

Bear Valley Electric Service

Wildfire Mitigation Plan

Annual Report on Compliance

2020 Calendar Year Review



Bear Valley
Electric Service, Inc.
A Subsidiary of American States Water Company

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BACKGROUND

This report serves as the response to Public Utilities Code (PUC) §8386.3(c)(1), where an electrical corporation (EC) must file with the Wildfire Safety Division (WSD) annual reports addressing compliance of approved Wildfire Mitigation Plans (WMP) during the prior calendar year. The report is developed in accordance with the WSD's Compliance Operational Protocols issued in November 2020 and modified in February 2021 under Resolution WSD-012, which among other items directs the development of an Annual Report on Compliance (ARC). Prompts are listed in blue text, signaling WSD required content for this report.

1. RISK REDUCTION INTENT ANALYSIS

1.a) An assessment of whether the EC met the risk reduction intent by implementing all of their approved WMP initiatives, i.e., the degree to which initiative activities have reduced ignition probabilities;¹

1.a.i) If the EC fails to achieve the intended risk reduction, EC shall provide a detailed explanation of why and a reference to where associated corrective actions are incorporated into their most recently submitted WMP.

Bear Valley Electric Service, Inc. (BVES) focuses on implementing approved WMP initiatives that collectively reduce the probability of utility-caused ignitions, reduce the potential impact of wildfires on the BVES system and mitigate the need for Public Safety Power Shutoff (PSPS) events in the future. BVES is not required by the California Public Utilities Commission (CPUC) to develop either a Multi-Attribute Variable Function or Multi-Attribute Risk Score framework for Risk Assessment Mitigation Phase (RAMP) filings; however, BVES maintains a risk assessment toolkit to identify risk drivers and potential consequences of wildfire threat while gauging the success of mitigation initiatives. In 2021, the utility plans to contract services to enhance current risk maps and expand its capability to better predict fire conditions and behaviors. The modeling will account for initiative execution and climate-driven factors.

Currently, BVES uses both its Fire Safety Circuit Matrix, prioritizing wildfire and PSPS risk, and its Risk Registry model, which evaluates enterprise risk. The purpose of the Fire Safety Circuit Matrix model is to assist in determining a circuit-level risk that accounts for the current and planned mitigation activities that intend to reduce ignition potential. The model informs the planning period of the WMP considering changes to the risk profile as mitigations are executed over time. A detailed overview of the Fire Safety Circuit Matrix is contained within the 2021 BVES Annual WMP filing in Section 4.5.1.

Figure 1 provides an estimation of the degree to which 2020 BVES's mitigation initiatives have reduced wildfire risk. BVES has met its intents to both reduce the number of high-risk circuits and reduce overall wildfire ignition risk.

2020 progress highlights include:

- Two circuits (Boulder, Pioneer) were reduced from high to moderate wildfire risk as a result of progress in grid hardening initiatives.
- The cumulative wildfire risk for all BVES circuits was reduced by 12,030;
- The evaluation indicates that no circuits increased in Wildfire Risk Group designation (high, moderate, low);
- Eight circuits (Shay, Boulder, Northshore, Erwin Lake, Pioneer, Holcomb, Garstin, Interlaken) show a decrease in overall risk due to progress in grid hardening initiatives;
- Three circuits (Baldwin, Clubview, Goldmine) show an increase in overall risk due to changes in worst performing circuit status; and
- The circuit with the highest risk (Radford), shows no change in overall wildfire risk. This circuit risk is being addressed by the Radford Line Covered Conductor Replacement Project which is on track for completion in 2021.

¹ Explanation of how ignition probabilities and estimated wildfire consequences have been reduced during the compliance period as a result of WMP initiative implementation (i.e., for the EC ARC due March 31, 2021, the EC shall report on the prior compliance period, defined as January 1, 2020 to December 31, 2020).

