

Via Electronic Mail

September 12, 2023

Caroline Thomas Jacobs
Director
Office of Energy Infrastructure Safety
715 P Street
Sacramento, California 95814
Caroline.ThomasJacobs@energysafety.ca.gov

Subject: Bear Valley Electric Service, Inc. Request for 2023 Safety Certification Pursuant

to Public Utilities Code Section 8389

#### Dear Ms. Jacobs:

Section 8389(f)(2) of the Public Utilities Code<sup>1</sup> provides that an electrical corporation seeking a subsequent safety certification must submit a request to the Office of Energy Infrastructure Safety ("OEIS" or "Energy Safety") prior to the expiration of an existing safety certification. Bear Valley Electric Service, Inc. ("BVES" or "Bear Valley") was previously granted a safety certification on December 13, 2022. The 2023 Safety Certification Guidelines ("2023 Guidelines") issued by OEIS states that an electrical corporation seeking a safety certification must submit safety certification requests according to a separate schedule issued by Energy Safety.<sup>2</sup> Energy Safety issued a Schedule for 2023 Safety Certification Requests, which requires Bear Valley to submit its Safety Certification request prior to September 13, 2023. Thus, this request is timely filed.

Section 8389(f)(2) provides that the request for a subsequent safety certification include documentation that it has satisfied the requirements of Section 8389(e). In addition, the 2023 Guidelines provide further guidance on satisfying the statutory requirements.

<sup>1</sup> All statutory references herein are to the California Public Utilities Code, unless specifically stated otherwise.

<sup>&</sup>lt;sup>2</sup> Office of Energy Infrastructure Safety's Safety Certification Guidelines (June 28, 2023), OEIS Docket No 2023-SCs, p. 6.

This letter summarizes how BVES meets all the relevant requirements of Section 8389 and the 2023 Guidelines, as further documented by the supporting materials referenced herein or attached hereto.

BVES respectfully requests a safety certification in accordance with Section 8389 and the 2023 Guidelines. Pursuant to Section 8389(f)(4), Bear Valley's existing safety certification shall remain valid until OEIS acts on this request.

#### 1. An Approved Wildfire Mitigation Plan (Section 8389(e)(1)).

BVES submitted its 2022 Wildfire Mitigation Plan Update ("2022 WMP Update") to OEIS on May 6, 2022. On December 6, 2022, OEIS issued its final decision approving Bear Valley's 2022 WMP Update. In Resolution SPD-11, dated February 23, 2023, the California Public Utilities Commission ("Commission") ratified Energy Safety's final decision approving Bear Valley's 2022 WMP Update.

This documentation satisfies the requirement in the 2023 Guidelines that in an electrical corporation's 2023 Safety Certification submission, the electrical corporation must document the date of its most recently approved wildfire mitigation plan or update, and the date it was approved by Energy Safety.<sup>3</sup> A copy of Bear Valley's approved 2022 WMP Update is available on Bear Valley's public website at www.bves.com.

#### 2. Good Standing (Section 8389(e)(2)).

Section 8389(e)(2), as well as the 2023 Guidelines, provide that in order to receive a Safety Certification, the electrical corporation must provide documentation that the electrical corporation is in good standing, which can be satisfied by the electrical corporation having agreed to implement the findings of its most recent safety culture assessment performed pursuant to Section 8386.2 and paragraph (4) of subdivision (d) [of Section 8389], if applicable.

According to the 2023 Guidelines, in its Safety Certification submission, an electrical corporation must document its agreement to implement the findings of its most recent safety culture assessment undertaken by Energy Safety or its contractors. If a safety culture assessment has been carried out pursuant to Section 8386.2 [independent third-party evaluator], the electrical

 $<sup>^3</sup>$  Office of Energy Infrastructure Safety's Safety Certification Guidelines (June 28, 2023), OEIS Docket No 2023-SCs, p. 2.

corporation must also document in its submission an agreement to implement the findings of that safety culture assessment.<sup>4</sup>

On May 8, 2023, OEIS issued a Safety Culture Assessment ("2022 SCA") report to BVES. In a May 9, 2023 letter to OEIS, BVES agreed to implement all of the findings and recommendations for improvements in its 2022 SCA. It is the most recent Safety Culture Assessment for BVES.

In July 2023, BVES employees and contractors involved in WMP work completed the 2023 Safety Culture Assessment surveys and BVES submitted the documents requested by Energy Safety's team for the 2023 Safety Culture Assessment.

On August 1, 2023, BVES filed with Energy Safety and the Commission Bear Valley's Q2 2023 BVES Quarterly Notification to the OEIS Regarding Bear Valley's Implementation of its WMP Pursuant to Public Utilities Cost Section 8389(e)(7) ("Q2 2023 Safety Report"). The Q2 2023 Safety Report included the following information:

- BVES has fully implemented all of the recommendations of its 2021 SCA report.
- BVES has initiated actions to implement the recommendations of the 2022 SCA report, as described below.

#### Energy Safety recommended:

O Refine Contractor Strategic Improvement Plan: In collaboration with BVES's contractors, Energy Safety finds BVES should review and refine its current strategic improvement plan to address gaps in overall safety culture for contractors. This plan should propose ways to improve contractor relationships with BVES supervisors and contractor empowerment to address problems in a timely fashion. This recommendation builds upon a 2021 SCA recommendation.

<u>In response to this recommendation</u>, in collaboration with its vegetation management contractor, BVES developed and implemented an action plan to address safety culture issues, in particular regarding the flow of information about wildfire hazard mitigation. In

 $<sup>^4</sup>$  Office of Energy Infrastructure Safety's Safety Certification Guidelines (June 28, 20232), OEIS Docket No 2023-SCs, p. 2.

addition, BVES worked closely with its vegetation management contractor to ensure that the action plan to address safety culture issues is successfully implemented. Below are additional details on how BVES implemented this SCA recommendation. Specifically, BVES is:

- o Refining its strategic improvement plan to address gaps in overall safety culture for contractors.
- Working with contractors to understand why they have lowered their opinion about safety culture and implement specific measures to address their concerns.
- o Implementing formal contractor safety program that includes improvements to onboard, train, and otherwise engage contractors in its strategic plan.
- o Conducting briefings to contractors' workers on the importance of their work in increasing public safety and mitigating wildfire.
- o Engaging BVES supervisors to listen to, support, and empower contractors.

#### **Energy Safety recommended:**

O Address Safety Culture Opportunities for the Design and Construction

Business Unit: Energy Safety stated BVES should develop and implement a strategic improvement plan to address the workforce survey result indicating that Design and Construction employees have a less positive experience of safety culture in the wildfire mitigation work context than other employees.

The survey also indicated that this unit may lack effective supervision. This is a new recommendation in response to the 2022 SCA inputs. Although BVES's 2022 workforce survey showed improvement over 2021 in the overall score and across the different statement categories, comparisons of results by business unit revealed inconsistencies in the way employees experience safety culture at BVES, especially in the results from the Design and Construction business unit. BVES should undertake measures to improve the safety culture experience of this business unit.

#### In response to this recommendation, BVES is:

- O Conducting one-on-one meetings between the BVES President and Design & Construction employees to further gage their safety culture views and refine a plan to improve their safety culture. These sessions are designed to be open two-way conversations and to solicit employee inputs and perceptions on safety culture at BVES.
- o Ensuring that the concerns indicated on the surveys by Design & Construction employees are being addressed by senior management & supervisors.
- o Reinforcing the elements that promote improved safety culture and safety related communications.

#### Energy Safety recommended:

o Strengthen Safety-Enabling Systems: Energy Safety indicates BVES should strengthen its safety-enabling systems by improving protocols for responding to near misses and hazards, including their reporting and management. This is a new recommendation in response to the 2022 SCA inputs. BVES should continue to build its "Continuous Improvement Program" described in its 2022 safety culture objectives to improve employee understanding of the importance of submitting incident reports, including near-miss reports. BVES should strengthen hazard and near-miss response, recognition, and reporting through increased worker involvement, worker training, and formal recognition of workers for reporting near misses and hazards. In particular, BVES should conduct at least one training on near-miss reporting protocols. BVES should identify and address any barriers to reporting within its safety-enabling systems (procedures, software, communication, etc.).

#### In response to this recommendation, BVES is:

o Conducting companywide training on "near miss" and "hazard" reporting led by senior management including clear definitions and instructions on recognizing each event type.

- o Ensuring that employees understand that senior management encourages "near miss" and "hazard" reporting by directly engaging supervisors and rewarding employees that make meaningful "near miss" reports.
- o Documenting and tracking the number of safety event reports submitted by employees on a monthly basis as well as the quality of the reports.
- o Having management assess the quality of the near miss and hazard reports, noting any trends identified, and identifying actions taken to improve safety based on the reports.

#### **Energy Safety recommended:**

o Implement Use of Specific Leading Indicators: Energy Safety notes BVES should further develop and implement the use of specific leading indicators to improve safety and health outcomes in connection with its 12-month goal to establish, collect, and publish a set of safety metrics, including leading indicators, to evaluate safety. This is a new recommendation in response to the 2022 SCA inputs. Leading indicators can play a vital role in preventing worker fatalities, injuries, and illnesses and strengthening other safety and health outcomes in the workplace. Leading indicators can also be used to design proactive, preventive measures. They can shed light on issues with the effectiveness of safety and health activities and reveal potential problems in a safety and health management system. BVES should prioritize tracking leading indicator safety performance metrics and identify specific leading indicators to provide insights into potential interventions. Some metrics to add might include the number of employees BVES trains in near-miss reporting, how many and which kinds of remediation it undertakes in response to hazard reports, and the number of employee-led hazard solutions it implements.

#### In response to this recommendation, BVES is:

o Tracking the following leading indicators: safety training completion rate, number of pre-job briefs (tailboards), number of Job Hazard Analyses (JHAs) performed, number of Vegetation Management Quality Checks performed,

- number of WMP work Quality Checks performed, number of near misses, and number of contractor-BVES meetings on safety items.
- o Including a discussion of leading indicators at monthly employeemanagement safety committee meetings.
- o Including leading indicators on monthly safety dashboard email to employees.
- o Having supervisors review and discuss leading indicators with employees.

#### 3. Board Safety Committee and Safety Reporting (Sections 8389(e)(3) and 8389(e)(5)).

To receive a Safety Certification, Sections 8389(e)(3) and 8389(e)(5) require that an electrical corporation provide documentation that it meets two requirements related to its Board of Directors.

Sections 8389(e)(3) requires that the electrical corporation's Board of Directors have a safety committee comprised of members with appropriate and relevant experience. To ensure that this requirement is satisfied, in compliance with the statutory requirement and the 2023 Guidelines BVES provides the following:

- Safety Committee Member Resumes. The resume for each Safety and Operations
  Committee ("Safety Committee") member is attached as Appendix A, clearly
  indicating each member's relevant experience.
- 2. Safety-Related Education and Experience of Committee Members. A summary of the safety-related education and experience for each Safety Committee member that is relevant to their role at BVES is attached as Appendix B.
- 3. Safety Committee's Role in Overall Corporate Governance. A description of how the Safety Committee functions within Bear Valley's governance structure and its role with respect to BVES decision-making and accountability is attached hereto as Appendix C
- 4. Report on Significant Topics Covered by the Safety Committee Since Issuance of Last Safety Certification. A report on significant topics covered by the Safety Committee since the issuance of the last Safety Certification is attached hereto as Appendix D.
- 5. Description of Safety Committee Recommendations and Implementation. A description of any Safety Committee recommendations and an indication whether

- BVES has implemented these recommendations since issuance of the last Safety Certification are attached hereto as Appendix E.
- 6. Board-Level Reporting to Commission and Energy Safety on Safety Issues. Section 8389(e)(5) requires that an electrical corporation has established board-level reporting to the Commission and OEIS on safety issues. A Board member, along with the chief safety/risk officer (or equivalent) must brief the Commission and Energy Safety on safety performance during the public meeting. As required by the 2023 Guidelines, 5 attached hereto as Appendix F are details of such public meeting, including the agenda of topics to be covered, and any materials used or referenced in such public meeting to demonstrate that BVES has met this requirement.

#### 4. Executive Compensation (Sections 8389(e)(4) and 8389(e)(6)).

To receive a Safety Certification, Sections 8389(e)(4) and 8389(e)(6) require that an electrical corporation has established an executive compensation structure that meets the statutory of those code sections and has been approved by OEIS.

On March 13, 2023, BVES submitted its 2023 Executive Compensation Plan to OEIS for approval. On August 8, 2023, OEIS issued a draft decision<sup>6</sup> indicating approval of Bear Valley's 2023 Executive Compensation Plan. BVES will submit a letter to OEIS that supplements this request once OEIS has issued a final decision regarding Bear Valley's 2023 Executive Compensation Plan.

#### 5. Implementation of Wildfire Mitigation Plan (Section 8389(e)(7).

To receive a Safety Certification, Section 8389(e)(7) requires that an electrical corporation provide documentation that it is implementing its approved wildfire mitigation plan ("WMP"). It further provides that the electrical corporation submit a notification of implementation to OEIS on a quarterly basis detailing progress on its WMP, the recommendations of its most recent Energy Safety and Commission safety culture assessment(s) performed pursuant to Sections 8386(d)(4) and 8386.2, and a statement of the recommendations

<sup>&</sup>lt;sup>5</sup> Office of Energy Infrastructure Safety's Safety Certification Guidelines (June 28, 20232), OEIS Docket No 2023-SCs, p. 3.

<sup>&</sup>lt;sup>6</sup> Letter from Office of Energy Infrastructure Safety Director Caroline Thomas Jacobs to Executive Compensation Stakeholders, *Office of Energy Infrastructure Safety Draft Decision on Bear Valley Electric Service Company Inc.*'s 2023 Executive Compensation Structure Submission, of August 8, 2023, OEIS Docket No 2023-EC.

of the Board of Directors' Safety Committee meetings and a description of the implementation of those recommendations. Bear Valley's quarterly notification letters ("QNLs") to OEIS, with copies to the CPUC, were submitted as follows:

- 2022 Q3 on November 1, 2022,
- 2022 Q4 on February 1, 2023,
- 2023 Q1 on May 1, 2023, and
- 2023 Q2 on August 1, 2023.

Copies of the QNLs are attached hereto as Appendix G.

In conclusion, for all of the foregoing reasons and associated documentations, BVES respectfully requests that OEIS issue a Safety Certification to BVES in accordance with Section 8389(f)(2) and its 2023 Guidelines.

Please feel free to contact me if you have any questions regarding these materials.

Respectfully submitted

\_/s/\_\_Paul Marconi\_\_\_\_\_

President, Treasurer and Secretary

Bear Valley Electric Service, Inc.

Cc: 2023 Safety Certifications Docket (2023-SCs)

## APPENDIX A SAFETY COMMITTEE MEMBERS CURRICULUM VITAE

#### **RESUME of QUALIFICATIONS**

#### **SUMMARY OF EXPERIENCE**

Senior Energy and Water Utility Executive with proven record of regulatory, legislative and public affairs successes for a major national energy company, two national energy associations, and one state water utility association. Forty-five years' experience in natural gas utility marketing and media relations, wholesale electric power generation and power marketing, power plant siting and development, federal energy regulatory policy, water utility regulatory and legislative affairs, as well as acquisitions and consolidation of small water utilities. Areas of expertise include:

- Water/Electric Utility Regulatory Affairs
- Water/Electric Utility Legislative Affairs
- Cost-of-Service Ratemaking/Rate Design
- Federal ISO and State PUC Regulatory Policy
- Water/Electric Utility Public Policy
- Association Management
- Wholesale Electric Power Marketing

- Merchant Power Plant Screening/ Development
- Business Presentations and Proposals
- Media Relations/Public Affairs
- Conference Program Development
- Staff Support for Boards of Directors
- Coalition Building/Grass Roots Support
- Utility Marketing/Communications

#### **ACCOMPLISHMENTS**

- Served as the first Executive Director of the California Water Association for 14-plus years; successfully
  implemented its ongoing regulatory, legislative and communications plans. Was instrumental in the
  development and enactment of multiple water industry/California Public Utility Commission/State
  Water Resources Control Board legislative statutes and regulatory policies during that time.
- Served on the Board of Directors of the Electric Reliability Council of Texas (ERCOT) and was Board Chair
  in 2000-2001. Was one of the principals in the design and initial operation of the ERCOT Independent
  System Operator (ISO) wholesale market, the ERCOT retail electric market, and the integration of these
  two market designs with ERCOT's reliability responsibilities and obligations.
- Served on the Pennsylvania-New Jersey-Maryland (PJM) ISO's Members (policymaking) Committee from 1998 -2002 and chair of its Governance Committee. Helped refine PJM's market design and established a governance structure that provided equity for utilities, wholesale and industrial customers, power marketers, retail energy suppliers, independent power producers, and regulators.
- Served as a principal in the design and establishment of the North American Energy Standards Board (NAESB), and particularly its governance structure.
- Effectively managed the media relations programs of the American Gas Association and the Electric Power Supply Association.

#### **EMPLOYMENT HISTORY**

#### J.K. HAWKS & ASSOCIATES, INC. – President

2005 - 2020

Provided water/energy utility consulting services, including siting and permitting of natural gas-fueled power plants and water utility regulatory and legislative affairs.

#### **CALIFORNIA WATER ASSOCIATION – Executive Director**

2005 - 2020

Served as lead executive officer; managed the Association's regulatory, legislative, and communications programs; represented the Association before the California PUC, the State Water Resources Control Board, the Dept. of Water Resources, the Governor's Office and the state legislature.

#### JOHN K. (JACK) HAWKS

Managed the Association's state regulatory and legislative programs, as well as its media relations, external communications and planning functions.

#### **PG&E NATIONAL ENERGY GROUP**

1991 - 2003

#### **Vice President Regulatory Affairs and Market Policy**

(1998 - 2003)

Responsible for Regional Transmission Organization (RTO) and ISO regulatory policy development and implementation in PJM, New York ISO, New England ISO, Midwest ISO, ERCOT, Southwest Power Pool, RTO West and the California ISO. Ensured a favorable business environment for the company's capital assets and continually advocated for development of a functional wholesale market structure that optimized the company's market and energy trading activities.

#### **Vice President, Government Relations**

(1995 - 1998)

Responsible for federal and state legislative affairs, and for state regulatory affairs. Managed a dozen local consultants involved with advocating on behalf of the company in its local power plant development activities, as well its power plants in construction and operation.

#### Director, Public Affairs

(1991-1995)

Responsible for all local community activities, including advocacy, NIMBY efforts, and media relations with local municipalities, city councils, county commissions, planning commissions, legislators, etc., in connection with the development, construction and operation of approximately 15 different power plants in more than a dozen states from California to Florida.

#### **AMERICAN GAS ASSOCIATION -**

1975 – 1991

#### **Director, Public Information**

(1988 - 1991)

Responsible national media relations and all external communications; responsible for writing and preparation of senior officer speeches and presentations; editor of the Association's weekly government relations newsletter.

#### **Director, Advertising Programs**

(1986 - 1988)

Responsible for the natural gas distribution industry's national advertising program, which included preparation of print ads and television commercials that appeared in national business and newsweekly publications, as well as political talk shows, television news shows, and major televised sporting events.

#### Manager, Advertising & Promotion

(1981 - 1986)

Assisted the Director in all the above tasks and was solely responsible for the Association's business-to-business industrial and commercial advertising and advertorials, including cooperative marketing programs with manufacturers of natural gas-fueled appliances and equipment.

#### **Assistant Manager, Advertising & Promotion**

(1975 - 1981)

Similar to above, but without the sole responsibility of the I/C advertising.

