collection Form" and is available to the appropriate personnel through the SharePoint site.
- **Effective January 13, 2017:** Management oversight of the change control process to ensure effectiveness. All departments that participate in this process provide signature on the title page of the methodology to ensure commitment to this process, see the signature page, of the "Facility Ratings Methodology.pdf", page 1.
- **Effective December 23, 2016:** Automated notifications of changes to Facility Ratings to appropriate departments to ensure subsequent ratings such as, but not limited to, SOLs, TTCs, RASs, and loadability settings remain reflective of Facility Rating updates. This is executed with SharePoint workflows. Once a department updates the "Transmission Facility Ratings.xlsx" workbook the Transmission Planning department is notified and their leadership must approve the rating. After approval by the Transmission Planning department the Control Center and Operations leadership is notified of the changes. It then must be approved by them as well. After which the Facility Rating becomes approved and the originator of the workflow is notified as such. Please see the document titled, "Automated Notification and Change Management Process.docx".
- **Effective January 27, 2017:** Embedded tables and the use of drop down fields to reduce human errors when inputting data in the Facility Ratings List. There are several examples of this tool. Please see the 'Reference Table' tab of the "Transmission Facility Ratings.xlsx". This reference table tab is used, for example, on the "Bus" tab, column "G", 'Bus Size' as a drop down list to ensure the appropriate ratings are used for the bus selected. This same table is also reflected in the methodology.
- **Effective January 27, 2017:** Automated calculations in the Facility Ratings List to reduce human error when performing calculations. There are several examples of this. Please refer

to the tabs titled "Bus", "Breaker", "Transformer", "Shunt Devices", and "Line" of the "Transmission Facility Ratings.xlsx". Several columns headers are titled "Calc" to indicate if a calculation is used. This automation ensures consistent and accurate calculations.

- **Effective January 27, 2017:** Automated indexing in the Facility Ratings List for identifying the most limiting elements to reduce human error. Please refer to the 'Limiting Element' column of any of the tabs titled "Breaker", "Transformer", "Shunt Devices", or "Lines" of the "Transmission Facility Ratings.xlsx" workbook. This function allows the workbook to properly identify the limiting element for that Facility.

Sincerely,

Eric Schwarzrock
Director, NERC Compliance and Risk Analysis

Attachment 4
SPPC's Certification of Mitigation Completion for FAC-009-1 R1
submitted June 1, 2017

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: Sierra Pacific Power Company
NERC Registry ID: NCR05390
NERC Violation ID(s): WECC2016016683
Mitigated Standard Requirement(s): FAC-009-1 R1.
Scheduled Completion as per Accepted Mitigation Plan: January 27, 2017
Date Mitigation Plan completed: January 27, 2017
WECC Notified of Completion on Date: June 01, 2017
Entity Comment:

Additional Documents			
From	Document Name	Description	Size in Bytes
Entity	FAC-008-3 Mitigation Plan.pdf	Mitigation Plan	1,799,448
Entity	FAC-008-3 Self-Report.docx	Self-Report	106,731
Entity	Att. A_Facility Ratings Data Collection Form.pdf		36,058
Entity	Automated Notification and Change Management Process.docx		415,018
Entity	Facility Ratings Methodology.pdf		9,436,304
Entity	FR Task Force_01262017 Agenda_Meeting Notes.pdf		43,681
Entity	Kickoff Meeting - Facility Rating Task Force 10312016.pdf		190,535
Entity	Location for Information - Transmission Planning SharePoint Site.png		102,292
Entity	Meeting - Facility Rating Task Force 01262017.pdf		202,008
Entity	NERC Standards Implementation Procedure 20170418.pdf		179,964
Entity	NRCFAC008N Project Audit Summary.pdf		25,026

Additional Documents			
From	Document Name	Description	Size in Bytes
Entity	NRCFAC008S Project Audit Summary.pdf		24,980
Entity	Procedure for NERC Compliance Technical Assessments 20170202.pdf		2,966,388
Entity	Transmission Facility Ratings.xlsx		2,971,993