Figure 1: 2020 Estimated Reduction in Wildfire Risk by Circuit

Circuit	Substation	1-1-2020 Wildfire Risk Group	12-31-2020 Wildfire Risk Group
Radford	SCE Feed	30521	30521
Shay	SCE Feed	15518	11585
Baldwin	SCE Feed	7856	8409
Boulder	Village	3351	2951
North Shore (Fawnskin)	Fawnskin	7518	6538
Erwin Lake	Maltby	9039	5053
Pioneer (Palomino)	Palomino	4149	2659
Clubview	Moonridge	3460	3660
Goldmine	Moonridge	4569	5569
Paradise	Maltby	2754	2754
Sunset	Maple	3583	3583
Sunrise (Maple)	Maple	2650	2650
Holcomb (Bear City)	Bear City	5916	4516
Georgia	Pineknot	1594	1594
Eagle	Pineknot	2072	2072
Harnish (Village)	Village	385	385
Garstin	Meadow	2115	1370
Lagonita	Village	2732	2932
Interlaken	Meadow	2791	1891
Castle Glen (Division)	Division	1982	1733
Country Club	Division	745	845
Fox Farm	Meadow	-8	-8
Pump House (Lake)	Lake	178	178
Lift (Summit TOU)	Summit	30	30
Skyline (Summit Res)	Summit	0	0
Geronimo (Bear Mtn.)	Bear Mtn.	0	0
		115500	103470

Wildfire Risk Groups

High
Moderate
Low

Overall

Decrease in Risk

12030

Over the course of the 2021, the objective of BVES is to continue to reduce wildfire risks through carrying on its grid hardening initiatives. This includes completion of fuse replacement project, improving situational awareness, improving coordination and communication with stakeholders, and continuing aggressive vegetation management and inspection.

2. CHANGE ORDER AND OPERATION CHANGE REVIEW

1.b) A full and complete listing of all change orders and any other operational changes, such as initiative location changes, made to WMP initiatives, with an explanation of why the changes were necessary, and an assessment of whether the changes achieved the same risk reduction intent;

BVES has not needed to issue any change orders and has not implemented any other operational changes, to its WMP initiatives in 2020. There have been some deviations from expected initiative timelines, typically due to permitting and access issues with the United States Forest Service. For example, BVES has not yet begun its covered conductor work on the Radford line because it has not been able to get the necessary permits from the USFS to begin the work. Installation of the covered wire is anticipated to get under way in 2021.

Another delayed initiative example surrounds the installation of the two remaining weather stations to complete the 10 weather station installation projection for 2020. The remaining two have been scheduled for early 2021. These deviations have not, however, required change orders or other operational changes.

A full listing of implementation and changed circumstances to initiative timelines are described in Supporting Table 7.1-1 (page 88) in BVES's 2021 WMP.

3. WMP INITIATIVE SPEND REVIEW

1.c) Descriptions of all planned WMP initiative spend vs actual WMP initiative spend and an explanation of any differentials between the planned and actual spends;

The descriptions of all planned WMP initiative spend vs actual WMP initiative spend along with an explanation of any differentials* between the planned and actual spends is detailed in the attached Excel spreadsheet.

*NOTE: BVES only lists the discrepancies if the difference between the actual and planned spend is greater than 10 percent (in either direction) in accordance with the Quarterly Data Report guidance.

4. INITIATIVE IMPACT ON PSPS THRESHOLDS

1.d) A description of whether the implementation of WMP initiatives changed the threshold(s) for triggering a PSPS event and/or reduced the frequency, scale, scope and duration of PSPS events;

The triggering threshold for a PSPS event in the BVES PSPS Plan has not yet changed based upon the implementation of WMP initiatives. In the future, BVES anticipates continued redesignation of high risk areas to lower risk designations due to implementation activities. As can be seen in the snapshot of the Fire Safety Circuit Matrix that is supplied in Section 1 of this ARC, BVES has already observed the risk level of some circuits lowered through wildfire mitigation efforts. As more of this becomes apparent, and dependent on the risk mapping initiatives planned to begin in 2021, BVES will reevaluate its PSPS trigger threshold.