#### **HONORS**

- Member of American Gas Association's Industrial/Commercial "Hall of Flame"
- Member of American Gas Association's Residential "Hall of Honor"
- Recognized by NAESB for the instrumental role he had in its formation
- Recognized by the California State Senate for his contributions to California water utility policy.

#### **OTHER QUALIFICATIONS**

- MBA, George Mason University, Fairfax, VA
- BS Journalism & Mass Communications, University of Kansas, Lawrence, Kansas

#### JOHN K. (JACK) HAWKS

- Attended College of William & Mary, Williamsburg, VA; majored in political science.
- Accredited by the Public Relations Society of America

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#### Target: Board of Directors - Electric Utility & Power Generation Sectors

#### Expert in Mergers & Acquisitions, Operations, Risk Management, and Strategic Plan Development

Experienced board member with 25+ years of experience in the Electric Utility and Power Generation, Education, and Business Development sectors with a history of award-winning performance as a visionary leader for development planning, goal setting, budget forecasting, and advancing corporate growth. Repeated success propelling teams to improve operational efficiencies including performance metrics in support of the corporate strategic plan. Applied varied experience that provides valuable perspective to boards to cultivate a sense of partnership across the company. Incorporated a drive for growth with fiscal responsibility and emphasis on generating the highest possible ROI/ROR.

#### Highlighted executive achievements include:

- Achieved 8% YoY growth in annual revenues for 2018 & 2019 (Northwest Lineman College)
- ➤ Generated enrollment growth by 10-30% between campuses (Northwest Lineman College)
- Received Campus of the Year Award 2017 & 2018 (Northwest Lineman College)
- Successful negotiation of union contract renewals (BVES)
- ➤ In 2015, Achieved a 9.7% actual Rate of Return against a budgeted 8.6% through an ambitious capital improvement program. (BVES) =
- ➤ In 2015, ROE was 12.26% compared to a forecasted 11.32%. Earnings per share (EPS) were \$.07 vs \$.06 budgeted.
- > Developed ambitious capital improvement programs (BVES), to include undergrounding of distribution
- Former Executive Member of the Southern California Leadership Council Energy Subcommittee formed in 2012 to address energy policy and quality of life issues in Southern California. (BVES)
- Extensive experience dealing and negotiating with the California Public Utility Commission, the Federal Energy Regulatory Commission and the North American Electric Reliability Council. (MMC Energy)

#### EXECUTIVE LEADERSHIP PERFORMANCE

#### Chief Education Officer/ VP of Campus Operations (2019 – Present) | Campus President (2016 – 2019)

#### Northwest Lineman College (https://lineman.edu/) | Ada County, Idaho | 2016 - Present

A private vocational technical college with a concentration on careers in the electric power, telecom, and natural gas industries offering career training programs in partnership with a Fortune 500 company, Quanta Energy Services.

SCOPE: Curriculum Development & Program Development • 4 U.S. Campuses • 8,000+ Students • 16 Direct Reports • 1,000+ Employer Facilitation • Manage education operations, finance, enrollment engagement, and business standards.

**SUMMARY OF CONTRIBUTIONS:** Advanced quickly from Campus President to the Chief Education Officer based off the ability to advance to positions of increasing scope, responsibility, and complexity while delivering against operational, team, and financial performance goals. Serve as one of five officers reporting to directly to the CEO. Provide educational strategic planning and direction related to proven best practices in the power delivery, gas, and telecommunications industries. Establish B2B relationships to fuel student's training and learning experience for future career opportunities. Recruit, onboard, train, and lead a department of 16 curriculum developers, graphic designers, and instructional designers to develop world-class educational materials for the utility trades. Assists in the creation of new programs and courses.

#### **SELECTED ACCOMPLISHMENTS:**

- > Initiated weekly situation reports from all four campus presidents to drive enrollments and campus objectives.
- > Conducted mock audits every six months leading to all campuses receiving outstanding grades through our internal audit process in advance of the actual audit dates.
- ➤ Worked extensively with the marketing group to analyse the student market to further focus on areas that could have the greatest impact.
- Accelerated an 8% YoY growth in annual revenues for 2018-2019; drove enrollments up by 10-30% on each campus; reduced expenses 3-5% annually for 2018-2019.

#### **Director**

#### Bear Valley Electric Service (https://www.bves.com/home/) | Big Bear Lake, CA | 2010-2016

Bear Valley Electric Service is a leading provider of power to the Lake Williams, Erwin Lake, Sugarloaf, Big Bear City, Big Bear Lake, Moonridge, Fawnskin and Boulder Bay areas.

**SUMMARY OF CONTRIBUTIONS:** Created accountability within the organization by performing change management initiatives including the reconstruction of the entire team of approximately 30 employees, revising policies and procedures, and establishing internal KPIs in support of the corporate strategic plan. Provided the utility with instantaneous data that was previously unavailable by replacing analog mechanical meters for every customer with automated digital meters. Improved labor costs with better visibility on the scope of power outage events.

#### **SELECTED ACCOMPLISHMENTS:**

- ➤ Decreased customer informal CPUC complaints by 30% with only two complaints for 2012.
- Reliability of electrical service was 99.99%.
- > Doubled net income in the first year of this position through successful general rate case filing and cutting of operations and maintenance expenses.
- ➤ Initiated capital improvement to replace all meters with AMRs resulting in a reduced labor expenses and \$200K in savings
- ➤ Held down wage increases to 2.5%, 2.25% and 2.25% for 2011, 2012 and 2013, significantly below the union's requested increases.
- ➤ Co-Authored Bear Valley Electric Enterprise Risk Assessment Matrix Identifying Key Operational and Financial Risks and actions to mitigate identified risks
- ➤ Completed phase 1 & 2 of the Big Bear Boulevard Undergrounding Project and completing the designing and planning for Phases 3 &4

#### **Senior Vice President**

MMC Energy, Inc. (http://www.mmcenergy.com/) | New York, NY | 2006-2009

**SUMMARY OF CONTRIBUTIONS:** Established a business strategy for the California region to include analyzing market conditions, contacting current owners to discuss plans to divest assets, and performing due diligence during advanced stages of bid proposals for renewable and fossil-fired facilities. Developed strategy for taking company through an intensive public offering and lining up investors for key capital purchases and company growth.

#### **SELECTED ACCOMPLISHMENTS:**

- Negotiated a twenty-five-million-dollar loan facility with GE for the purchase of gas turbines
- > Successfully permitted a repowering application through a conditional use permit process utilizing a mitigated negative declaration

#### ADDITIONAL PREVIOUS CAREER EXPERIENCE

Director of Operations, Maintenance, and Construction | Commissioning, Enron Wind/GE Wind Corporation | 1998 – 2001
International Regional Manager | GE Power systems/Stewart and Stevenson | 1996 – 1998
Plant Manager | Stewart and Stevenson Operations, Inc. | 1995 – 1996
Plant Manager | LFC Power Systems | 1993 – 1995

#### **EDUCATION**

Executive Graduate Certificate in Business Administration - University of Notre Dame, Notre Dame, Indiana Master of Science, Organizational Development - Chapman University, Orange, CA

Master of Arts, Education and Training - Chapman University, Orange, CA

Bachelors Business Administration - National University, San Diego, CA

Graduate, Office of Water Programs, Water Distribution. System O&M - California State University Sacramento

California General Building Contractor's License • Navy Nuclear Power Training

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<u>Summary</u>: Excellence in operational leadership of businesses, customer programs, production facilities, power plants, personnel, technical programs, and engineering projects. Specializes in developing and leading Teams to achieve **Operational Excellence**.

- President of a regulated investor owned utility (IOU) with accountability for P&L, operations, energy supply, financial performance, regulatory compliance, customer service, public relations and leadership of employees.
- Captain of a Los Angeles Class attack nuclear submarine and Base Commander of major Navy nuclear submarine base.
- Director of Operations of engineering and software business unit in oil & gas and power generation with P/L accountability.
- Operations & Planning Manager for electric power generation, transmission and distribution of a regulated IOU.
- Proven management of large matrix organizations (800+personnel), high value assets (\$2B+), programs (\$1B+), projects (\$500MM+) and operating budgets (\$104MM+) in defense, power generation (nuclear, fossils, renewables) and oil & gas.
- Significant experience in risk based methodologies, reliability engineering, mechanical integrity, predictive & preventive maintenance, inspection & remediation programs, outage planning & execution & operator behavioral performance programs.
- Business development leader with excellent sales growth raised contracted backlog by 22% and sales pipeline by 46%.
- Change leader who implemented Geographic Information Systems (GIS), Outage Management System (OMS), Supervisory Control & Data Acquisition (SCADA), Enterprise Resource Planning (SAP), PeopleSoft Financials & HR Manager (Oracle), Customer Relationship Management (CRM – MS Dynamics), Voice of Customer (Net Promoter Score) and ISO 9001 QM.
- Strong record of building high performance technical teams, establishing operational excellence and achieving goals. Skilled in budgeting for profit, strategic planning, managing operations and production, leading continuous improvement and quality programs, managing change, cost control strategies, capture management, and building and managing Customer relationships.

Converts high-level strategic goals into day-to-day measurable and executable tasks. Motivates Team to deliver results.

<u>Skills</u>: Executive Leadership; Strategic Planning; Business Development; Business Operations (P/L); Budgeting & Forecasting; Program & Major Project Management; Risk-Based Decision Making; Team Building, Mentoring, Personnel Management; Engineering & Technology; Equipment Reliability & Asset Mechanical Integrity; Power Plant and Oil & Gas Operations; Environmental, Safety & Code Compliance; Training; Leading Change, Program Implementation; Sales Proposals, Vendor/Supplier Qualification, Contracts & Negotiation; Continuous Process Improvement, Quality Management Systems, Root Cause Analysis; Business Analytics, Metrics, Optimization; Strategic Messaging, Public Speaking; Customer Relationship Management; Voice of Customer Programs; Global Business; Government, Defense & Energy, Undersea Operations.

Education: M.S. Engineering Management, Catholic University of America, May 2001 (GPA: 4.0) B.S. Chemical Engineering, Tufts University, May 1984 (Cum Laude GPA: 3.03)

Languages: English (fluent), Italian (fluent), Spanish (past fluency), French (past fluency)

#### **Experience:**

Bear Valley Electric Service, Inc. (subsidiary of American States Water Company)

Big Bear Lake, CA (6/2014 – Present) California regulated investor owned utility (IOU) providing electric generation, transmission and distribution in Big Bear Lake Valley to 24,500+ customers.

President, Treasurer, Secretary, Board Director, & Safety & Operations Committee Chairman (7/2020-present) Reports directly to Company's Board of Directors, BVES Inc. and absolutely accountable for the Profit and Loss (P&L) results of BVES, Inc. and directing the overall operations of BVES, Inc., earning an adequate rate of return for BVES, Inc., as well as developing and executing strategic plans with a 5±year horizon.

- As President performs duties of the chief executive officer of the corporation and has, subject to the control of the Board, general supervision, direction and control of the business and officers of the corporation.
- As Treasurer performs the duties of the chief financial officer of the corporation.

*Director* (8/2016-6/2020) Reports to CEO/President, GSWC with absolute accountability for management of the Electric Division including operations, planning, financial management and supervision of work performed by staff, consultants and contractors. Accountable for achieving P&L goal including authorized ROR, target EPS, and growing Rate Base.

- Led 46 full-time employees & contractors including energy & business analysts, customer service, accounting & purchasing, engineers, planners, IT tech, IBEW union linemen and power plant operators to produce a remarkable record of achievement. Established culture focused on excellence in quality of service to customers, safety, and maximizing shareholder value through superior financial performance by innovative solutions, staff empowerment to resolve challenges, minimizing life-cycle costs, conserving resources, and leveraging diversity among employees and vendors. Provided direct leadership on development and timely filing of General Rate Case (GRC) 2018-2022 a significant undertaking for BVES' small staff. Worked constructively with legal support and specialized consultants to ensure testimony substantiated base revenue requirements, rate design and cost allocation, cost of capital & rate of return proposal, capital projects, staff reorganization, and special programs. Implemented tight process control ensuring all communications with Commission and intervening parties were documented and ensured over 70 intervener requests were responded to in accurate and timely manner. Personally prepared substantial testimony on results of operations, operations & maintenance, capital projects and risk-based decision making process. Prepared rebuttal testimony in these areas in response to intervener testimony. Key player in productive settlement discussions. Coordinated effective forward leaning public engagement strategy with positive results.
- Demonstrated strong leadership and management in the area of reducing the risk to wildfires for the BVES service area. Implemented detailed and highly effective strategy to mitigate utility caused wildfires. Presented his program to Board of Directors (ASWC). Supported study to ensure insurance coverage was sufficient to protect the Company in the event of a wildfire. Developed Wildfire Mitigation Plan per SB-901 and presented the plan to the President of the Commission, other Commissioners, Deputy Director CAL FIRE, Deputy Executive Director Safety Enforcement Division, and other parties to the WMP proceeding. Developed detail risk evaluation model for each proposed wildfire mitigation measure to quantify the risk reduction and the risk spend ratio to better inform the decision making process on which mitigation measures to implement and the timeframe to execute them. Tracked wildfire legislation and regulation developments in the legislature and at the CPUC and provided updates to the Board of Directors. BVES's comprehensive WMP included innovative projects setting new trends in the T&D industry sector such as: Fuse Upgrades, Tree Attachment Removal Project, Pole Loading Assessment & Remediation Program, Radford Line Covered Conductor Replacement Project, Covered Wire Installation Program, Install Remote Weather Stations, Additional On-Ground Inspection, Electrical Preventative Maintenance Program, and LIDAR Inspection.
- Key player on project team for a reorganization plan to spin BVES off from being a division of Golden State Water Company to a separate, direct subsidiary under American States called BVES, Inc. Participated in the due diligence effort, which was critical to senior management's decision making on whether or not to proceed with the effort. Provided support in developing the application filed with the CPUC to gain approval for the reorganization. Worked closely with public relations firm to develop stakeholder, public and employee engagement and messaging strategy. Gained IBEW Local 47's support for the proposed reorganization and obtained their commitment to send a letter of support to the CPUC. Engaged local government officials, state assembly member, and state senator to inform them of the reorganization. Oversaw a myriad of transition details including transfer of power purchase agreements, contracts, franchise agreements, environmental and operating permits, and physical property and easements; development of BVES Inc. policies and procedures; establishing mechanisms to transition logos, website, social media, and other customer and stakeholder media; and working with accounting and IT department to ensure processes in place to cutover customer billing and accounting system applications.
- Led efforts to develop 7.9 MW AC single axis tracking utility owned solar generating facility and made significant progress toward achieving project approval that will benefit all stakeholders (landowner, customers and BVES). Negotiated purchase sales agreement and developed application for facility construction to CPUC. Led all aspects of business case development, contracting an EPC, permitting, legal representation, ITC recoupment and engineering design and permitting. Briefed numerous stakeholders on the project to gain their support including GSWC Board of Directors, BBARWA Board of Directors, City of Big Bear Lake City Manager, California Public Advocate, and CPUC Energy Division. Worked closely with General Electric (EPC) in conducting preliminary CEQA and site surveys. Participated in settlement negotiations with California Public Advocate and reached a settlement agreement, which was presented to the ALJ for the CPUC proceeding. Engaged public relations firm to conduct public engagement for the project. Conducted several media interviews regarding the project as well as talks with various community groups.
- Oversaw the innovative development of annual and seasonal long-term power purchase agreements and the associated application to the CPUC for approval. The executed PPAs reduce BVES's long-term fixed power supply costs (when compared to previous PPAs) by 12.8% or \$4,016,087 over 5 years, which translates into a reduction in system average rate (SAR) of 2.07%. His Team looked at the value and risk propositions of fixed, shaped and variable power purchase products and developed the combination that provides the best value for BVES customers based on forecasted load. Played a key role in negotiating the final PPA terms and conditions with energy suppliers to allow for the novation of the PPAs upon the close of the BVES Inc. transaction. Oversaw Integrated Resource Plan(IRP) development.
- Expertly managed Transportation Electrification (TE) application to CPUC on a very tight timeline. Worked with consultants to develop two TE pilot programs that install electric vehicle (EV) charging stations and institute time-of-use

- (TOU) rates relevant to the BVES service area. Provided oversight in producing direct testimony to support the programs and rebuttal testimony to intervening party testimony. Led settlement talks and quickly reached common ground with interveners to settle.
- Implemented BVES's risk-based decision-making framework to evaluate safety & reliability risks and to ensure GRC mitigates high risk issues. Drafted BVES's Risk Management Manual, which CPUC adopted as template for small California IOUs. Presented BVES's program at CPUC En Banc to other utilities and public as guest speaker and panelist.
- Led efforts to file an application to CPUC to put in place a Distributed Generation tariff for customer owned renewable sources. The program replaced the Net Energy Metering (NEM) program, which closed January 1, 2018. In the DG program, customers are to be compensated based on the 12-month average Net Surplus Compensation Rate published by SCE (CAISO requirement) plus avoided transmission access costs and avoided line losses. True-up will be monthly instead of annually. Additionally, the NEM program agreements were formally capped to 20 years at which point existing NEM customers would transition to the DG tariff. This application was not opposed and was approved by the CPUC as requested.
- Working closely with Regulatory Affair, he was highly involved in current state regulatory issues including: R.5-02-020 OIR on Further Development of Renewables Portfolio Standard Program, R.14-08-013 OIR on Distribution Resources Plan, R.15-05-002 OIR on Risk Based Decision Making, R.15-05-006 OIR on Fire Safety Maps and Prevention Measures, R.15-06-009, OIR Physical Security of Electric Utility Facilities, R.16-02-007 OIR on Integrated Resource Planning, R.17-05-010 (issued May 19, 2017) OIR to Consider Revisions to Electric Rule 20 and Related Matters, I.17-06-027 and R17-06-028, OII into the Creation of a Shared Database or Statewide Census of Utility Poles and Conduit in California, R.17-07-007 OIR to Consider Streamlining Interconnection of Distributed Energy Resources and Improvements to Rule 21, R.17-10-010 OIR to Consider Amendments to General Order 95, R.18-03-011 OIR Regarding Emergency Disaster Relief Program to Support California Residents, R.18-04-018 OIR to Evaluate the Mobile Home Park Pilot Program and to Adopt Programmatic Modifications, R.18-04-019 OIR Strategies and Guidance for Climate Change Adaptation, R.18-07-005 OIR New Approaches to Disconnections and Reconnections to Improve Energy Access and Contain Costs, R.18-10-007 OIR to Implement Electric Utility Wildfire Mitigation Plans Pursuant to Senate Bill 901, R.18-12-005 OIR to Examine Electric Utility De-Energization of Power Lines in Dangerous Areas, R.19-07-017 OIR to Consider Authorization of a Non-By Passable Charge to Support California's Wildfire Fund, and I.19-11-013 OII on the Commission's Own Motion on the Late 2019 Public Safety Power Shutoff Events.
- Worked hard to engage local leadership and stakeholders improving Company's public image. Held office calls with local leaders including State Senator Mike Morrell, State Assemblyman Jay Obernolte, City of Big Bear Lake Mayor and Councilmen, County Supervisor, and City Manager. Conducted numerous interviews with local media (radio and newspaper) generating positive press about BVES. Spoke about the Company at various local groups and organized community events such as Earth Day gatherings showcasing along with sponsors environmental stewardship. Launched BVES's Facebook platform reaching over 1,700 customers in first 2 weeks and providing daily updates to community.
- Expertly managed short notice change to Mobile Home Park (MHP) conversion pilot project when the designated MHP (90 units) was changed to a 250 unit MHP, a \$5.2 million project. Typically, a 24-month project, his Team designed the project, contracted beyond-the-meter work and underground infrastructure, procured materials and equipment, and installed distribution system within 7 months.
- Implemented 5-year strategy to insert technology into BVES grid to improve safety, reliability and quality of electric service. Geographic Information System (GIS), Outage Management System (OMS), and Interactive Voice Recognition (IVR) System were fully deployed. Instituted significant customer website upgrade including fillable online forms. Established a \$3.9 million project to install a fiber optic network in BVES's service area and automate the gird.
- Promoted staff reorganization to modify 5 positions and eliminate 3 positions in order to better fit requirements of a safety and reliability focused; data driven; and advanced technology oriented electric utility. Plan reduced costs ~\$165,000/yr.
- Worked closely with HCM experts to resolve sensitive staff issues and ensure qualified replacements were hired.
- Maintained productive and excellent working rapport with IBEW Union representatives and settled with the union to establish a 3-year contract, which ratified in January 2018, keeping wages slightly under CPI.
- Established 3-year \$2,600,000 competitively bid contract significantly improving vegetation management program well ahead of changes in CPUC regulations. Improvements increased clearance zones around power lines, established "blue sky" requirement for 34.5 kV system, implemented program to remove dead trees outside the clearance zone that might fall into power lines, and significantly improved documentation of tree trimming activities.
- Ensured numerous regulatory compliance reports were submitted accurately on time to CPUC, Environmental Protection Agency(EPA), South Coast Air Quality Management District(SCAQMD), California Independent System Operator(CAISO), California Air Resources Board(CARB), State Water Resources Control Board(SWRCB), Energy Information Administration (EIA), California Energy Commission(CEC), Federal Energy Regulatory Commission(FERC), and U.S. DOE.
- Proven strong operational leadership in coordinating restoration activities during major outages focusing on public safety first, restoration of service and keeping Company officials, local community leaders and customers informed. During

Holcomb Fire, which resulted in a loss of BVES's main transmission supply, he rallied Staff to dispatch the generation facility, energize an alternate supply line and implement rotating outages to minimize impact on customers. In aftermath, he presented BVES's actions to City of Big Bear Lake City Council and received praise for the Company's efforts.