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: Eric Schwarzrock
Title: Director, NERC Compliance & Risk Analysis
Email: eschwarzrock@nvenergy.com
Phone: 1 (775) 834-4353

Authorized Signature _____ Date _____

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

Attachment 5
WECC's Verification of Mitigation Plan Completion for
FAC-009-1 R1 dated June 30, 2017

From: noreply@oati.net
Sent: 06/30/2017 08:09:29
To: SLateef@nvenergy.com;eschwarzrock@nvenergy.com;thenderson@nvenergy.com
Subject: WECC Notice - Completed Mitigation Plan Acceptance - FAC-009-1 R1. - Sierra Pacific Power Company

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Please do not REPLY to this message. It was sent from an unattended mailbox and replies are not monitored. If you have a question, send a new message to the OATI Help Desk at support@oati.net.

NERC Registration ID: NCR05390
NERC Violation ID: WECC2016016683
Standard/Requirement: FAC-009-1 R1.
Subject: Completed Mitigation Plan Acceptance

The Western Electricity Coordinating Council (WECC) received the Certification of Mitigation Plan Completion submitted by Sierra Pacific Power Company on 06/01/2017 for the violation of FAC-009-1 R1.. After a thorough review, WECC has accepted the Certification of Mitigation Plan Completion.

Note: Effective 04/01/2013, WECC will formally notify registered entities of completed Mitigation Plan acceptances via this email notice. WECC will no longer notify entities by uploading a Notice of Completed Mitigation Plan Acceptance letter to the Enhanced File Transfer (EFT) Server.

webCDMS Login: https://www.cdms.oati.com/CDMS/sys-login.wml

[OATI Information - Email Template: MitPlan_Completed]

Attachment 6
SPPC's Self-Report for VAR-002-4 R2 submitted July 22, 2018

Self Report

Entity Name: Sierra Pacific Power Company (SPPC)

NERC ID: NCR05390

Standard: VAR-002-4

Requirement: VAR-002-4 R2.

Date Submitted: July 22, 2018

Has this violation previously been reported or discovered?: No

Entity Information:

Joint Registration Organization (JRO) ID:

Coordinated Functional Registration (CFR) ID:

Contact Name: Kevin Salsbury

Contact Phone: 7024022764

Contact Email: KSalsbury@nvenergy.com

Violation:

Violation Start Date: April 10, 2017

End/Expected End Date: September 13, 2017

Reliability Functions: Generator Operator (GOP)

Is Possible Violation still occurring?: No

Number of Instances: 66

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

Which Regions:

Date Reported to Regions:

Detailed Description and Cause of Possible Violation: SPPC has submitted a Self Report document that provides additional detail of the discovery of the event, extent and causes of the possible noncompliance, communication, mitigating activities, risk assessment, and evidence associated with proving completion of the projected activities

Please review the submitted evidence, VAR-002-4.1 SPPC SR.pdf on page 3, "Description of Possible Violation", and page 4, "Cause of Possible Violation".

Please note section, "Number of Instances", on page 2 for a description on the large number of instances and method for identification as an "instance".

Description of the Self Report Communication process and timeline are provided in the section, "Description of Possible Violation", on page 3

Mitigating Activities:

Description of Mitigating Activities and Preventative Measure: SPPC has submitted a Self Report document that provides additional detail of the discovery of the event, extent and causes of the possible noncompliance, communication, mitigating activities, risk assessment, and evidence associated with proving completion of the projected activities

Please review the submitted evidence, VAR-002-4.1 SPPC SR.pdf on pages 4-5, "Mitigating Activities & Preventative Measures

Self Report

As of this Self-Report, all Mitigating Activities have been completed. The deployment of an annual Computer Based Training on AVR-PSS operation and Voltage Schedule monitoring to all applicable Generation plant operations personnel was done on 3/20/2018 with completion of testing required by 5/4/2018.