BVES has not experienced a wildfire or a PSPS event, nor has it had to facilitate an evacuation. Currently, the highest probability for triggering a PSPS event is loss of SCE energy imports to the BVES service area due to a SCE-directed PSPS of the SCE supply lines to BVES. BVES imports from SCE are subject to PSPS and while these lines may be required to be de-energized by SCE, the BVES service area may not require PSPS. To address the probability of this SCE directed PSPS, BVES proposes to construct an energy storage project of approximately 4 MW/16 MWh (four-hour) Lithium-Ion NMC BESS utility-grade battery in the BVES service area. In 2021, BVES will continue with project planning and evaluation of an energy storage facility within the BVES service territory.

Although BVES has never had to implement PSPS, BVES is committed to reducing the scope, frequency, and duration of PSPS events should it be necessary, and will only implement PSPS when the safety risk of imminent fire danger is greater than the impact of de-energization. Currently, BVES does not estimate the reduced frequency, scale, scope, and duration of PSPS events as a result of implementation of wildfire mitigation programs. However, by their very nature, wildfire mitigation programs such as grid design and system hardening and situational awareness and forecasting reduce the frequency, scale, scope, and duration of PSPS events by reducing the probability of utility-caused ignitions and reducing the potential impact of wildfires on the BVES system.

As BVES continues to reduce ignition risk through the deployment of wildfire mitigation programs, BVES anticipates the likelihood to need to use its PSPS to become even more remote, but BVES will continue to evaluate the risk and necessity for its use. During 2021, BVES will engage a consulting firm to begin the development of a series of risk maps that will show the overall ignition probability and estimated wildfire consequence along electric lines and equipment. Risk Maps development will include an estimation of wildfire and PSPS risk-reduction impact. It is expected that the project will be 50% completed by year-end 2021.

5. WSD DEFECT REVIEW

1.e) A summary of all defects identified by the WSD within the annual compliance period, the corrective actions taken and the completion and/or estimated completion date².

Table 1 below presents the identified defects in 2020 as a result of the WSD-led service area inspection. A list of WMP related deficiencies and their progress updates can be found in Table 4.6-1 (page 50) in BVES's 2021 Annual WMP.

Table 1: WSD 2020 Audit Defects³

Defects Identified in 2020 (Finding #)	Associated Circuit Name	Defect Type	Description of Defect	Date Defect Identified	Corrective Action	Date Defect Corrected	Priority Level of Corresponding Corrective Tag	Location of Defect (Lat/Long)
1	North Shore 4kV	General	Hazard pine tree cut because of overhand over primary conductors. Pole #14207BVp HFTD 2	10/27/2020	Tree had already been trimmed. WSD asked to see an example, and this one was provided. There was no defect, and no corrective action was required.	10/27/2020	2	(34.2488752,-116.966872)

² The defect summary component of the ARC contents does not supplant detailed defect correction responses, which shall be filed with WSD throughout the year as needed (see Appendix Part 2. Response and Corrective Action Timeline for details).

³ In accordance with Resolution WSD-012, the WMP Compliance Process defines a defect as "any condition noted that is inconsistent with the WMP initiatives or CPUC General Orders."

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Defects Identified in 2020 (Finding #)	Associated Circuit Name	Defect Type	Description of Defect	Date Defect Identified	Corrective Action	Date Defect Corrected	Priority Level of Corresponding Corrective Tag	Location of Defect (Lat/Long)
2	North Shore 4kV	General	Vegetation clearance of pine tree next to pole 31476 CIT Pole #31476 CIT HFTD 2	10/27/2020	Response: "Subject tree had been previously limbed to maintain clearance from electric facilities in accordance with GO 95 Rule 35, Exception 4 which allows for clearances greater than 6 inches, but less the Table 1, Case 14E (48 inches). Facilities and vegetation are in compliance with GO 95; no action is required."	10/27/2020	2	(34.2672571,-116.9368127)
3	North Shore 4kV	General	Next to 5150BV	10/27/2020	No action was taken	10/27/2020	3	(34.2721483,-116.9324322)
4	North Shore 4kV	GO95 General Order 95 Defect Code 1109	1109.1 ground wire broken or uncovered I verified the weather station was installed at this location Fawnskin Weather Station BV11050	10/27/2020	Exposed ground wire was repaired on 11/05/20	11/05/2020	3	(34.2618513,-116.9253189)