*Operations & Planning Manager* (6/2014 – 8/2016): Reports to Director, BVES with total accountability for generation, transmission and distribution operations, maintenance, engineering planning and design, and site IT.

- Walked into budget deficit and implemented cost controls to achieve \$1.4MM in savings (surplus) on a \$12.6MM budget in 1st 6 months resulting in BVES' 2014 ROR being 11.66% in excess of adopted ROR (8.60%).
- Masterfully managed \$19.6MM capital budget extracting maximum value for shareholders and ratepayers.
- Established frame work for risk based decision making process for asset management, system operations and capital improvement planning.
- Expertly led 24 employees (engineers, planners, IT techs, union linemen and power plant operators) to deliver safe reliable service. Achieved reliability of >99.99%, SAIDI at 48.2 min., and increased power plant availability from 57.1% to 95.8%.
- Managed a highly complex \$10 MM+ major overhead to underground distribution conversion project along 3 miles of the principal roadway at Big Bear Lake. Successfully completed a complete rebuild project (\$1.4 MM) of a major substation to double its capacity and insert state-of-the-art technology including SCADA monitoring and controls.
- Developed strategic 5-year roadmap to convert BVES distribution grid into a smart grid. Initiated implementation of GIS to establish distribution management system (DMS) and designed communications backbone for grid.
- Developed reliability reporting requirements for California IOUs on joint rulemaking working group. Personally drafted proposed General Order for CPUC on reliability indices (SAIDI, SAIFI, MAIFI and CAIDI) recording and reporting.
- Key player in developing 2017 General Rate Case to Public Utilities Commission (PUC) and responsible for assisting in developing 4-year operating and maintenance expense budget, staffing plan, and \$27.8MM capital investment plan.
- Established safety program focused on leading indicators (jobsite inspections, tailboards, equipment checks, and training).
- Renegotiated power plant operating permit to eliminate CEMS requirement realizing over \$130,000/yr. savings.
- Interfaced with media and city officials to promote BVES projects. Established cooperation with school district on science, technology, engineering and mathematics (STEM).

#### Intertek – Asset Integrity Management (AIM)

Houston, TX (4/2012 - 6/2014)

Delivers mechanical integrity services and products including high-end engineering assessments; reliability engineering; risk based inspection and maintenance programs; integrity database management; advanced non-destructive testing and inspection; process safety management; laser scanning; materials laboratory analysis and software products in the power generation and oil & gas sectors.

Director of Operations (1/2013 - 6/2014): Reporting to VP AIM with total P/L responsibility for engineering services (\$17.8MM) and software products (\$6MM). Accountable for all operations including sales and service/product delivery.

- Directed 73 subordinate engineers, technicians, programmers, business development, accounting, and administrative personnel in three major offices and laboratories (Houston, TX, Sunnyvale, CA and Edmonton, AB).
- Developed business development strategy elevating backlog by 22% and sales pipeline by 46%. Increased net margin to 18.1% (6.4% increase) through effective cost controls and improved price points. Made Customer focus top priority using Net Promoter Score to track Customer satisfaction. Established key metrics and indicators to guide business decisions.
- Led all aspects for change management to implement PeopleSoft Financial & HR modules and Customer Relationship Management (MS Dynamics) global system. First in Intertek to use these systems. Gets people onboard with new systems.
- Laser focused on "Getting Right Team in Place." Restructured group into matrix organization optimizing specialist utilization across projects. Cut obsolete services and recruited profitable consulting engineers. Instituted standard processes.
- Negotiated and approved all project contracts in accordance with corporate risk mitigation guidance. Ts&Cs approver.
- Key player on corporate cross functional team for an acquisition of an advanced nondestructive testing firm (\$180MM+).

Senior Project Manager (4/2012 – 12/2012): Reporting to Power Group Director was responsible for 21 Project Managers.

Raised net margin on 140+ projects from 9.4% to 23.2% in 7 months through persistent intrusive leadership and
instituting processes for budgeting, expense tracking and work progress tracking. Implemented ISO 9001 QMS. Drafted
QMS manual. ASME NQA-1/ANSI N45.2 Nuclear Lead Quality Auditor. Established HSE industrial facility training
program.

• Experienced in advance technical methodologies including: HRSG, boiler and high energy piping; ASME B31.1 & 31.3, Tube-Alert<sup>SM</sup>; TubeMod®; Risk Based Inspection; Equipment Life Optimization; Cost of Cycling; COSTCOM®; AWARE<sup>TM</sup>; NDE (automated UT—mechanized angle beam, time of flight diffraction, phased array; pulsed eddy current); integrity mitigation programs (creep, stress, hydrogen induced and flow-accelerated corrosion); and welding and metallurgical testing (fractographic and micro structural evaluation with scanning electron microscope and energy dispersive element analysis). Well versed in code and standard requirements including ASME, API and NACE.

#### **Envirepel Energy, Inc.**

San Diego, California (7/2011 - 4/2012)

Startup company founded to convert waste streams into clean renewable energy (electricity & bio-fuels) without environmental damage.

*VP of Operations* (7/2011 - 4/2012): Reporting to CEO was responsible for all operations including power generation, supply chain; business development; projects; maintenance; compliance; financing, budgeting & forecasting; procurement and HR.

- Managed construction for 0.5MW R&D and 2.8 MW biomass waste-to-energy units. Developed operating & maintenance procedures; process flow & identification drawings; plant instrument & controls; and control software and displays.
- Prepared all project proposals including workbook pro forma linked chemical, heat and material balances detailing all financial and engineering aspects. Delivered investor presentations and prepared stock offering documents.

#### U.S. Navy: Nuclear Submarine Force

#### Various U.S. and Overseas locations (6/1984 - 7/2011)

World's most formidable and advanced fleet of nuclear attack and ballistic missile submarines performing national security missions. Held operational and engineering senior leadership positions of progressively increased responsibility and authority including:

Commanding Officer, Naval Base Point Loma San Diego, CA (7/2008 - 7/2011)

Chief Executive of multi-mission base (\$2.3B PRV) and large matrix organization (800+ military & civilian (union) staff) supporting 115 tenant commands with 22,000 personnel in 2,200 facilities on 1,803 acres including: 7 nuclear submarines; ship maintenance facility and dry-dock; 1M BBL fuel depot; deep-draft port; torpedo/missile armory; R&D complex with 8,000+ scientists & engineers; training schools; security force; barracks; and 3,200 homes. Directed \$104MM/yr. budget.

- #1 of 10 bases in SW Region for Customer Service & Operational Excellence. Above Average 3 yrs. straight on Senior Leadership Customer Survey. Awarded Legion of Merit for excellence and improvements achieved in Command.
- Managed \$506MM modernization and renewable energy projects including construction of 1M BBL fuel depot, R&D facilities, 30MW in new PV systems and deep draft pier restructuring. Responsible for environmental compliance (air, storm-water, waste, noise) for industrial and nuclear activities in California coastal zone. Led public relations gaining Congressional, state and community buy-in on environmental clean-up plan for 5M gallon underground fuel plume.
- Implemented Enterprise Resource Planning (ERP) program (SAP) base-wide integrating with Navy business enterprise.
- Applied LSS reducing utilities by 42% saving \$14MM/yr. Wired smart-grid technology to 2,200 facilities, established usage awareness programs and funded high ROI conservation projects. Earned Secretary of Navy Energy and Water Conservation Award 3 yrs. straight and 2011 Federal Energy and Water Management Award (Department of Energy).
- Led strategic plan to capture stakeholder requirements; assess capability gaps and optimize resource allocation. Improved base support and saved clients \$33MM by merging processes. Changed Navy's plan of record from building new facilities to refurbishing excess buildings for Mine Warfare mission transfer to San Diego saving \$27MM+ and 2 yrs. in construction.

International Programs Group Leader, Office of Secretary of Defense, Washington, DC (8/2006 - 6/2008)
Reported to Deputy Assistant to Secretary of Defense (Nuclear Matters). SME for international nuclear issues to the Secretary of Defense. DoD Program Manager for nuclear weapons and energy international agreements and treaties. Highlevel briefer.

- Developed major policy shift for U.S.-U.K. nuclear weapons program and obtained U.S. President and U.K. Prime Minister approval to enabled collaboration on follow-on Trident missile program and submarine launch design (\$50B+).
- Led technology cooperation on atomic issues with France. Developed robust relationship between Commissariat à l'énergie atomique (CEA) and Department of Energy. Coordinated Cabinet-level engagements with U.K., France and Russia on counter nuclear-terrorism preparing high-level briefs and policy issue papers. Led major exercise to demonstrate procedures.
- Head manager for atomic scientists and engineers at weapons laboratories involved in international programs.

Senior Board Member, Nuclear Propulsion Examining Board, Pacific Fleet, Pearl Harbor, HI (08/2005 - 08/2006)
Reported to Pacific Fleet Commander and Director, Naval Reactors (4-Star Admirals). SME handpicked for **Operational Excellence** in nuclear power. Assigned to audit nuclear submarines and aircraft carriers on safety & regulatory compliance.

- Directed team of 10 top performing senior engineers conducting 75+ nuclear regulatory compliance certifications in the Pacific and managing \$1.1MM+ global travel budget. Personally audited 40+ nuclear submarines and aircraft carriers.
- Developed improved metrics based reports with standardized and streamlined inspection audit processes designed to promote best practice/lessons learned sharing within the fleet and specific feedback & benchmarking on performance.

Commanding Officer, USS OLYMPIA (nuclear powered submarine), Pearl Harbor, HI (08/2002 - 08/2005)
Reporting to Squadron Commodore, led all operations, training, logistics, maintenance and personnel, with ultimate accountability for mission accomplishment, of front-line nuclear attack submarine (\$2B national asset) and crew of 165.

- Led two 6-month deployments to geo-politically sensitive and tactically challenging areas. Selected as #1 of 6 submarines in Squadron for **Operational Excellence** for 2 yrs. Trusted at National Security Council level to apply risk management on independent submarine covert missions with high consequences at stake. Briefed NSA (White House) on mission results.
- Developed highly effective lessons learned program. Became model for Fleet to follow. ZERO mishaps in 3 yrs.
- Managed 5-month dry-dock turnaround work package on schedule. Saved \$20MM of budget by innovatively sequencing some work flow outside shipyard controlled industrial area saving high overhead costs. This practice became new standard for major maintenance. Achieved lowest annual submarine operating cost (by 18%) while meeting all commitments.

Assistant Director for Nuclear-Field Enlisted Matters, Naval Reactors, Washington, DC (09/1999 - 12/2001) SME to Director (4-Star Admiral) on policy and HR Program Manager for 10,000+ (\$1B+ in compensation) nuclear-field personnel including recruiting, training, career path, compensation, promotion and retention.

- Reduced nuclear training attrition by 17% saving \$11MM/yr. by applying metrics on performance traits and statistical analysis of results to develop improved recruiting acceptance standards. Responsible for adjudicating nuclear trained enlisted personnel assignments to instructor duty and selection to officer college scholarships.
- Optimized nuclear training curricula sequence to deliver Sailors to the Fleet 2 weeks sooner saving \$18MM/yr.

Executive Officer, USS HOUSTON (nuclear powered submarine), San Diego, CA (10/1997 - 09/1999)

2<sup>nd</sup> in Command of nuclear submarine (165 personnel). Directed all operations, training and administration. Selected as #1 submarine in San Diego and Top Tactical Performer in Pacific. Recognized for **Operational Excellence**.

Squadron Engineer, Commander, Squadron 22 Staff, La Maddalena, Italy (8/1995 - 09/1997)
Principal Engineer reporting to Squadron Commander responsible for oversight of overseas nuclear ship repair site with 2,000+ personnel and \$66MM/yr. operating budget providing maintenance and logistics support for 18 deployed submarines. Executed 120+ ship turnarounds-outages (2.1MM man-hrs.). Directed repair facility SUBSAFE/Nuclear QMS Program. Managed site infrastructure including sure power generation, water treatment, HAZMAT and waste oil, sewage plant, cranes, and port tugs and support boats.

Chief Engineer, USS PROVIDENCE (nuclear powered submarine), Groton, CT (12/1991 - 8/1995)
Reporting to the Captain, led Engineering Department (72 personnel) responsible for safe operation and maintenance of nuclear reactor and all submarine support systems. Managed major nuclear submarine reactor overhaul project (\$104MM) including production, schedule, radiological controls and quality assurance. Delivered 2 months early & \$18MM under budget. Achieved highest rating for nuclear plant operations. Strong operating experience with nuclear power plant reactor controls instrumentation, chemistry and radiological controls, mechanical systems and power generation and distribution.

Staff Watch Officer, Commander, Submarine Group 8 Staff, Naples, Italy (8/1989 – 12/1991)
Selected as Top Staff Watch Officer during Desert Shield/Desert Storm. Managed global submarine logistics and operations.

Division Officer, USS WILL ROGERS (nuclear ballistic missile submarine), Holy Loch, Scotland (6/1984 – 7/1989) Recognized as Junior Officer of the Year for excellence in submarine operations. Served as Communications Officer, Chemistry & Radiological Controls Assistant, Reactor Controls Assistant, Sonar & Torpedo Officer, and Assistant Engineer. Qualified Engineering Officer of the Watch, Officer of the Deck, Submarine Officer Warfare Officer, and Nuclear Engineer Officer.

#### **Continuing Training:**

Utility Rate Design and the Influence of Emerging Technologies October 2019, Phoenix, AZ

CA Renewable Energy Procurement Summit (panelist)(Infocast) October 2019, Sacramento, CA

Wildfire Technology Innovation Summit (CPUC & CAL FIRE) March 2019, Sacramento, CA

Working with Electric Utility Contracts (PPAs)(EUCI) November 2018, Denver, CO

Rate Design Conference: Rate Design Renaissance (EUCI) October 2018, Minneapolis, MN

Solar Power Plant Design Fundamentals (EUCI) April 2018, Portland, OR

Electric Vehicle-Utility Industry Nexus (EUCI) December 2017, Anaheim, CA

Western Power Summit (Access Intelligence) October 2017, Denver, CO

California Energy Summit (INFOCAST) May 2017, Santa Monica, CA

Storage Summit (INFOCAST) January 2016, San Diego, CA

Advanced Storage Technologies (INFOCAST) January 2016, San Diego, CA

California ISO Symposium (CALISO) 2015, 2016, 2017, & 2018 Sacramento, CA

Utility Rate School (NARUC) May 2015, San Diego, CA

Distribution Management Systems: Strategies for Success (UU206 - DistribuTech) February 2015, San Diego, CA

Planning of Smart Distribution Systems (UU311 - DistribuTech) February 2015, San Diego, CA

 $ASME\ NQA-1/ANSI\ N45.2\ Nuclear\ Lead\ Quality\ Auditor\ Course,\ Atlanta,\ GA\ May\ 2012$ 

Naval Senior Officer Business Course, Naval Post Graduate Scholl, April 2009

Karrass Effective Negotiating 2 The Follow-on Program, March 2009

Karrass Effective Negotiating, 2008

Family Advocate Program & Command Family Advocacy Representative Training, August 2008

Explosives Safety and Environmental Risk Management Course, July 2008

Shore Station Senior Leadership Course, July 2008

National Security Personnel System Course, July 2008

Submarine Prospective Commanding Officer Course, June 2002

Antiterrorism Force Protection Training for Commanding Officers, October 2002

Submarine Prospective Executive Officer Course, December 1997

Senior Leaders Seminar, Department of the Navy June 1996

Submarine Officers' Advanced Course, June 1992

Sealed Authenticator System-Emergency Action Procedures, March 1991

Communications Security Materials Course, October 1986

Intercultural Relations Course, August 1989

Naval Submarine School, February 1986

Naval Nuclear Power School, March 1985

<u>Qualifications:</u> Major Navy Command; Nuclear Propulsion Submarine Command; Chief Engineer for Nuclear Propulsion Plants; Submarine Warfare Officer; Officer of the Deck; Engineering Officer of the Watch; ASME NQA-1/ANSI N45.2 Nuclear Lead Quality Auditor.

Security Clearance: Held Top Secret – Sensitive Compartmented Information (SCI) & Special Access Program (SAP).

#### **Community Service:**

- Elected President of Bear Valley Mountain Mutual Aid Association (organization dedicated to bringing together over 25 community government and non-government organizations to provide coordinated disaster & emergency response).
- Elected President of the Board for Viking Estates Home Owners Association in Big Bear Lake.
- Food Pantry organizer in Big Bear Lake raising increasing record levels in contributions each year for 4 years.

#### **APPENDIX B**

## SAFETY-RELATED EDUCATION AND EXPERIENCE OF EACH SAFETY COMMITTEE MEMBER

#### Safety-Related Education and Experience of Committee Members.

#### Paul Marconi, Safety & Operations Committee Chairman:

Mr. Marconi's relevant safety experience includes 38 years of experience of operational leadership in power generation, distribution, petrochemical, nuclear power generation, and other industrial environments. He has held executive leadership roles in these areas, including being entirely responsible and accountable for all aspects of environment, health, and safety.