Have Mitigating Activities been Completed? Yes

Date Mitigating Activities Completed: May 04, 2018

Impact and Risk Assessment:

Potential Impact to BPS: Minimal

Actual Impact to BPS: Minimal

Description of Potential and Actual Impact to BPS: SPPC has submitted a Self Report document that provides additional detail of the discovery of the event, extent and causes of the possible noncompliance, communication, mitigating activities, risk assessment, and evidence associated with proving completion of the projected activities.

Please review the submitted evidence, VAR-002-4.1 SPPC SR.pdf on page 5, "Impact and Risk Assessment"

Risk Assessment of Impact to BPS: SPPC has submitted a Self Report document that provides additional detail of the discovery of the event, extent and causes of the possible noncompliance, communication, mitigating activities, risk assessment, and evidence associated with proving completion of the projected activities.

Please review the submitted evidence, VAR-002-4.1 SPPC SR.pdf on page 5, "Impact and Risk Assessment"

Additional Entity Comments:

Additional Comments		
From	Comment	User Name
Entity	In addition to the evidence referenced in VAR-002-4.1 - SPPC SR.pdf, SPPC has included the following: - SPPC TOP Procedure 3210 - SPPC Voltage and Reactive Management.docx (Procedure that defines Voltage Schedules for SPPC GOP and includes tolerance bandwidth) - AVR PSS Assigned Employee List.xlsx (List of NVE generation operations employees scheduled to take CBT training by 5/4/2018) - HPI_Alert_Fleet Voltage Schedule Deviation.pdf (Communication to all Generation personnel after all RCAs were completed) - Ft Churchill WO DCS Programming.pdf (Mitigating Activity for Ft Churchill on conducting a feasibility study for additional DCS alarms for voltage deviation)	Kevin Salsbury

Additional Documents			
From	Document Name	Description	Size in Bytes
Entity	VAR-002-4.1 - SPPC SR.pdf	SPPC VAR-002-4.1 Self Report Narrative	112,054
Entity	RCA -Ft. Churchill Voltage Log	Fort Churchill Generation Plant RCA	45,635

Self Report

Additional Documents			
From	Document Name	Description	Size in Bytes
Entity	Reporting errors.docx	Fort Churchill Generation Plant RCA	45,635
Entity	Valmy_RCA - Voltage Control 1-27-18 Rev2.docx	Valmy Generation Plant RCA	49,492
Entity	FortChurchill Generation Plant Voltage Discrepancies.xlsx	Fort Churchill Voltage Schedule discrepancies spreadsheet	11,400
Entity	Valmy Generation Plant Voltage Discrepancies.xlsx	Valmy Generation Plant Voltage schedule discrepancies spreadsheet	17,758
Entity	Valmy Voltage Schedule Training Attendance Sheet.pdf	Valmy Generation Plant CRO Training on Voltage Schedule Management	119,761
Entity	FTC Voltage Schedule Training record.pdf	Fort Churchill Generation Plant CRO Training on Voltage Schedule management	176,020
Entity	Ft Churchill WO DCS Programming.pdf	Fort Churchill Work Order for feasibility study on DCS Alarm installation for Voltage deviation	125,478
Entity	HPI_Alert_Fleet Voltage Schedule Deviations.pdf	HPI Alert submitted to NV Energy Generation after completion of all Plant RCAs	532,423
Entity	NERC_AVR-PSS Procedures_Training.pptx	NV Energy Online Training for Generation personnel	3,060,319
Entity	3210 - SPPC Voltage and Reactive Management.docx	SPPC TOP Voltage Schedule Procedure delivered to GOP	865,709
Entity	Generator Operation for Maintaining Network Voltage Schedules.pdf	NV Energy Generation GMP-206-6 Procedure on Maintaining Voltage Schedules	207,046
Entity	AVR PSS Assigned Employee List.xlsx	Spreadsheet containing Generation operations personnel across NV Energy fleet required to complete computer based training, AVR-PSS LMS Training	33,476