Bear Valley Electric Service, Inc. (subsidiary of American States Water Company) Big Bear Lake, CA (6/2014 – Present) Mr. Marconi over sees all aspects of the Company's environment, health and safety program, and leads the development and implementation of Bear Valley's Wildfire Mitigation Plan, which has safety as its top priority. Mr. Marconi's oversight of Bear Valley's safety programs as resulted in an outstanding record of no employee fatalities, no employee contact with high voltage, and no ignitions during his tenure. In addition to implementing wildfire mitigation plans and being responsible for public and worker safety with respect to the plan, Mr. Marconi oversees Bear Valley's power plant safety program, its Hazmat programs, and all of the Company's Cal/OSHA safety programs. Mr. Marconi implemented a three-year program to improve Bear Valley's safety culture and he personally works closely with an expert environment, health, and safety consultant execute the safety culture improvement program.

Intertek – Asset Integrity Management (AIM) Houston, TX (4/2012 – 6/2014) As Director of Operations, Mr. Marconi oversaw piping integrity programs at major refineries and power generation plants throughout the world to ensure safe operations of these facilities. Specifically, Mr. Marconi implemented and oversaw wall thickness inspection programs at refineries, which is critical to preventing catastrophic piping failures that could lead to major fire and explosions. Additionally, Mr. Marconi implemented and oversaw critical weld joint inspection programs at power plants essential to preventing catastrophic high pressure steam leaks.

Mr. Marconi completed a 27 year career in submarines and the Naval Nuclear Propulsion Program holding numerous leadership positions directly responsible for the safety operation of naval nuclear propulsion plants. Specific safety related experience includes:

- Naval Base Point Loma San Diego, CA (7/2008 7/2011) Mr. Marconi was the Commanding Officer and was responsible for the safe operations and maintenance of 7 nuclear submarines, 1 million barrel fuel depot, 30 MW in PV systems, all aspects of base Hazmat operations, and a major explosive ordinance facility. These activities involved inherently dangerous materials and catastrophic risks not only to Navy personnel, but also to the general public at large.
- U.S. Pacific Fleet, Pearl Harbor, HI (08/2005 08/2006) Mr. Marconi was the Senior Board Member, Nuclear Propulsion Examining Board, and he directed a team of 10 top performing senior engineers conducting 75+ nuclear regulatory safety compliance certifications in the Pacific. He personally oversaw, inspected and audited 40+ nuclear submarines and aircraft carriers to certify their ability to safely operate their nuclear propulsion plants.
- USS OLYMPIA (nuclear powered submarine), Pearl Harbor, HI (08/2002 08/2005) Mr. Marconi was the Commanding Officer responsible for all aspects of safe submarine operations and nuclear safety. He oversaw the implementation of operational risk

- management to reduce shipboard accidents and incidents. Mr. Marconi implemented processes and procedures to plan, brief, and train his crew for high risk training events and he establish metrics to monitor with tripwires to abort the event or take remedial action as appropriate to avoid unsafe conditions from developing.
- Commander Squadron 22 Staff, La Maddalena, Italy (8/1995 09/1997) Mr. Marconi
  was Principal Engineer reporting to Squadron Commander responsible for oversight of
  overseas nuclear ship repair site with providing maintenance and logistics support for 18
  deployed submarines. Directed repair facility SUBSAFE/Nuclear QMS Program. Managed
  site infrastructure including shore power generation, water treatment, HAZMAT and waste
  oil, sewage plant, cranes, and port tugs and support boats.
- USS PROVIDENCE (nuclear powered submarine), Groton, CT (12/1991 8/1995) Mr. Marconi was the Chief Engineer responsible for safe operation and maintenance of nuclear reactor and all submarine support systems. Mr. Marconi was responsible for ensuring reactor operators were properly trained and qualified to operate the reactor plant safely. He also was responsible for approving all procedures used in the reactor plant to ensure they we safe to execute.
- Mr. Marconi achieved the following specific qualifications and certifications: Major Navy Command; Nuclear Propulsion Submarine Command; Chief Engineer for Nuclear Propulsion Plants; Submarine Warfare Officer; Officer of the Deck; Engineering Officer of the Watch; ASME NQA-1/ANSI N45.2 Nuclear Lead Quality Auditor. All of these qualifications and certifications include a heavy emphasis on reactor safety and/or safe deep submergence operations, which are inherently dangerous.

Harry Scarborough, Safety & Operations Committee Member: Mr. Scarborough's relevant safety experience includes 25 plus years of experience in the Electric Utility and Power Generation sectors and 40 plus years of operational leadership experience in technical and industrial environments. He has held several executive leadership roles in in these areas entirely responsible and accountable for all aspects of environment, health, and safety. Some of Mr. Scarborough's specific safety related experience, includes:

Northwest Lineman College- A Division of Quanta Energy Services - Ada County, Idaho : As Chief of Staff (2022 to Present) Chief Education Officer/VP of Campus Operations (2019 – Present) and Campus President (2016 – 2019), Mr. Scarborough ensures programs and processes are in place to ensure high risk linemen training is conducted safely and that linemen students graduate the Northwest Lineman College with a deep understanding of employing proper safety procedures. Mr. Scarborough, as an employee of Quanta, is in the people business and Quanta Employees know that people are fallible. We always do our best to prevent incidents, but Quanta realizes that mistakes will happen. When mistakes happen, the question becomes "Do we have the capacity to absorb failure, WITHOUT CAUSING HARM? To be ready we will plan and execute work assuming that failure will happen at any moment. We learn from each job, each mistake, and each success to continue to getting better. Safety is not the mere absence of injuries, it is the presence of capacity. Safety is not just a policy – safety is the core of who we are and at the forefront of our focus. Mr. Scarborough was instrumental in developing the curriculum of the "Capacity Model" that recognizes traditional safety practices have greatly reduced the number of workplace injuries during the last several decades, but life-ending events have declined at a slower rate. To further reduce serious and life-ending events, Quanta Services developed The Capacity Model<sup>TM</sup> and is changing the way the industry approaches safety. At the core of this model is a human performance philosophy which embraces the fact that error is normal and people will make mistakes. That acknowledgement, coupled with an increased understanding of how people interact with their work environments, enables Quanta to more effectively identify hazards and put in place targeted protections (controls).

Bear Valley Electric Service Big Bear Lake, CA (2010-2016) Mr. Scarborough was the Director responsible for all aspects of employee, contractor and public safety in electrical distribution and power generation.

Enron Wind/GE Wind Corporation (1998 – 2001) As Director of Operations, Maintenance, and Construction/Commissioning, Mr. Scarborough oversaw all aspects of renewable power generation project environment, health and safety programs.

GE Power systems/Stewart and Stevenson (1996 – 1998) As the International Regional Manager, Mr. Scarborough provided oversight for environment, health and safety for each of the power generation projects for which he was responsible.

**Stewart and Stevenson Operations, Inc.** (1995 – 1996) As Plant Manager, Mr. Scarborough was responsible for ensuring the safe operation of the power generation systems under his responsibility.

**LFC Power Systems** (1993 – 1995) Mr. Scarborough was the Plant Manager responsible for ensuring the safe operation of the power generation systems under his responsibility.

John K. Hawks, Safety & Operations Committee Member: Throughout Mr. Hawks' 48 years of utility experience, he has had extensive leadership roles with particular responsibilities in developing and implementing polices for employee, contractor and public safety. Mr. Hawks' executive experience is extensive with natural gas, electric and water utilities, and it has provided him a broad perspective toward public safety. Some of Mr. Hawks' specific safety-related experience, includes:

California Water Association (2005 – 2020) As Executive Director, Mr. Hawks was responsible for developing water utility public safety policies in California. Specifically, as it relates to utility safety policies, standards and practices, Mr. Hawks led the Association's efforts in revising the California Public Utilities Commission's General Order 103, which sets forth the Commission's rules governing water and sewer service and the minimum standards for design, construction, and the safe operation of the water and sewer systems. It applies to all water and wastewater utilities operating under the jurisdiction of the Commission. In particular, Mr. Hawks participated in and/or led all of the working groups that updated and rewrote the sections of the general order related to: Water Supply Requirements and Quantity of Water; Standards of Design and Construction; Fire Protection Standards; Water Quality, Testing of Water; Measurement of Service; Operation and Maintenance; Rates and Billing; and Customer Relations Performance Standards.

**Electric Power Supply Association** (2003 – 2005) As Vice President, Public Affairs & Planning, Mr. Hawks developed and implemented electric power plant public safety policies through regulatory and legislative programs.

**PG&E National Energy Group (1991 – 2003)** Serving in various senior leadership roles (Vice President Regulatory Affairs and Market Policy, Vice President, Government Relations, and Director, Public Affairs), Mr. Hawks was deeply involved in developing and implementing the company's policies directly advancing public safety in the safe operation of the company's 18 power plants throughout the United States.

**American Gas Association** (1975 – 1991) Serving in various Manager and Director leadership roles, Mr. Hawks promoted utility gas public safety policies and programs.

#### **APPENDIX C**

#### SAFETY COMMITTEE'S ROLE IN

#### OVERALL CORPORATE GOVERNANCE

The Safety Committee of the BVES Board of Directors ("Board") is responsible for overseeing (i) the preparation of BVES's wildfire mitigation plan and the assessment of BVES's compliance with the plan, (ii) other activities intended to identify wildfire risks and other safety risks related to the operation and maintenance of the BVES electric utility system, (iii) steps taken to reduce such risks and to respond to safety events, and (iv) such other matters as set forth in its charter or delegated to the Safety Committee from time to time by the Board. The Safety Committee reviews, approves, modifies, and assesses the effectiveness of, and seeks to improve, BVES' safety culture and its safety programs, policies and practices related to the operation and maintenance of its electric utility system, and considers actions to prevent, mitigate or respond to wildfires and other BVES risks related to the operation and maintenance of its electric utility system. Management updates the Safety Committee thoroughly on these issues at least quarterly and acts upon the recommendations of the Safety Committee. The Safety Committee reports regularly to the Board on deliberations, recommendations and actions taken by the Safety Committee. The oversight role of the Safety Committee with respect to such BVES safetyrelated matters does not alter management's safety-related authority, responsibility or accountability. The Safety Committee's powers and responsibilities are delegated by the Board as set forth in the Safety and Operations Committee's Charter. Currently, three BVES Board of Directors serve on the Committee.

#### APPENDIX D

#### REPORT ON SIGNIFICANT TOPICS COVERED BY

#### SAFETY COMMITTEE SINCE ISSUANCE OF

#### LAST SAFETY CERTIFCIATION

The Safety Committee meetings of the BVES Board of Directors include thoughtful and comprehensive discussion of safety issues and topics affecting the Company, including ongoing public safety and wildfire mitigation efforts. At each meeting, the Committee receives an update on the Company's safety performance metrics to date. These meetings are summarized and reported to Energy Safety and the Commission in BVES's Quarterly Notification Letters documenting the ongoing implementation of BVES's Wildfire Mitigation Plan pursuant to Public Utilities Code Section 8389(e)(7).

The 2023 Safety Certification Guidance further requires BVES to provide a description of significant topics covered by the Safety Committee since the issuance of the last Safety Certification. Since BVES's last safety certification was requested, the Safety Committee has considered the following topics of significance:

- On November 10, 2022, the Committee heard presentations and conducted discussions on the
  following topics of significance: current safety items at BVES including Wildfire Mitigation
  Plan (WMP) compliance, COVID-19 impacts and the plan to fully re-open offices, safety
  metrics and performance, and Safety Culture Assessment, fire season preparations, and the
  status of 2022 WMP initiatives and targets.
- On February 23, 2023, the Committee heard presentations and conducted discussions on the following topics of significance: current safety items at BVES including compliance with OEIS requirements and guidelines, safety certification, safety metrics and performance, and implementation of the 2021 Safety Culture Assessment recommendations, the final results of 2022 WMP initiatives and targets, the risk reduction achieved by the 2022 WMP initiatives, risk of wildfire ignition and PSPS risk, and how management had developed the initiatives and targets to be included in 2023-2025 WMP to reduce these risks.
- On June 8, 2023, the Committee heard presentations and conducted discussions on the following topics of significance: current safety items at BVES including WMP compliance

and safety certification, safety metrics and performance, 2022 Safety Culture Assessment results and recommendations, the status of 2023-2025 WMP initiatives and targets achieved in 2023 Q1, explanations for the targets that were off track and management's plan to get back on track, and an update on risk modeling used by BVES to evaluate the need for PSPS on a daily (or more frequent basis).

• On August 17, 2023, the Committee heard presentations and conducted discussions on current safety items at BVES including WMP compliance and safety certification, safety metrics and performance, Safety Culture Assessment, the status of 2023-2025 WMP initiatives and targets achieved in 2023 Q1, explanations for the targets that were off track and management's plan to get back on track, the results of the most recent Wildfire Awareness Survey and trends from past surveys, revisions to Bear Valley's Public Safety Power Shut-offs Decision Process, and Fast Trip Settings.

#### **APPENDIX E**

#### **DESCRIPTION OF SAFETY COMMITEE**

#### RECOMMENDATIONS AND IMPLEMENTATION

The Safety Committee meetings of the BVES Board of Directors include recommendations for BVES. The following are some of the recommendations of the Safety Committee of significance and their implementation:

- On November 10, 2022, the Safety Committee recommended approval of the 2023
   Capital Investment budget to support WMP grid hardening projects scheduled for 2023.
   This recommendation was approved by the Board of Directors and BVES continued to execute its grid hardening projects to further reduce the risk of wildfire and PSPS events.
- On February 23, 2023, the Safety Committee reviewed and discussed BVES
  management's proposed 2023-2025 WMP initiatives and targets, agreed with
  management's proposals, and recommended BVES adopt the initiatives and targets. This
  recommendation will result in BVES significantly reducing the risk of wildfire and PSPS
  events over the 2023-2025 period.
- On June 8, 2023, the Safety Committee reviewed the recommendations of the 2022
  Safety Culture Assessment (SCA) and BVES management's proposed course of action to
  implement the recommendations. The Safety Committee recommended that BVES
  implement the recommendations and that some of the proposed actions be accelerated.
  This recommendation further increases the opportunity for Bear Valley's safety culture to
  continue to improve.
- On August 17, 2023, the Safety Committee recommended approval of an increase to the 2023 Capital Investment budget to support WMP grid hardening projects scheduled for 2023. This recommendation was approved by the Board of Directors and BVES continued to execute its grid hardening projects to further reduce the risk of wildfire and PSPS events. The Safety Committee also recommended authorization of 2024 Capital Investment budget to support WMP grid hardening initiatives scheduled for 2024 so that BVES management could order long-lead equipment and material to support the initiatives.

#### **APPENDIX F**

#### **DETAILS OF JULY 6, 2023 PUBLIC MEETING**

#### **AND**

#### RELATED PRESENTATION MATERIALS

On July 6, 2023, the Commission and OEIS hosted a public meeting on utility safety practices during which BVES's President and Safety Committee Chairman, Mr. Paul Marconi, made a presentation on safety practices and answered questions from the Commission and OEIS. Mr. Marconi highlighted the following areas regarding public safety:

- Safety Governance Model
- Safety Committee Topics and Recommendations
- Safety Performance
- WMP Implementation Progress
- 2021 and 2022 SCA Recommendations Progress
- New, Lower-cost Technologies

Set forth below are related presentation materials for the public hearing.









# Safety and Operations Committee Board Level Brief to CPUC and OEIS

Paul Marconi, President, Treasurer, Secretary, & Safety Committee Chairman July 6, 2023

## **Outline**



- System Overview
- Safety Governance Model
- Safety Committee Topics & Recommendations
- Safety Performance
- WMP Implementation Progress
- 2021 & 2022 SCA Recommendations Progress
- New, Lower-cost Technologies







## **Service Area Overview**

**Location:** 32 square miles of rural and mountainous terrain at approximately 7,000 ft. in San Bernardino Mountains (80 miles East of Los Angeles).

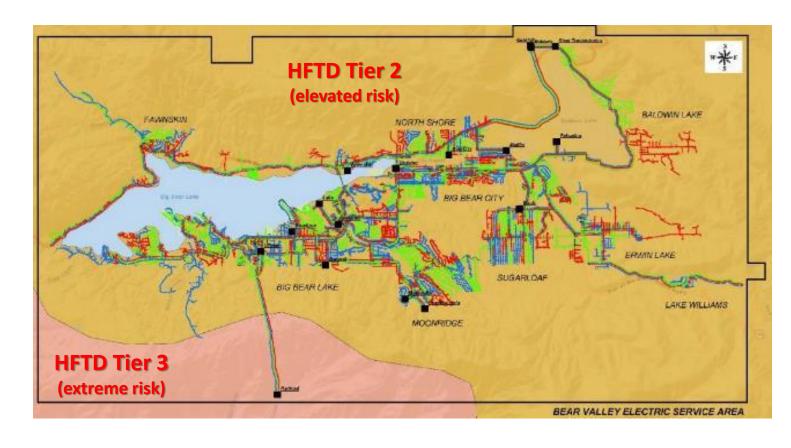
• Entire Service Area is > 3,000 ft. elevation requiring more resilient construction standards.

Key jurisdictions: County of San Bernardino, City of Big Bear Lake, U.S. Forest Service, CALTRANS

Customers: 24,739 total [23,238 residential and 1,501 commercial].

#### **Electrical System:**

- Transmission BVES does not own or operate any transmission systems (66 kV or greater).
- Sub-transmission (34.5 kV)
  - 13.2 circuit miles bare overhead conductor
  - 15.8 circuit miles covered overhead conductor
  - 0.9 circuit miles underground
- Distribution (4 kV)
  - 153.1 circuit miles bare overhead conductor
  - 28.4 circuit miles covered overhead conductor
  - 53.2 circuit miles underground
- Substations: 13
- Supply Lines: 39 MW total
- Bear Valley Power Plant: 8.4 MW
- 551 NEM + DGS customers
- Load is winter & evening peaking
  - Historical peak: 46 MW (2021)
  - Load delivered: 142,421 MWh (2022)
  - 39% qualified to Renewable Portfolio Standards



# Safety Governance Model





# Safety Committee Topics & Recommendations



### **Last 12 Months Topics & Recommendations Include:**

- Approved adjustments to 2022 WMP capital expenditures.
- Approved 2023-2025 WMP initiatives and targets.
- Approved 2023 WMP capital expenditures and WMP O&M initiatives expenses.
- Approved Management's recommendation to implement 2022 Safety Culture Assessment recommendations.
- Briefed in detail each quarter on WMP initiatives, targets and progress, and challenges.
- Briefed in detail each quarter on safety performance.
- Briefed in detail each quarter on risk modeling improvements performed at the utility.

#### 12 Months Prior Outcomes Include:

- BVES achieved 2021 and 2022 WMP Update initiative targets.
- Significantly improved risk modeling capabilities.
- Strong public safety record in 2022.
- Significant progress in grid hardening, situational awareness, inspection, vegetation management and emergency response preparedness (includes PSPS).

# **Safety Performance**

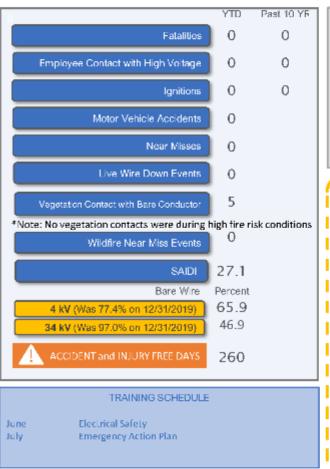


# As of June 26, 2023, BVES's Safety Record:

- Zero ignitions in over 20 years.
- Zero public injuries or fatalities due to BVES facilities or operations in over 20 years.
- 286 days accident/injury free (1 reportable injury in last 4 years).
- Zero employee fatalities in over 20 years.
- Zero employee contact with High Voltage in over 10 years.



#### MONTHLY DASHBOARD



SAFETY ISSUES

# EVENTS TRACKING Past 10 YR Past 10 YR TD Ignitions Employee Contact with High Voltage Fatalities 0 1 2 3 4 5 6 7 8 9 10

#### SAFETY MESSAGE

#### Near Miss Reporting

All near miss incidents (and minor incidents) are to be reported, recorded, and investigated. Sharing this information allows opportunities to answer what happened and determine how to prevent reoccurrences.

#### Importance of Tracking Near Misses: Near Misses are a valuable source of

Near Misses are a valuable source of information

Near Misses are symptoms of undiscovered safety concerns Reporting can help identify negative trends and safeguard employees

#### Identifying Near Misses:

- Unsafe behaviors and/or conditions
- Minor incidents that could have been more serious
- Events where injury, property and/or environmental damage could have occurred

#### Reporting a Near Miss:

- If a near miss is witnessed, notify your supervisor or Human Resources
- Reporting will NOT result in disciplinary action
- Root cause(s) will be analyzed will be used to improve safety systems, hazard controls, risk reduction, and employee education

MAY 2023

# WMP Implementation Progress What have we accomplished:



Covered Conductors	miles (34.8% is either covered or underground).
Expulsion Fuses	<ul> <li>Replaced all expulsion fuses (a total of 3,114) with 2,578 current limiting fuses and 536 electronic fuses. There are not expulsion fuses in system.</li> </ul>
Pole Loading & Assessment	• Assessed 3,698 poles and replaced or remediated 1,448 poles.
Evacuation route Hardening	<ul> <li>All primary evacuation routes have been hardened. To date installed 1,763 wire mesh wrap on wood poles, replaced 172 wood poles with LWS poles and replaced 66 wood poles with fire resistant composite poles.</li> </ul>
Tree Attachment Removal	• Removed 720 tree attachments. 487 tree attachments remain in system and programs for removal.

Advanced Inspection	• Established routing of conducting annual LiDAR, UAV Photography & Videography, UAV Thermography, and 3rd Party Independent Patrols of entire system. These are in addition to GO-165 Detailed & Patrol Inspections. Conducting 850 intrusive wood pole inspections per year.
	• Installed 10 Intelligenter Switches on sub-transmission system loop to establish a Fault Localization Isolation and Service Restoration (FLISR)

• Installed 10 IntelliRupter Switches on sub-transmission system loop to establish a Fault Localization Isolation and Service Restoration (FLISR) self-healing system.

Sub-transmission (34 kV): Installed 14.6 circuit miles (55.9% is either covered or underground) and distribution (4 kV): Installed 27.1 circuit

• Installed fiber optic network throughout service area (mimics sub-transmission system) and fully automated three substations.

Completed technical and safety updates to the Pineknot Substation and the Palomino Substation.

 Developed full field effect wildfire probability and consequence maps for 2021 & 20250 (REAX Engineering) and implemented Technosylva's Wildfire Analyst Enterprise (WFA-E) and Wildfire Risk Reduction Model (WRRM).

• Implemented increased radial clearances on all power lines and "blue-sky" requirement on sub-transmission lines. Removed 667 hazard trees.

• Installed 20 weather stations providing continuous complete and overlapping weather monitoring and weather data recording in a historian with outputs available to BVES staff, BVES's weather consultant, Technosylva's WFA-E models, and to open-source forecasting (NOAA).

• Installed 15 Cameras in 7 locations in the ALERTWildfire High Definition Camera system providing complete and overlapping coverage of the entire BVES service area and surrounding boundary areas.

Substation Upgrades

**Grid Automation** 

**FLISR** 

Risk Modeling Capability

**Enhanced Vegetation Management** 

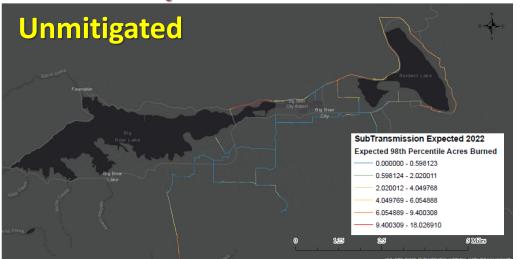
Weather Stations

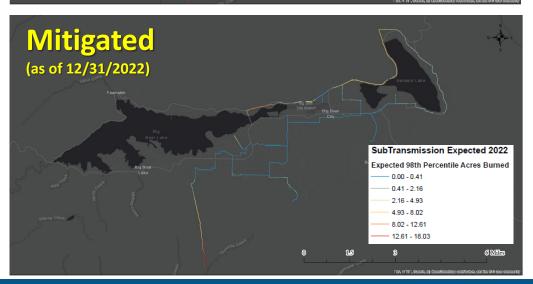
**ALERTWildfire Cameras** 

WMP Initiatives are making a measurable difference:



### **WRRM Analysis**





### **Fire Safety Model Analysis**

System Risk Units
115,969
110,745
90,386
81,829
44,891*
31,535*
9892*

<sup>\*</sup>Projected risk score base on planned initiatives.

Vegetation density in right of ways has been significantly reduced (as measured by LiDAR):

2020: 25.44% 2022: 20.17%



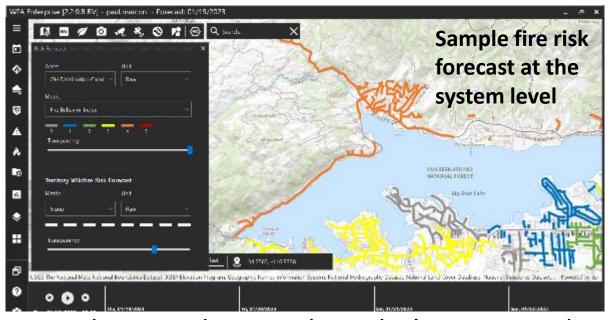
# WMP Initiatives are increasing capability:

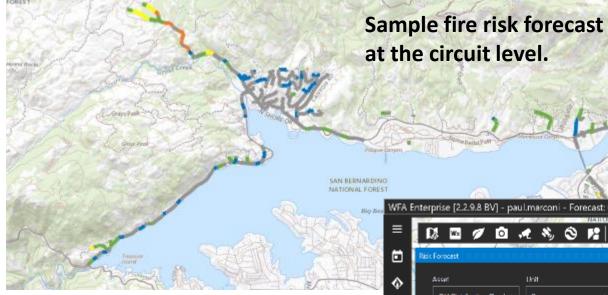


Hame Length

selection

**Fire risk metric** 





- BVES began utilizing Technosylva's WFA-E application in 2022 greatly enhancing its near real time forecasting and modeling capabilities with respect to wildfire risk.
  - o Real time weather and wildfire risk data is processed to provide a risk forecast.
  - BVES staff can now perform fire spread predictions based on the fire risk forecast.
- The fire model is expected to reach a confidence level of 60%.
  - Validation is usually done using satellite products and/or known fire perimeters where the uncertainty is known to be within a range.
- Technosylva is developing a BVES specific Fire Potential Index (FPI.

What grid hardening is planned 2023-2025 WMP:



#### **Covered Conductors**

Replaces 4.3 circuit miles of 34 kV bare wire & 8.6 circuit miles of 4 kV bare wire with covered conductors each year.

# Capacitor Bank Upgrade Project

Replaces 6 capacitor banks with automated capacitor banks connected to SCADA each year (4-year project).

# Partial Safety & Technical Upgrades Village Substation

Replaces overhead type regulators with pad mounted regulators, installs IntilliRupter Switches, & converts substation to all pad mounted dead front equipment.

#### Radford Line Replacement Project

Replaces 2.8 circuit miles of bare wire sub-transmission line & 95 wood poles, with high-performance covered conductor and ductile iron poles in HFTD Tier3 area.

# Switch and Field Device Automation

Connects and automates 28 34 kV and 20 4 kV switches to SCADA network over 4 years.

#### **Energy Storage Project**

Installs a 5 MW/20 MWh (four-hour) Lithium-Ion NMC utility-grade battery at BVES.

# Tree Attachment Removal Project

Removes 100 tree attachments each year.

# Partial Safety & Technical Upgrades Maltby Substation

Replaces overhead type regulators with pad mounted regulators, installs IntilliRupter Switches, & converts substation to all pad mounted dead front equipment.

# Bear Valley Solar Energy Project

Constructs 5 MW AC/6.1 MW DC single-axis tracker solar generation facility connected to BVES's sub-transmission system.

# **Evacuation Route Hardening Project**

Hardens 500 poles each year along road ways leading to evacuation routes.

# Safety & Technical Upgrades to Lake Substation

Converts substation to all pad mounted dead front equipment – complete equipment upgrade.

# Fuse TripSaver Automation

Connects and automates 160 fuse TripSavers to SCADA network over 4 years.

#### **Substation Automation**

Automates 3 substations per year (3-year project).

#### **Online Diagnostic System**

Installs system on at least one circuit each year.

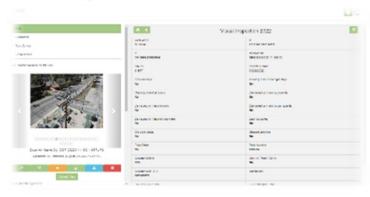
#### **Install Fault Indicators**

Connects 134 fault indicators into SCADA.

What inspections/quality controls are planned 2023-2025 WMP:



- Patrol Inspections
- Detailed Inspections
- Intrusive Pole Inspections
- UAV Thermography
- UAV HD Photography/Videography
- LiDAR Inspection
- 3rd Party Ground Patrol
- Substation inspections
- Asset management, vegetation management, and inspection enterprise system(s)
- Asset quality assurance/quality control
- Vegetation management quality assurance/quality control







# 2021 SCA Recommendations



#### Recommendation

Embed leadership skills development into the "Engaged Management" 12month objective to improve the safety culture.

In collaboration with vegetation management contractor, develop and implement an action plan to address safety culture issues.

#### **Actions**

Provided training & coaching to managers and frontline supervisors on how to achieve safety culture improvements through open communications, listening, taking action on employee's concerns, setting the "high standards" example, and constantly emphasizing the important role their employees have in public safety.

Leadership engages in open dialog with employee representatives at monthly management-employee safety committee meetings.

Safety performance is the top line on all manager and supervisor appraisals. Performance metric goals have been set.

Discussed issue with the vegetation contractor's CEO, Operations Manager, and Safety Group.

Worked closely with vegetation contractor to implement a specific plan was in place to improve information flow among contractor employees and between contractor employees and supervisors about wildfire hazards.

Vegetation Contractor conducted training with crews and then examined the effectiveness of the training through an internal safety culture survey, which showed significantly improved results.

BVES meets with the vegetation contractor's field crews on a weekly basis to discuss safety issues, pass on safety and wildfire mitigation lessons learn, and improve situational awareness of operations and the environment (e.g., discuss high fire threat weather).

# 2022 SCA Recommendations



#### Recommendation

Refine strategic improvement plan to address gaps in contractor safety culture. Improve contractor relationships & empower contractors to address problems. Builds upon a 2021 SCA recommendation.



Refining strategic improvement plan to address gaps in overall safety culture for contractors.

Working with contractors to understand why they have lowered their opinion about safety culture and implement specific measures to address their concerns.

Implementing formal contractor safety program that includes improvements to onboard, train, and otherwise engage contractors in its strategic plan.

BVES will engage BVES supervisors to listen to, support, and empower contractors.

Implement plan to address survey result indicating Design & Construction employees have a less positive experience of safety culture in wildfire mitigation work context than other employees.



Senior management & supervisors will work with Design & Construction employees to address their concerns; especially in the areas of the lower performing survey statements.

Supervisors will reinforce the elements that promote improved safety culture and safety related communications.

# 2022 SCA Recommendations



#### Recommendation

Strengthen safety-enabling systems by improving protocols for responding to near misses & hazards.
Build upon the "Continuous Improvement Program" to improve employee understanding of the importance of submitting near-miss reports.

Implement use of specific leading indicators to improve safety & health outcomes in connection with its 12-month goal to establish, collect, and publish a set of safety metrics, including leading indicators, to evaluate safety.

#### **Actions**

Senior management led companywide training on "near miss" and "hazard" reporting.

Senior management to encourage "near miss" and "hazard" reporting by directly engaging supervisors & rewarding employees that make meaningful "near miss".

Document & track number of safety event reports submitted by employees on a monthly basis.

Management will include an assessment of the quality of these reports, any trends identified, and actions taken to improve safety based on the reports.

BVES will track the following leading indicators: safety training completion rate, # of pre-job briefs, # of JHAs performed, # of VM QCs performed, # of WMP work QCs performed, # of near misses, and # of contractor/BVES meetings on safety items.

Leading indicators are discussed at monthly employee-management safety committee meetings.

Leading indicators will be included in monthly safety dashboard email to employees.

Supervisors discuss leading indicators with employees.

Supervisors discuss leading indicators with contractors.

# New, Lower-cost Technologies



### **Online Diagnostic System**

- Project installs continuous monitor sensors to provide usable grid insight information that is measured, reported, and documented.
  - Analytics enable the ability to identify and correct current and future irregularities before a problem arises.
  - Designed to pinpoint irregularities, which may be due to degrading/imminent hardware failures, as well as identify objects such as vegetation contacting the lines.
  - Enables BVES to rapidly inspect potential problems before they develop into an ignition source.
- This initiative intends to help mitigate the potential for fire exposure of highrisk circuits not poised to be replaced with covered conductors in the immediate future, due to the current program schedule or other constraints.

#### Status:

- Contractor installed 15 sensors on 4 kV and 34 kV lines and 4 communication gateways in select locations optimized for data backhaul.
- Contractor is grooming monitoring equipment.
- Next step is staff training and system implementation.





# Fire Season Ahead







### **Goldmine Fire**

- Vegetation fire reported at about 1:30 p.m. on June 29, 2023.
- Response was rapid and crews were mopping up the fire scene just before 4 p.m.
- Cause under investigation.
- Perhaps the beginning of an active fire season.









# Questions

#### **APPENDIX G**

# BEAR VALLEY'S QUARTERLY NOTIFICATION LETTERS SINCE LAST SAFETY CERTIFICATION REQUEST



November 1, 2022

Via E-Mail

Bear Valley Electric Service, Inc. ("BVES or Bear Valley") hereby transmits for filing the following:

<u>SUBJECT:</u> Q3 2022 BVES Quarterly Notification to the Office Of Energy Infrastructure Safety Regarding BVES's Implementation of its Wildfire Mitigation Plan Pursuant to Public Utilities Code Section 8389(e)(7)

Pursuant to Public Utilities Code ("PUC") Section 8389(e)(7), and the February 16, 2021 Office of Energy Infrastructure Safety ("Energy Safety") Compliance Operational Protocols, Bear Valley submits to Energy Safety this notification detailing the implementation of its approved Wildfire Mitigation Plan ("WMP"), implementation of BVES's most recent safety culture assessment and the recommendations of the most recent safety culture assessment, and a statement of activities and recommendations of the BVES Safety and Operations Committee meetings that occurred during the quarter.

#### **PURPOSE**

The purpose of this notification is to comply with the requirements of Section 8389(e)(7), which were added to the Public Utilities Code by Assembly Bill (AB) 1054 on July 12, 2019, and subsequently amended by AB 148 on July 22, 2021, to reflect the transition of the Wildfire Safety Division at the California Public Utilities Commission ("CPUC") to the Office of Energy Infrastructure Safety (OEIS). Section 8389(e)(7) requires electrical corporations to file a notice of implementation of its wildfire mitigation plan with OEIS "on a quarterly basis that details the implementation of both its approved wildfire mitigation plan and recommendations of the most recent safety culture assessment, and a statement of recommendations of the board of directors safety committee meetings that occurred during the quarter." Section 8389(e)(7) also requires that the notification "summarize the implementation of safety committee recommendations from the electrical corporation's previous notification and submission." BVES is simultaneously submitting this notice to the CPUC as an information only submittal.

This notification reports BVES's 2022 third quarter ("Q3") WMP activities, recorded Safety Committee meetings, and recommendations of the most recent safety culture assessment.

This Quarterly Notification Letter ("QNL") notification is BVES's third quarterly filing for calendar year 2022 and is simultaneously submitted to the CPUC's Safety Policy Division and its Program and Project Supervisor as an information-only submittal.

#### IMPLEMENTATION OF BVES'S WILDFIRE MITIGATION PLAN

To support sustained implementation and improvement of the WMP, BVES continues to track progress through metrics on applicable initiatives in 10 categories for mitigating wildfire in addition to the quarterly data, which conform to OEIS standards. BVES's quarterly initiative summary presentation includes information submitted to the OEIS under the Quarterly Initiative Update ("QIU") and the Quarterly Data Report ("QDR") filings for Q3 2022.

In Attachment A, BVES provides an initiative summary of progress for individual mitigation measures during Q3 2022.

#### **Overview of Significant Achievements and Issues**

BVES made significant progress in achieving its WMP initiative targets to date for 2022.

As of the end of Q3 2022, some of the more significant achievements were:

- Completed the 2022 target to harden 412 poles along the main evacuation routes to the Big Bear Lake area in February 2022. The target was achieved by installing fire resistant wire mesh on the 412 poles. This completes BVES's effort to have all of its evacuation routes hardened by 2022. BVES front loaded this effort to ensure it was completed prior to the fire season.
- Replaced 10.4 circuit miles of 34.5 kV sub-transmission and 4 KV distribution bare wire with covered conductors, which was more than the Q3 2022 target of 8.6 circuit miles.
- Automated a second substation achieving the annual target of automating two substations.
- Assessed 294 poles for safety factor, which is ahead of the Q3 2022 target of 150.
   Also, 179 poles were replaced or remediated by the end of Q3 2022, which is ahead of the Q3 target of 100.
- By the end of Q3, 853 poles had been inspected intrusively which exceeds the annual target of 850.
- The Tree Attachment Removal Program was originally planned to be started and completed in Q4 2022. However, the program was initiated early and by the end of Q3 2022, 51 tree attachments are removed, which reflects significant progress toward the annual goal of 80.
- Cleared vegetation to enhance clearance specifications along 74.5 circuit miles, which exceeded the 54-circuit mile target established for the end of Q3. Additionally, the vegetation management crews removed 116 hazard trees with strike potential, which is ahead of the Q3 2022 target of 66.
- Completed LiDAR surveys, Aerial Thermography and HD Imagery inspections, and 3<sup>rd</sup> Party Independent Ground Patrol so that any fire hazard discrepancies will be addressed before the fire season.
- Community engagement on PSPS and WMP was at 462 engagements by the end of Q3 2022 which exceeds the target of 270 engagements. Additionally, the stakeholder and community briefs were conducted on the PSPS process.

Bear Valley did not meet or exceed its targets in the following initiatives:

- Patrol Inspections of Distribution Electric Lines and Equipment
- Patrol Inspections of Vegetation Around Distribution Electric Lines and Equipment
- Covered Conductor Installation Radford Line Replacement Project.

The Bear Valley Field Inspector performed 158.16 circuit miles in Patrol Inspections of Distribution Electric Lines and Equipment and Patrol Inspections of Vegetation around Distribution Electric Lines and Equipment which is short of the target of 211 circuit miles by the end of Q3 2022. As of the date of this notification letter, the target of 211 was achieved. The Field Inspector delayed the final patrols because he is also heavily involved in working with the software developers for Bear Valley's inspection application and database. This work will ultimately enhance the utility of the inspection application and database. It should be noted, however, that BVES's contractor completed a patrol inspection of 100 percent of Bear Valley's overhead facilities. Additionally, Bear Valley completed 100 percent LiDAR and aerial photography/videography and thermography inspections of its overhead facilities.

Construction work on the Radford Line Replacement Project, which replaces bare wire with covered conductor and wood poles with fire resistant poles in the High Fire Threat District Tier 3, is delayed until April/May 2023 (previously BVES planned to start construction no later than June 2022). The delay is due to the United States Forest Service ("USFS") not approving BVES's permit to construct in time to start and complete construction before the winter weather season in 2022. BVES is working closely with the USFS and has made significant progress in satisfying USFS permitting requirements. BVES believes it is on track to obtain the permit according to the following timeline of major permitting milestones:

- BVES's environmental contractor responds to USFS additional questions (6 total) regarding the BVES permit request. **Step completed.**
- Receive approval from USFS to conduct cultural survey. **Step completed.**
- BVES BVES's environmental contractor conducts cultural survey and submits report for NEPA-CE and CEQA categorical exemption to USFS. Survey completed and anticipate report submittal on November 4, 2022.
- USFS reviews the cultural survey, NEPA-CE and CEQA documents, and submits permit package to State Historic Preservation Officer (SHPO). Anticipate week of December 12, 2022.
- SHPO reviews permit package and enters it into the record. **Anticipate week of January 16, 2023.**
- USFS public notice period completed. **Anticipate week of February 13, 2023.**
- USFS issues permit approval. Anticipate week of March 6, 2023.

Based on this timeline, BVES anticipates commencing the project in April/May 2023 depending on snowpack and complete the project by October 2023.

In the interim, BVES will continue to de-energize the Radford Line when load requirements do not require its operation, generally from the end of March through November of each year. Prior to energizing the Radford Line, BVES will patrol the line. Additionally, when the line is energized, the recloser for that circuit will be placed in manual (no automatic reclosing).

# IMPLEMENTATION OF BVES'S MOST RECENT SAFETY CULTURE ASSESSMENT

BVES completed its safety culture assessment in accordance with Resolution WSD-011. BVES staff conducted safety culture assessment surveys during the period of May 12, 2021 to May 26, 2021.

On October 27, 2021, OEIS issued the Safety Culture Assessment ("SCA") report to BVES. BVES accepted the report on October 28, 2021 by letter to OEIS. BVES initiated action to implement the recommendations of the report. The recommendations and status of implementing them are as follows:

1. <u>Recommendation</u>: Embed leadership skills development into the "Engaged Management" 12-month objective to improve the Bear Valley safety culture.

#### Action to Implement:

- The President personally provided training and coaching to managers and frontline supervisors on how to achieve safety culture improvements through open communications, listening, taking action on employee's concerns, setting the "high standards" example, and constantly emphasizing the important role their employees have in public safety. This training was conducted in December 2021.
- EHS Consultant provided professional training to leadership on performing effective JHAs and monitoring employee and contractor safety performance. Other training areas covered:
  - Skills to enhance leadership's ability to effect positive safety improvements.
  - Importance of addressing safety planning and objectives at BVES's Weekly Management Meeting.
  - o This training was conducted in March 2022.
- Leadership engages in open dialog with employee representatives at monthly management-employee safety committee meetings. This was implemented at the January management-employee safety committee and is ongoing.
- Each Supervisor conducts weekly meetings with his/her Team where they:
  - Emphasize the role each employee has in public safety.
  - Discuss the importance of listen to each other as well as other stakeholders in wildfire mitigation work.
  - Express their openness to receive suggestions on how to improve public safety.

- Ensure employees know that reporting problems and/or their mistakes is critical to public safety.
- Emphasize that work must only be done with the proper tools. If tools are not available or damaged, the work must stop and the situation must be resolved before starting work again. The President emphasized that if production is lost or schedules missed, so be it.
- This effort was implemented in January 2022 and is ongoing.
- Safety performance is the top line on all manager and supervisor appraisals. Performance metric goals have been set. This was implemented on appraisals for 2021 performance and is ongoing.
- EHS contractor has been tasked to check on the effectiveness of these effort with respect to employees' perceptions of leadership toward safety results are pending. This will be completed in November 2022.
- 2. <u>Recommendation</u>: In collaboration with its vegetation management contractor, BVES develops and implements an action plan to address safety culture issues, in particular regarding the flow of information about wildfire hazard mitigation. In addition, BVES has been working closely with its vegetation management contractor to ensure that the action plan to address safety culture issues is successfully implemented.

#### Action to Implement:

- The issue was discussed with the vegetation contractor's CEO, Operations Manager, and Safety Group by BVES President. This action was completed in November 2021.
- BVES worked closely with its vegetation contractor Safety Group to address
  the issues identified and to ensure a specific plan was in place to improve
  information flow among contractor employees and between contractor
  employees and supervisors about wildfire hazards. The plan included steps
  to increase compliance with procedures to control workplace and wildfire
  hazards. BVES and its vegetation contractor developed the plan jointly. This
  action was completed in March 2022.
- Vegetation Contractor conducted training with crews and then examined the
  effectiveness of the training through an internal safety culture survey, which
  showed significantly improved results. This action was completed in March
  2022.
- BVES meets with the vegetation contractor's field crews on a weekly basis to
  discuss safety issues, pass on safety and wildfire mitigation lessons learned,
  and improve situational awareness of operations and the environment (e.g.,
  discuss high fire threat weather). This action was implemented in November
  2021 and is ongoing.

In August 2022, BVES employees and contractors involved in WMP work completed the 2022 SCA surveys and BVES submitted the documents requested by Energy Safety's SCA Team for the 2022 SCA.

#### SAFETY AND OPERATIONS COMMITTEE MEETING

On August 12, 2022, BVES's Safety and Operations Committee ("Committee") convened. Chairman Paul Marconi briefed the Committee on current safety items at Bear Valley including an update on COVID-19 mitigation measures and the plan to reopen offices, safety performance, Public Safety Power Shut-off (PSPS) planning, Independent Evaluator Report on compliance with the 2020 Wildfire Mitigation Plan (WMP), and the status of 2021 WMP initiatives. Chairman Marconi discussed WMP initiative accomplishments relative to targets adopted in the 2021 WMP. Mr. Marconi pointed out initiatives that were "Off Track" and the actions being taken to get them back on target. He also noted that based on an internal wildfire risk model, the risk of utility-caused wildfires had been reduced by approximately 14 percent since January 1, 2020. Chairman Marconi then provided the preliminary results of a new wildfire ignition risk model being developed by an expert consultant specific to the Corporation's service territory and electric facilities. The results depicted the consequence of ignitions along the Bear Valley's electric facilities with respect to wildfire size and structure damage. The results also illustrated the predicted consequence of ignitions along the electric facilities for 2050 demonstrating the adverse impact of climate change. The Committee discussed the briefed items, asked questions, which Mr. Marconi addressed, and, based on the information briefed, the Committee did not see the need to alter the initiatives or provide additional direction to management.

Chairman Marconi then discussed the completed Fuse Upgrade Project and that the final budget needed to be increased to match the final expenditures. Mr. Marconi referred the Committee to a draft resolution recommending that the Board approve additional capital expenditures to close out the WMP Fuse Upgrade Project. Mr. Hawks proposed a modification to the resolution. The Committee discussed the modified resolution, and approved the modified resolution.

There being no further business to come before the Committee, the meeting adjourned.

#### **NOTICE**

This filing will be submitted to the Office of Energy Infrastructure Safety, the Executive Director of the California Public Utilities Commission, and posted to the BVES website at https://www.bvesinc.com/safety/wildfire-mitigation-plan.

Sincerely,

/s/ Nguyen Quan

Nguyen Quan

Manager, Regulatory Affairs Bear Valley Electric Service, Inc. 630 East Foothill Blvd. San Dimas, California 91773 Email: Regulatory Affairs@bvesinc.com

(909) 394-3600 ext. 664

#### Attachment A

Initiative Summary of Progress for Individual Mitigation Measures during Q3 2022  $\,$ 



# Wildfire Mitigation Plan Quarterly Notification Letter Initiatives Update

Bear Valley Electric Service, Inc.

## WMP Activity Summary

Not Started Completed/Ongoing Ahead of Plan On Track Off Track Not Currently Scheduled\*

#### 7.3.4 - Asset Management & Inspections

Detailed inspections of distribution electric lines and equipment 7.3,4.1

Detailed inspections of transmission electric lines and equipment 7.3.4.2 Improvement of Inspections 7.3.4.3

Infrared inspections of distribution electric lines and equipment 7.3.4.4

Infrared inspections of transmission electric lines and equipment 7.3.4.5

Pole Inspections 7.3.4.6 LiDAR inspections of distribution electric lines and equipment 7.3.4.7

LiDAR inspections of transmission electric lines and equipment 7.3.4.8

Other discretionary inspection of distribution electric lines and equipment, beyond inspections mandated by rules and regulations 7.3.4.9

Other discretionary inspection of transmission electric lines and 7.3.4.10

Patrol inspections of distribution electric lines and equipment 7.3.4.11

Patrol inspections of transmission electric lines and equipment 7.3.4.12 Pole loading assessment program to determine safety factor 7.3.4.13

Quality assurance / quality control of inspections 7.3.4.14

Substation inspections 7.3.4.15

#### 7.3.6 - Grid Operations & Protocols

Automatic Recloser Operations 7.3.6.1

Protocols for PSPS Re-Energization 7.3.6.5 Protective
Equipment and
Device Settings
7.3.6.2

**PSPS Events** 

and Mitigation

of PSPS Impacts

7.3.6.6

Crew-Accompanying Ignition
Prevention and Suppression
Resources and Services
7.3.6.3

Personnel Work Procedures and Training in Conditions of Elevated Fire Risk 7.3.6.4

Stationed and On-Call Ignition Prevention and Suppression Resources and Services 7.3.6.7

### 7.3.1 - Risk Assessment & Mapping

A Summarized Risk
Map That Shows the
Overall Ignition
Probability and
Estimated Wildfire
Consequence Along
the Electric Lines and
Equipment

7.3.1.1

Climate-Driven Risk Map and Modeling Based on Various Relevant Weather Scenarios 7.3.1.2

Initiative Mapping and Estimation of Wildfire and PSPS Risk-Reduction Impact 7.3.1.4

Ignition Probability Mapping Showing the Probability of Ignition Along the Electric Lines and Equipment 7.3.1.3

Match Drop Simulations Showing the Potential Wildfire Consequence of Ignitions that Occurs Along the Electric Lines and Equipment 7.3.1.5

#### 7.3.7 - Data Governance

Centralized Repository for Data 7.3.7.1 Collaborative Research on Utility Ignition and/or Wildfire 7.3.7.2

Documentation and Disclosure of Wildfire-Related Data and Algorithms 7.3.7.3

Tracking and Analysis of Near Miss Data 7.3.7.4

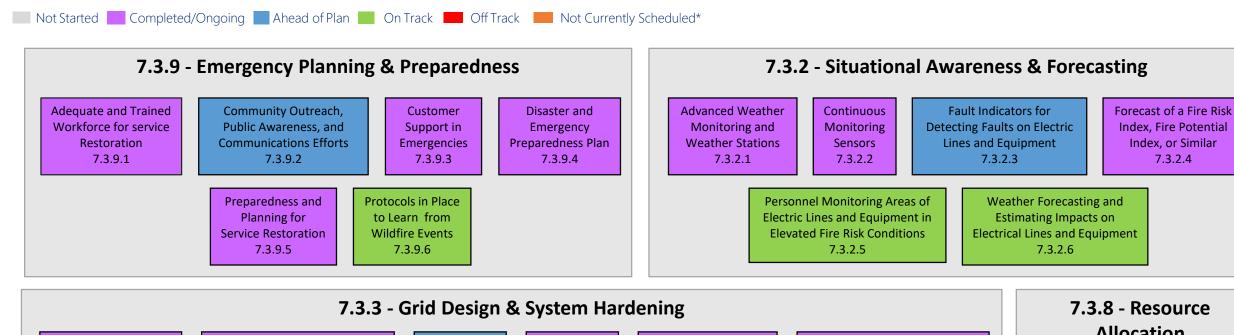
#### 7.3.10 - Stakeholder Cooperation & Community Outreach

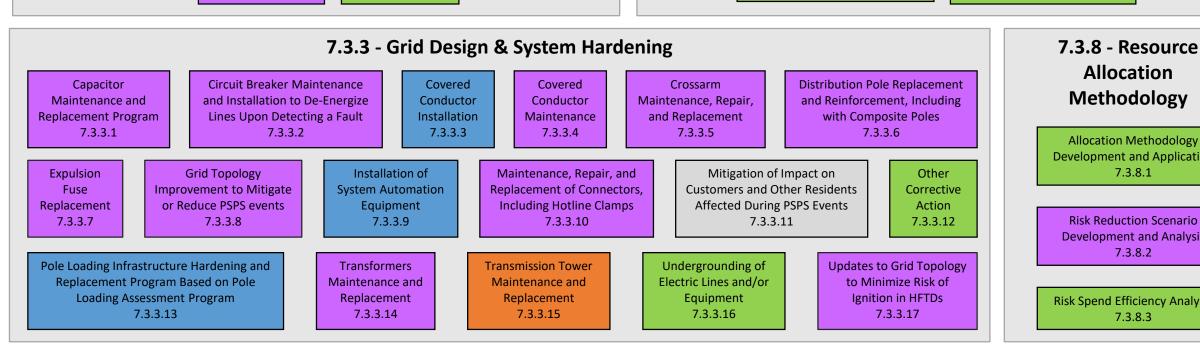
Community Engagement 7.3.10.1 Cooperation and best practice sharing with agencies outside CA 7.3.10.2

Cooperation with suppression agencies 7.3.10.3

Forest service and fuel reduction cooperation and joint roadmap 7.3.10.4

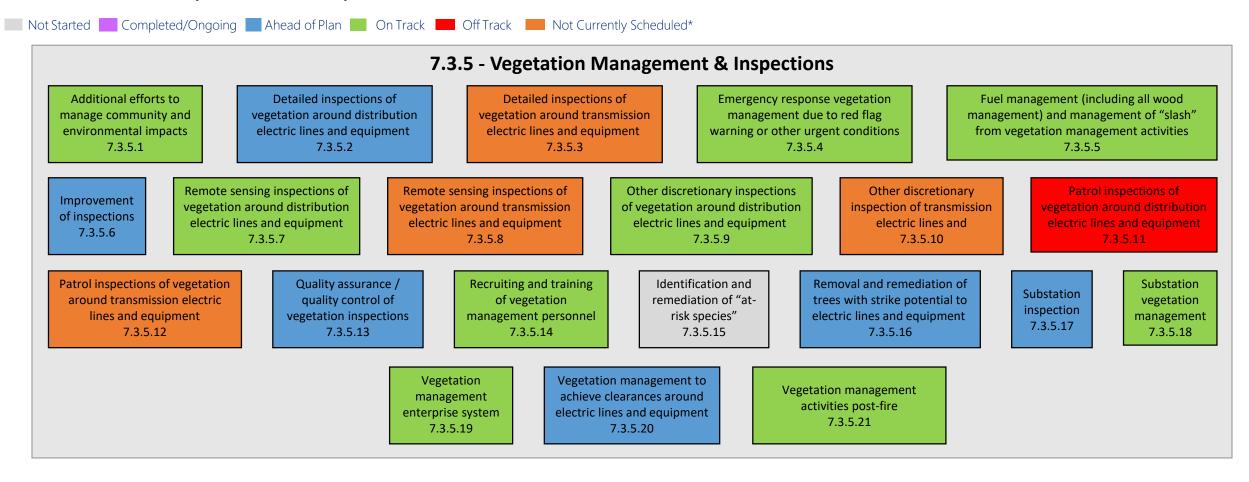
## WMP Activity Summary





7.3.2.4

# WMP Activity Summary



### 7.3.1 - Risk Assessment & Mapping

A Summarized Risk Map That Shows the Overall Ignition Probability and Estimated Wildfire Consequence Along the Electric Lines and Equipment 7.3.1.1

Ignition Probability & Wildfire Consequence Mapping Project

**Completed** 

Ignition Probability Mapping Showing the Probability of Ignition Along the Electric Lines and Equipment 7.3.1.3

Ignition Probability & Wildfire Consequence Mapping Project Completed

Climate-Driven Risk Map and
Modeling Based on Various Relevant
Weather Scenarios
7.3.1.2
Ignition Probability & Wildfire
Consequence Mapping Project

Completed

Initiative Mapping and Estimation of Wildfire and PSPS Risk-Reduction Impact 7.3.1.4

Ignition Probability & Wildfire

Consequence Mapping Project

On Track

Match Drop Simulations Showing the Potential Wildfire Consequence of Ignitions that Occurs Along the Electric Lines and Equipment 7.3.1.5

Ignition Probability & Wildfire Consequence Mapping Project

Completed

#### **Contracting with Risk Mapping Resource:**

**2022 Goal:** During 2021 in conjunction with the contracted resource BVES completed its initial Risk Mapping. Due to a lack of historical data the PSPS risk reduction aspect was deferred. For 2022 BVES plans to evaluate the best course of action to add this tool to its Risk Assessment & Mapping program.

Key Actions: BVES continues to evaluate the best course of action to add PSPS Risk Reduction mapping to its Risk Assessment & Mapping program.

#### 7.3.7 - Data Governance

Centralized Repository for Data 7.3.7.1

GIS Data Collection & Sharing

On Track

#### **GIS Data Collection & Sharing Improvements:**

BVES continues to work towards a class leading Data Repository. **Key Actions:** BVES continue to work with its contracted experts to update its GIS database as well as develop a more streamlined method for reporting and sharing of information.

Tracking and Analysis of Near Miss Data 7.3.7.4

WMP Metrics Tracking
Ongoing

#### **WMP Metrics Tracking:**

BVES has an established program in place and continues to monitor all aspects of the program for compliance. During the period Q2 of 2022 there were no compliance issues identified.

**Key Actions:** BVES recorded necessary metrics for inclusion in quarterly reporting.

Documentation and disclosure of wildfire-related data and algorithms 7.3.7.3

GIS-Based Apps // Data Sharing Activities

On Track

#### **GIS-Based Applications & Data Sharing Activities:**

**Key Actions:** BVES is an active participant in Energy Safety's Risk Model Working Group and will continue to exchange information and lessons learned from the participants to improve its ability to utilize probabilistic risk models and mapping.

Not Started Completed/Ongoing Ahead of Plan On Track Off Track Not Currently Scheduled

### 7.3.2 - Situational Awareness & Forecasting

Advanced Weather Monitoring and **Weather Stations** 7.3.2.1 Situational Awareness Hardware Program

Completed

Revised Schedule for 2021 Planned Deployment & **Additional Installation:** 

Volume vs 2022 Goal: BVES does not have any planned weather stations for 2022.

**Key Actions:** BVES continues to evaluate the needed for future weathers stations in its operating territory.

Potential Index, or Similar Weather Consultant / Risk

Mapping Completed

Forecast of a Fire Risk Index, Fire

7.3.2.4

**Contracting with Risk Mapping Resource:** 

**Volume vs 2022 Goal:** During 2021 in conjunction with the contracted resource BVES completed its initial Risk Mapping.

Key Actions: BVES continues to evaluate the need for future improvements to the designed system.

**Continuous Monitoring Sensors** 7.3.2.2 Program

Situational Awareness Hardware

Completed

**Situational Awareness Hardware Program:** 

Volume vs 2022 Goal: BVES does not have any planned HD Cameras for 2022.

**Key Actions:** BVES continues to evaluate the needed for future HD Cameras in its operating territory.

Personnel Monitoring Areas of Electric Lines and Equipment in **Elevated Fire Risk Conditions** 7.3.2.5

**Grid Operations & Protocols** No High-Risk Events Occurred

**Grid Operations & Protocol:** 

Volume vs 2022 Goal: BVES has established a resource allocation level for the instance where a high fire risk condition occurs.

**Key Actions:** BVES currently has the resource pool available to combat high fire risk conditions in its operating area.

**Fault Indicators for Detecting Faults** on Electric Lines and Equipment 7.3.2.3

**Situational Awareness Hardware Program** 

On Track

**Situational Awareness Hardware Program:** 

Volume vs Q3 2022 Goal: BVES began this program in Q3 with a target of 20 fault indicator installations in Q3 and 50 in 2022. BVES was able to complete 75 installations in Q3, surpassing the 2022 goal.

Key Actions: BVES completed and surpassed the 2022 goal of 50 fault indicator installations.

Weather Forecasting and **Estimating Impacts on Electrical** Lines and Equipment 7.3.2.6

**Weather Consultant Support Requirement** Met

**Weather Consultant for Weekly Reporting:** 

2022 Goal: BVES currently has a weather consultant on payroll who supports the weather forecasting and analysis necessary.

**Key Actions:** Additional task for quarterly aggregation of High Wind Warning and Red Flag Warning accounts to support Quarterly Data Reports.

### 7.3.3 - Grid Design & System Hardening

**Covered Conductor** Installation 7.3.3.3.1 **Covered Conductor Replacement Program** 

**Ahead of Plan** 

**Covered Conductor** 7.3.3.3.2 **Covered Conductor Replacement Program -**

Radford

Delayed

Distribution Pole Replacement and Reinforcement, Including with Composite Poles 7.3.3.6.1 **Distribution Pole** Replacement and

Reinforcement - GO 95

**Projects** 

**Distribution Pole Replacement** and Reinforcement, Including with Composite Poles 7.3.3.6.4

**Evacuation Route Hardening Ahead of Plan** 

#### **Covered Conductor Replacement Program:**

Volume vs Q3 2022 Goal: BVES planned to complete a total of 8.6 circuit miles by the end of Q3. BVES was able to complete total of 10.35 by Q3. The target for 2022 is 12.9 circuit miles. **Key Actions:** BVES was able to complete 3.33 circuit miles of covered conductor instillation. This puts this initiative ahead of schedule.

#### **Covered Conductor Replacement Program - Radford:**

Volume vs 2022 Goal: BVES has had to adjust its target for 2022 to 0 circuit miles.

**Key Actions:** Due to not being able to obtain permits from the U.S. Forest Service BVES will not be able to start work on this project until 2023.

**Distribution Pole Replacement and Reinforcement - GO 95 Projects:** 

Volume vs 2022 Goal: There are no current targets for this initiative in 2022.

**Key Actions:** Initiative targets will be evaluated for future calendar years.

**Distribution Pole Replacement** and Reinforcement, Including with Composite Poles 7.3.3.6.2

**Covered Conductor Project – Radford Line** 

Other Corrective Action 7.3.3.12.1

**Tree Attachment Removal Program** 

Other Corrective Action

7.3.3.12.2

**Evacuation Route** 

Hardening

**Ahead of Plan** 

Undergrounding of

electrical lines and/or

equipment

7.3.3.16

**Ongoing Routine** 

**Undergrounding** 

**Projects** 

**Evacuation Route Hardening:** 

**Volume vs 2022 Goal:** BVES planned to harden 412 poles in 2022 as part of its Evacuation Route Hardening Program. 412 wood poles were hardened in Q1 with a wire mesh protective coating. BVES hardened an additional 171 poles in Q3.

Key Actions: BVES was able to meet its 2022 Goal of 412 poles hardened in Q1 of 2022. BVES has now hardened 583 poles in 2022.

**Completion Toward 80 Attachment Removals for the Year:** 

2022, totaling 51 out of 80 planned for 2022.

Volume vs Q3 2022 Goal: BVES removed 49 tree attachments in Q3 of

Key Actions: BVES plans to remove 80 tree attachments in 2022. BVES

will remove tree attachments in association with other work as well.

**Covered Conductor Project -Radford Line:** 

Volume vs 2022 Goal: There are no current targets for this initiative in 2022.

**Key Actions:** Initiative targets will be evaluated for future calendar years.

**Distribution Pole Replacement** and Reinforcement, Including with Composite Poles 7.3.3.6.3

**Evacuation Route Hardening-**Pilot

**2020 Completed Route Hardening Pilot:** 

Volume vs 2022 Goal: The BVES does not have an established goal for this pilot as it was completed in 2020.

#### **Evacuation Route Hardening:**

2022 as part of its Evacuation Route Hardening Program. 412 wood poles were hardened in Q1 with a wire mesh protective coating. BVES hardened an additional 171 poles in Q3.

**Ongoing Routine Undergrounding Projects:** 

**Volume vs Goal:** BVES will continue to reassess the need for potential undergrounding projects and will continue to exchange information with other utilities on the advantages and disadvantages of UG and covered conductors through working groups. BVES will watch carefully for any advances in UG installation, especially those that reduce the price point while maintaining GO 128 minimum specifications.

Volume vs 2022 Goal: BVES planned to harden 412 poles in

**Key Actions:** BVES was able to meet its 2022 Goal of 412 poles hardened in Q1 of 2022. BVES has now hardened 583 poles in 2022.

Not Started Completed/Ongoing Ahead of Plan On Track Off Track

### 7.3.3 - Grid Design & System Hardening

Expulsive Fuse Replacement 7.3.3.7

Fuse Replacement Program

O Remaining

Mitigation of Impact on Customers and Other Residents Affected During PSPS Events 7.3.3.11.1

Energy Storage Project
Planned

Installation of System Automation Equipment 7.3.3.9.1

**Grid Automation Program** 

Installation of System
Automation Equipment
7.3.3.9.2

Grid Automation Program //

**FLISR** 

Installation of System
Automation Equipment
7.3.3.9.3

Grid Automation Program //
Fuse Trip Saver

#### **0 Conventional Fuses Remaining:**

**Volume vs 2022 Goal:** There are no current targets for this initiative in 2022.

**Key Actions:** This initiative was completed in 2021.

### 5 MW/ 20 MWh Energy Storage Facility Planned in 2023:

**2022 Goal:** Seek siting location and work on associated agreements.

**Key Actions:** BVES is still in the process of siting the storage device.

#### **Grid Automation:**

**Volume vs Q3 2022 Goal:** BVES planned to connect 1 substations to SCADA in Q3 of 2022. BVES was able to connect one substation to SCADA in Q3.

**Key Actions:** BVES has connected 2 substations to SCADA as of O3.

#### **Grid Automation FLISR Project:**

**Volume vs 2022 Goal:** Complete the project deliverables which includes software/system instillation.

**Key Actions:** This project/program will be completed in 2022.

#### **Grid Automation Fuse Trip Saver Project:**

**Volume vs 2022 Goal:** There are no activities planned for this initiative in 2022.

**Key Actions:** This project/program will begin in 2023.

Grid Topology Improvement to Mitigate or Reduce PSPS events 7.3.3.8

Grid Topology Improvements

Completed

Mitigation of Impact on Customers and Other Residents Affected During PSPS Events 7.3.3.11.2

BVPP Phase 4 Upgrade Project
Planned

#### **Grid Topology Improvements - Completed:**

**Volume vs Goal:** BVES will install sectionalizing devices as the need is determined. Currently, there are sufficient sectionalizing devices in the system; zero are planned in 2022.

**Key Actions:** No actions were taken for this initiative in Q3 of 2022.

#### **BVPP Phase 4 Upgrade Project Planned in 2023:**

**2022 Goal:** There are no activities planned for this initiative in 2022.

**Key Actions:** This project/program will begin in 2023.

Updates to Grid Topology to Minimize Risk of Ignition in HFTDs 7.3.3.17

Grid Topology Improvements

Completed

#### **Grid Topology Improvements - Completed:**

**Volume vs Goal:** BVES will install sectionalizing devices as the need is determined. Currently, zero are planned in 2022. **Key Actions:** No actions were taken for this initiative in Q3 of 2022.

Pole Loading Infrastructure
Hardening and Replacement
Program Based on Pole Loading
Assessment Program
7.3.3.13

Pole Loading & Replacement Program

**108 Poles Assessed** 

#### **Pole Assessment Program:**

**Volume vs Q2 2022 Goal:** The goal for Q3 was to replace 60 poles as part of the pole loading & assessment process. BVES was able to replace 108 poles in Q3.

**Key Actions:** BVES has currently replaced 179 of its targeted 165 poles for 2022. BVES exceeded its goal of 30 poles replaced by assessing 108 poles in Q3 2022.

### 7.3.3 - Grid Design & System Hardening

Capacitor Maintenance and Replacement Program 7.3.3.1

**Complete / Ongoing** 

Crossarm Maintenance, Repair, and Replacement 7.3.3.5

**Complete / Ongoing** 

Circuit Breaker Maintenance and Installation to De-Energize Lines Upon Detecting a Fault 7.3.3.2

**Complete / Ongoing** 

Maintenance, Repair, and Replacement of Connectors, Including Hotline Clamps 7.3.3.10

**Complete / Ongoing** 

Covered Conductor Maintenance 7.3.3.4

**Complete / Ongoing** 

Transformers Maintenance and Replacement 7.3.3.14

**Complete / Ongoing** 

#### **BVES Maintenance Best Practice:**

The following Grid Design and System Hardening initiatives are covered under ongoing maintenance of sub-transmission and distribution facilities and are not separated as unique WMP initiatives.

### 7.3.10 - Stakeholder Cooperation & Community Outreach

Community engagement

7.3.10.1

Community Outreach
Program

**Exceeded Targets** 

**Community Outreach Program:** 

**Volume vs Q3 2022 Goal:** BVES had planned to conducted at minimum 90 outreach activities. BVES recorded 176 outreach activities 195% of target for Q3.

**Key Actions:** Grizzly Newspaper advertisements are posted during the week (M-F) for either WMP or PSPS and BVES will have 1 advertisement broadcasted each month.

Cooperation and best practice sharing with agencies outside CA

7.3.10.2 **On Track** 

Cooperation and sharing with agencies outside CA:

**Volume vs 2022 Goal:** Currently BVES has attended two utility conferences in 2022 that include wildfire mitigation best practices.

**Key Actions:** BVES will participate in another utility conference in Q4 2022 and develop a plan for 2023.

Cooperation with suppression agencies 7.3.10.3

**Coordination On Track** 

**Cooperation with suppression agencies:** 

**Volume vs 2022 Goal:** BVES has cooperative discussions with local suppression agencies. BVES plans to have further discussion with suppression agencies and determine if there are additional actions that can be taken to improve their program. **Key Actions:** BVES established plans to engage in coordination efforts based on PSPS activations, which will include suppression agencies.

Forest service and fuel reduction cooperation and joint roadmap 7.3.10.4

On Track

**Cooperation with forest service and fuel reduction:** 

Volume vs 2022 Goal: Currently BVES has some cooperative discussions in forest service and fuel reduction cooperation and joint roadmap programs. BVES plans to have discussions with their forest service contacts to determine the applicability of these programs to improve their overall program.

Key Actions: BVES plans to engage U.S. Forest Service in this

**Key Actions:** BVES plans to engage U.S. Forest Service in this area.

Not Started Completed/Ongoing Ahead of Plan On Track Off Track

### 7.3.4 - Asset Management & Inspection

Detailed inspections of distribution electric lines and equipment 7.3.4.1

Detailed Inspection Program
Ahead of Schedule

Infrared inspections of distribution electric lines and equipment 7.3.4.4

UAV Thermography Program
On Track

Intrusive Pole Inspections
7.3.4.6
Intrusive Pole Inspection Program
Ahead of Schedule

LiDAR inspections of distribution electric lines and equipment 7.3.4.7

LiDAR Inspection Program
On Track

**Detailed Inspection Activities** 

**Volume vs Q3 2022 Goal:** BVES set a target of 11 circuit miles by end of Q3. BVES plans to conduct 29 circuit miles of inspection in 2022.

**Key Actions:** BVES was able to complete 29.58 circuit miles of inspection in Q2.

**UAV Inspection Activities** 

**Volume vs Q3 2022 Goal:** BVES set a target of 211 circuit miles by end of Q3 of 2022.

**Key Actions:** BVES completed 211 circuit miles in Q3, fulfilling the goal of conducting infrared inspections of the entire system annually.

**Intrusive Pole Inspections** 

**Volume vs Q3 2022 Goal:** 300 intrusive pole inspections were scheduled for Q3 of 2022. BVES plans to assess 850 poles in 2022. **Key Actions:** BVES was able to complete 235 intrusive pole inspections in Q3, totaling 853 so far in 2022, ahead of the goal for Q3 and the 2022 year.

**LiDAR Inspection Activities** 

**Volume vs Q3 2022 Goal:** 211 circuit miles were scheduled for Q3 of 2022.

**Key Actions:** BVES completed 211 circuit miles in Q3, fulfilling the goal of conducting infrared inspections of the entire system annually.

Other discretionary inspection of distribution electric lines and equipment, beyond inspections mandated by rules and regulations
7.3.4.9.1

Third Party Ground Patrol
On Track

Contracted Third Party Inspection

**Volume vs Q3 2022 Goal:** 211 circuit miles were scheduled for Q3 of 2022.

**Key Actions:** BVES completed 211 circuit miles in Q3, fulfilling the goal of conducting 3<sup>rd</sup> party ground patrol inspections of the entire system annually.

Other discretionary inspection of distribution electric lines and equipment, beyond inspections mandated by rules and regulations
7.3.4.9.2

UAV HD Photography/Video
Program
On Track

**UAV HD Photography/Video Program** 

**Volume vs Q3 2022 Goal:** 211 circuit miles were scheduled for Q3 of 2022.

**Key Actions:** BVES completed 211 circuit miles in Q3, fulfilling the goal of conducting infrared inspections of the entire system annually.

Improvement of Inspections 7.3.4.3

**Ongoing Effort** 

**Improvement of Inspections:** 

**Key Actions:** BVES is always trying to optimize its inspections and is open to changes/adaptations leading to a better process. BVES is working on upgrading inspection documentation tool for use in the field.

### 7.3.4 - Asset Management & Inspection

Patrol inspections of distribution electric lines and equipment 7.3.4.11

Patrol Inspection Program
Off Track

#### **Patrol Inspection within the Service Area**

**Volume vs Q3 2022 Goal:** BVES targeted 211 circuit miles inspected by Q3 2022. BVES was able to conduct 158.16 circuit miles of inspection by the end of Q3 2022. As of the date of this report, the target of 211 circuit miles was achieved.

Key Actions: BVES plans to inspect 211 circuit miles in 2022.

Pole loading assessment program to determine safety factor 7.3.4.13

Pole Loading & Replacement
Program
Ahead of Plan

#### **Pole Loading & Replacement**

**Volume vs Q3 2022 Goal:** BVES targeted 150 pole assessments by Q3 2022. BVES was able to conduct 146 pole assessments in Q3 2022. BVES has conducted 294 pole assessments as of Q3.

**Key Actions:** BVES plans to conduct 225 pole assessments in 2022.

Quality assurance / quality control of inspections 7.3.4.14

Quality Control of Inspections
Planned

#### **Quality Control for Electrical Inspections Program**

**Volume vs Goal:** BVES has not yet established quantitative or qualitative targets for the planned quality control program and therefore, have no quarterly units to report in the Quarterly Advice Letter.

**Key Actions:** Currently on track to discuss framework for formal controls development for internal and third-party inspection patrols.

Substation inspections
7.3.4.15
GO-174 Substation Inspection
Program

Ahead of Plan

#### **Substations Inspected**

**Volume vs Q3 2022 Goal:** BVES targeted 36 substation inspections in Q3 2022. BVES was able to complete 39 substation inspections in Q3 2022. BVES has conducted 117 substation inspections as of Q3.

Key Actions: BVES plans to conduct 36 substation inspections per quarter with an annual target of 144 substation inspections.

### 7.3.5 - Vegetation Management & Inspection

Detailed inspections and management practices for vegetation clearances around distribution electrical lines and equipment 7.3.5.2

Detailed Inspection Program

Ahead of Schedule

#### **Detailed Inspection Activities:**

**Volume vs Q3 2022 Goal:** BVES set a target of 6 circuit miles by end of Q3. BVES plans to conduct 29 circuit miles of inspection in 2022. **Key Actions:** BVES was able to complete 29.58 circuit miles of inspection in Q2 meeting its annual target originally projected for completion in Q4.

Emergency response vegetation management due to red flag warning or other urgent conditions 7.3.5.4

Emergency Preparedness & Response Program

Improvement of inspections 7.3.5.6

**Quality Control of Inspections** 

Identification and remediation of "at-risk species" 7.3.5.15

**Planned** 

#### **Emergency Preparedness and Response Program:**

**Volume vs Goal:** BVES did not record an emergency in Q3 of 2022; therefore, use of the Emergency Preparedness & Response Program was not required.

#### Improvement of Inspections:

**Volume vs Q3 2022 Goal:** One vegetation management audit was planned for Q3 2022. BVES was able to complete 1 vegetation management audits in Q3 2022. BVES has conducted 4 audits as of Q3 2022.

**Key Actions:** BVES plans to conduct one audit per quarter with an annual target of 4 vegetation management audits in 2022.

#### **Remediation of At-Risk Species:**

**Key Actions:** BVES and its contractors account for at risk species when doing field work and evaluation. Cycle Breaker vegetation is are an example of what may be recorded. Remediation as a separate initiative is considered for the future with no set program/project at this time.

Remote sensing inspections of vegetation around distribution electric lines and equipment 7.3.5.7

LiDAR Inspection Program

Other discretionary inspections of vegetation around distribution electric lines and equipment

7.3.5.9.1 Third Party Ground Patrol

Other discretionary inspections of vegetation

around distribution electric lines and equipment 7.3.5.9.2

UAV HD Photography/Video Program

#### **LiDAR Inspection Activities**

**Volume vs Q3 2022 Goal:** 211 circuit miles were scheduled for Q3 of 2022. 211 circuit miles were inspected in Q3 2022. **Key Actions:** BVES plans to complete 211 circuit miles, which would fulfil the goal of conducting infrared inspections of the entire system annually. Survey was completed in Q2, and the results package was provided in Q3.

**Contracted Third Party Inspection** 

**Volume vs Q3 2022 Goal:** 211 circuit miles were scheduled for Q3 of 2022. 211 circuit miles were inspected in Q3 2022.

**Key Actions:** BVES plans to complete 211 circuit miles, which would fulfil the goal of conducting infrared inspections of the entire system annually. Survey was completed in Q2, and the results package was provided in Q3.

**UAV HD Photography/Video Program** 

Volume vs Q3 2022 Goal: 211 circuit miles were scheduled for Q3 of 2022. 211 circuit miles were inspected in Q3 2022. Key Actions: BVES plans to complete 211 circuit miles, which

would fulfil the goal of conducting infrared inspections of the entire system annually. Survey was completed in Q2, and the results package was provided in Q3.

Patrol inspections of vegetation around distribution electric lines and equipment 7.3.5.11

Patrol Inspection Program

#### **Patrol Inspection within the Service Area**

**Volume vs Q3 2022 Goal:** BVES targeted 211 circuit miles inspected by Q3 2022. BVES was able to conduct 158.16 circuit miles of inspection by Q3 2022. As of the date of this report, the target of 211 circuit miles was achieved.

Key Actions: BVES plans to inspect 211 circuit miles in 2022.

### 7.3.5 - Vegetation Management & Inspection

Quality assurance / quality control of vegetation inspections 7.3.5.13

Quality Control of Inspections 38 QC Reviews

Recruiting and training of vegetation management personnel 7.3.5.14

Vegetation Management Program
Staffing
Met Targets

Removal and remediation of trees with strike potential to electric lines and equipment 7.3.5.16

**Enhanced Vegetation Management Program** 

Fuel management (including all wood management) and management of "slash" from vegetation management activities
7.3.5.5

Enhanced Vegetation Management Program

Contractor Meets Requirements

#### **Quality Control for Electrical Inspections Program**

**Volume vs Q3 2022 Goal:** BVES planned to conduct 18 quality controls reviews in Q3 2022. BVES was able to conduct 38 quality control reviews in Q3 2022.

**Key Actions:** BVES plans to conduct 18 quality control reviews per quarter with an annual target of 72 quality control reviews in 2022.

#### **Resource Allocation & Training:**

BVES has an established program in place and continues to monitor all aspects of the program for compliance. During the period Q3 of 2023, there were no compliance issues identified. **Key Actions:** BVES reviewed staffing program and methodology

#### **Mid-Year Detailed Inspection Activities**

**Volume vs Q3 2022 Goal:** BVES planned to remove/remediate 30 hazardous trees in Q3 2022. BVES was able to remove/remediate 49 hazardous trees in Q3 2022.

**Key Actions:** BVES plans to remove/remediate 88 trees in 2022. BVES has removed/remediated 116 in 2022.

#### **Enhanced VM Program Inspection**

**Key Actions:** This is a contractor lead initiative. Following the monthly substation inspections identified vegetation concerns and their associated waste are removed by the contractor per the contract. At which point BVES is notified, and the inspection and removal is logged.

Substation inspection 7.3.5.17

GO-174 Substation Inspection Program

Inspected & Cleared Vegetation

Substation vegetation management 7.3.5.18

Substation Vegetation
Management Inspections &
Corrections

#### **Substations Inspected**

**Volume vs Q3 2022 Goal:** BVES planned to inspect 36 substations in Q3 2022. BVES was able to clear 39 substations in Q3 2022.

**Key Actions:** BVES plans to inspect 36 substations per quarter with an annual target of 144 circuit miles cleared in 2022. BVES has inspected 117 substations in 2022.

#### **Substation Inspection**

**Key Actions:** This is a contractor lead initiative. Following the monthly substation inspections identified vegetation concerns and their associated waste are removed by the contractor per the contract. BVES is then notified, and the inspection and removal is logged.

Vegetation management enterprise system 7.3.5.19

GIS Data Collection & Sharing
Trimmed Trees Logged

#### **GIS Data Collection & Sharing:**

**Volume vs 2022 Goals:** BVES continues to work towards a class leading Data Repository.

**Key Actions:** BVES continue to work with its contracted experts to update its GIS database as well as develop a more streamlines method for reporting and sharing of information.

Vegetation management to achieve clearances around electric lines and equipment 7.3.5.20

**Enhanced Vegetation Management Program** 

#### **Circuit Miles Cleared:**

**Volume vs Q3 2022 Goals:** BVES planned to cleared 54 circuit miles by Q3 2022. BVES was able to clear 12.84 circuit miles in Q3 2022 bring the YTD total to 74.46. **Key Actions:** BVES plans to clear 72 circuit miles in 2022. With the 12.84 cleared in Q3 BVES has cleared 74.46 circuit miles in 2022.



### 7.3.5 - Vegetation Management & Inspection

Additional efforts to manage community and environmental impacts 7.3.5.1

Contracted Forester Service //
Environmental Impact Mitigation
Activities

**Quality Control for Electrical Inspections Program** 

**Volume vs Goal:** BVES will continue to conduct outreach with the USFS, CAL FIRE, and Big Bear Fire Department to develop collaborative measures in the area of fuels management. BVES will also exchange information with other utilities to determine best practices in this area of managing community and environmental impacts on the vegetation management program.

Vegetation Management Activities Post-Fire 7.3.5.21

Veg Management Activities Post-Fire

Vegetation Management Activities Post-Fire:
Volume vs Goal: BVES will consider example preparatory vegetation management activities performed by similar IOUs in response to a wildfire and make updates, as necessary. BVES will consult with CAL FIRE, other utilities, and vegetation contractors to develop a list of preparations

that would be beneficial to have in place in the event the

service area experiences a wildfire.

## 7.3.6 - Grid Operations & Operating Protocols

Automatic Recloser Operations
7.3.6.1

Grid Automation Program

Completed

#### <u>Fault Interrupters – IntelliRupters Pulsing Auto Reclosers – Completed Cycle Work:</u>

**Volume vs Goal:** BVES plans to install S&C's Pulse Closer Fault Interrupters across its major 34 kV system auto-reclosers that was completed in 2020. **Key Actions:** None planned for 2022.

Protective equipment and device settings 7.3.6.2

Protective Equipment and

**Device Settings** 

#### **Protective Equipment and Device Settings:**

**Key Actions:** All protective device settings are logged and controlled by Engineering. The settings are set based on coordination studies. BVES does not use special Fast Settings for fire season.

Crew-Accompanying Ignition Prevention and Suppression Resources and Services 7.3.6.3

Emergency Preparedness & Response Program

**No Emergency Events** 

Stationed and On-Call Ignition
Prevention and Suppression
Resources and Services
7.3.6.7
Emergency Preparedness &

Emergency Preparedness & Response Program
Ongoing

#### **Emergency Preparedness & Response Program:**

BVES has an established program in place. BVES continues to monitor all aspects of the program for compliance. During the period Q3 of 2022, there were no emergency events that would require the use of said program.

**Key Actions:** There were no key actions related to this program in Q3 of 2022.

Personnel Work Procedures and Training in Conditions of Elevated Fire Risk 7.3.6.4

7.3.6.4
PSPS Program & Procedures
Ongoing

Protocols for PSPS Re-Energization 7.3.6.5 PSPS Program & Procedures

**Established** 

Not Started Completed/Ongoing Ahead of Plan On Track Off Track

PSPS Events and Mitigation of
PSPS Impacts
7.3.6.6
PSPS Program & Procedures

**O PSPS Events** 

#### **PSPS Program & Procedure:**

BVES has an established program and procedures in place. BVES continues to monitor all aspects of the program for compliance. During the period Q3 of 2022 there were no PSPS events that would require the use of said program.

Key Actions: There were no key actions related to the Program as there were no PSPS events.

## 7.3.9 - Emergency Planning & Preparedness

Adequate and Trained
Workforce for Service
Restoration
7.3.9.1
Resource Allocation
Methodology

#### **Resource Allocation Methodology:**

BVES has an established program in place and continues to monitor all aspects of the program for compliance. During the period Q3 of 2022, there were no compliance issues identified.

**Key Actions:** Staffing for service restoration was reviewed and declared adequate. In the instance of a service restoration event BVES will review the results and re-evaluate staffing if necessary.

Community Outreach, Public Awareness, and Communications Efforts 7.3.9.2

Completed

Community Outreach Program

**Targets Exceeded** 

#### **Community Outreach Program:**

**Volume vs Q3 2022 Goal:** BVES had planned to conduct 90 outreach activities at minimum. BVES recorded 176 outreach activities 195% of target for Q3.

**Key Actions:** BVES exceeded its outreach targets in Q3 at 195% of the established target. BVES continues to establish coordination and communication events as pre-season PSPS planning takes place.

Disaster and Emergency
Preparedness Plan
7.3.9.4
Emergency Preparedness
& Response Program

& Response Program
Established

Customer Support in Emergencies 7.3.9.3 Emergency Preparedness

& Response Program **Established** 

Preparedness and Planning for Service Restoration 7.3.9.5

Emergency Preparedness & Response Program

**Ongoing** 

Protocols in Place to Learn from Wildfire Events 7.3.9.6 Emergency Preparedness & Response Program

**In Progress** 

## **Emergency Preparedness and Response Program:**

**Volume vs Q3 2022 Goal:** BVES did not record an emergency in Q3 of 2022. This means that the use of the Emergency Preparedness & Response Program was not required.

## 7.3.8 - Resource Allocation Methodology

Allocation Methodology
Development and
Application
7.3.8.1
Resource Allocation

Methodology

**Program In Process** 

#### **Resource Allocation Methodology [Primary]:**

BVES has an established program in place and continues to monitor all aspects of the program for additional staff. During the period Q3 of 2022, there were no gap issues identified.

**Key Actions:** BVES routinely reviewed staffing program needs.

Risk Reduction Scenario Development and Analysis 7.3.8.2

Ignition Probability & Wildfire Consequence Mapping

Completed

**Contracting with Risk Mapping Resource** 

**2022 Goal:** During 2021 in conjunction with the contracted resource BVES completed its initial Risk Mapping. Due to a lack of historical data, the PSPS risk reduction aspect was deferred. For 2022, BVES plans to contract with Technosylva to develop real-time fire modeling capabilities.

**Key Actions:** BVES continues to evaluate the best course of action to add PSPS Risk Reduction mapping and has engaged a contractor for additional modeling support. BVES has a contract with Technosylva and is making progress on project goals.

Risk Spend Efficiency
Analysis
7.3.8.3
Ignition Probability &
Wildfire Consequence
Mapping
In Progress

#### **Contracting with Risk Mapping Resource**

**2022 Goal:** BVES completed its initial Risk Mapping in 2021 in conjunction with a contracted resource. Due to a lack of historical data, the PSPS risk reduction aspect was deferred. For 2022 BVES plans to evaluate the best course of action to add this tool to its Risk Assessment & Mapping program.

**Key Actions:** BVES continues to evaluate the best course of action to add PSPS Risk Reduction mapping to its Risk Assessment & Mapping program.



February 1, 2023

Via E-Mail

Bear Valley Electric Service, Inc. ("BVES or Bear Valley") hereby transmits for filing the following:

<u>SUBJECT:</u> Q4 2022 BVES Quarterly Notification to the Office Of Energy Infrastructure Safety Regarding BVES's Implementation of its Wildfire Mitigation Plan Pursuant to Public Utilities Code Section 8389(e)(7)

Pursuant to Public Utilities Code ("PUC") Section 8389(e)(7), and the February 16, 2021 Office of Energy Infrastructure Safety ("Energy Safety") Compliance Operational Protocols, Bear Valley submits to Energy Safety this notification detailing the implementation of its approved Wildfire Mitigation Plan ("WMP"), implementation of BVES's most recent safety culture assessment and the recommendations of the most recent safety culture assessment, and a statement of activities and recommendations of the BVES Safety and Operations Committee meetings that occurred during the quarter.

#### **PURPOSE**

The purpose of this notification is to comply with the requirements of Section 8389(e)(7), which were added to the Public Utilities Code by Assembly Bill (AB) 1054 on July 12, 2019, and subsequently amended by AB 148 on July 22, 2021, to reflect the transition of the Wildfire Safety Division at the California Public Utilities Commission ("CPUC") to the Office of Energy Infrastructure Safety (OEIS). Section 8389(e)(7) requires electrical corporations to file a notice of implementation of its wildfire mitigation plan with OEIS "on a quarterly basis that details the implementation of both its approved wildfire mitigation plan and recommendations of the most recent safety culture assessment, and a statement of recommendations of the board of directors safety committee meetings that occurred during the quarter." Section 8389(e)(7) also requires that the notification "summarize the implementation of safety committee recommendations from the electrical corporation's previous notification and submission." BVES is simultaneously submitting this notice to the CPUC as an information only submittal.

This notification reports BVES's 2022 fourth quarter ("Q4") WMP activities, recorded Safety Committee meetings, and recommendations of the most recent safety culture assessment.

This Quarterly Notification Letter ("QNL") notification is BVES's fourth quarterly filing for calendar year 2022 and is simultaneously submitted to the CPUC's Safety Policy Division and its Program and Project Supervisor as an information-only submittal.

#### IMPLEMENTATION OF BVES'S WILDFIRE MITIGATION PLAN

To support sustained implementation and improvement of the WMP, BVES continues to track progress through metrics on applicable initiatives in 10 categories for mitigating wildfire in addition to the quarterly data, which conform to OEIS standards. BVES's quarterly initiative summary presentation includes information submitted to the OEIS under the Quarterly Data Report ("QDR") filings for Q4 2022 prepared in accordance with OEIS Data Guidelines (Version 3.0) of December 14, 2022.

In Attachment A, BVES provides an initiative summary of progress for individual mitigation measures during Q4 2022.

#### Overview of Significant Achievements and Issues

BVES made significant progress in achieving its WMP initiative targets for 2022.

As of the end of Q4 2022, some of the more significant achievements were:

- Exceeded the 2022 target to harden 412 poles along the main evacuation routes to the Big Bear Lake area. The target was achieved by installing fire resistant wire mesh on the 597 poles. This completes BVES's effort to have all of its evacuation routes hardened by 2022. BVES front loaded this effort to ensure it was completed prior to the fire season.
- Replaced 12.96 circuit miles of 34.5 kV sub-transmission and 4 KV distribution bare wire with covered conductors, which meets the 2022 annual target of 12.9 circuit miles.
- Automated a third substation achieving the annual target of automating three substations.
- Assessed 294 poles for safety factor, which is ahead of the 2022 annual target of 225.
   Also, 212 poles were replaced or remediated by the end of 2022, which is ahead of the 2022 annual target of 165.
- By the end of 2022, 853 poles had been intrusively inspected, which exceeds the annual target of 850.
- A total of 81 attachments were remediated as part of The Tree Attachment Removal Program in 2022. This exceeds the annual target of 80.
- Cleared vegetation to enhance clearance specifications along 86.6 circuit miles, which exceeds the 2022 annual target of clearing 72-circuit miles. Additionally, the vegetation management crews removed 147 hazard trees with strike potential, which is ahead of the 2022 annual target of 88.
- Completed LiDAR surveys, Aerial Thermography and HD Imagery inspections, and 3<sup>rd</sup> Party Independent Ground Patrol so that any fire hazard discrepancies could be addressed before the fire season.
- Community engagement on PSPS and WMP was at 712 engagements of various types by the end of 2022, which exceeds the 2022 annual target of 360 engagements. Additionally, the stakeholder and community briefs were conducted on the PSPS process.

 By the end of 2022, BVES completed 32.4 circuit miles of detailed inspections of distribution electric lines and equipment along with inspecting vegetation around distribution electric lines. This exceeded the 2022 annual target of 29.6 circuit miles. In addition, 255 miles of patrol inspections were completed meeting the target of 211 circuit miles.

Bear Valley did not meet or exceed its target for the Radford Line Replacement Project to replace poles with fire resistant poles and install covered conductors. Construction work on the Radford Line Replacement Project, which replaces bare wire with covered conductor and wood poles with fire resistant poles in the High Fire Threat District Tier 3, is delayed at least until June 2023 (previously BVES planned to start construction no later than June 2022). The delay is due to the United States Forest Service ("USFS") not approving BVES's permit to construct in time to start and complete construction before the winter weather season in 2022. BVES is working closely with the USFS and has made significant progress in satisfying USFS permitting requirements. BVES believes it is on track to obtain the permit according to the following updated timeline of major permitting milestones:

- Submit revised permit application to USFS for cultural survey- Step Completed
- USFS responds with 6 additional questions, Archaeologist will answer and resubmit – Step Completed
- Receive approval from USFS to conduct cultural survey-5 weeks- Step Completed
- Archaeologist will conduct cultural survey, write up report for NEPA & CEQA then sends to USFS- Step Completed
- USFS completes review of cultural report and submits to SHPO- Anticipated week of 2/13/23
- USFS finalizes CE- Anticipated week of 2/13/23
- USFS publishes CE for 30 day public review- Anticipated week of 2/20/23
- SHPO completes review and accepts cultural report- Anticipated week of 3/13/23
- BVES incorporates cultural report and completes CEQA categorical exemption -Anticipated week of 3/20/23
- USFS signs CE, NEPA process complete-**Anticipated week of 3/27/23**
- BVES files notice of detention with San Bernardino Co. clerk recorder **Anticipated week of 3/27/23**
- Once categorical exemption is filed with county clerk recorder there is a 30 day period for legal challenge-if no challenges-CEQA CE is final

Based on this timeline, BVES anticipates commencing the project in June 2023 depending on snowpack and complete the project by October 2023.

In the interim, BVES will continue to de-energize the Radford Line when load requirements do not require its operation, generally from the end of March through

November of each year. Prior to energizing the Radford Line, BVES will patrol the line. Additionally, when the line is energized, the recloser for that circuit will be placed in manual (no automatic reclosing).

# IMPLEMENTATION OF BVES'S MOST RECENT SAFETY CULTURE ASSESSMENT

BVES completed its safety culture assessment in accordance with Resolution WSD-011. BVES staff conducted safety culture assessment surveys during the period of May 12, 2021 to May 26, 2021.

On October 27, 2021, OEIS issued the Safety Culture Assessment ("SCA") report to BVES. BVES accepted the report on October 28, 2021 by letter to OEIS. BVES initiated action to implement the recommendations of the report. The recommendations and status of implementing them are as follows:

1. <u>Recommendation</u>: Embed leadership skills development into the "Engaged Management" 12-month objective to improve the Bear Valley safety culture.

#### Action to Implement:

- The President personally provided training and coaching to managers and frontline supervisors on how to achieve safety culture improvements through open communications, listening, taking action on employee's concerns, setting the "high standards" example, and constantly emphasizing the important role their employees have in public safety. This training was conducted in December 2021.
- EHS Consultant provided professional training to leadership on performing effective JHAs and monitoring employee and contractor safety performance. Other training areas covered:
  - Skills to enhance leadership's ability to effect positive safety improvements.
  - Importance of addressing safety planning and objectives at BVES's Weekly Management Meeting.
  - o This training was conducted in March 2022.
- Leadership engages in open dialog with employee representatives at monthly management-employee safety committee meetings. This was first implemented at the January management-employee safety committee and is ongoing.
- Each Supervisor conducts weekly meetings with his/her Team where they:
  - Emphasize the role and responsibility each employee has in public safety.
  - Discuss the importance of listening to each other as well as other stakeholders in wildfire mitigation work.
  - Express their openness to receiving suggestions on how to improve public safety.

- Ensure employees know that reporting problems and/or mistakes is critical to public safety.
- Emphasize that work must only be done with the proper tools. If tools are not available or damaged, the work must stop and the situation must be resolved before starting work again. The President emphasized that if production is lost or schedules missed, so be it.
- o This effort was implemented in January 2022 and is ongoing.
- Safety performance is the top line on all manager and supervisor appraisals.
   Performance metric goals have been set. This was implemented on appraisals for 2021 performance and is ongoing.
- EHS contractor has been tasked with checking on the effectiveness of these effort with respect to employees' perceptions of leadership toward safety results are pending. This will be completed in November 2022.
- 2. <u>Recommendation</u>: In collaboration with its vegetation management contractor, BVES develops and implements an action plan to address safety culture issues, in particular regarding the flow of information about wildfire hazard mitigation. In addition, BVES has been working closely with its vegetation management contractor to ensure that the action plan to address safety culture issues is successfully implemented.

#### Action to Implement:

- The issue was discussed with the vegetation contractor's CEO, Operations Manager, and Safety Group by BVES President. This action was completed in November 2021.
- BVES worked closely with its vegetation contractor Safety Group to address
  the issues identified and to ensure a specific plan was in place to improve
  information flow among contractor employees and between contractor
  employees and supervisors about wildfire hazards. The plan included steps
  to increase compliance with procedures to control workplace and wildfire
  hazards. BVES and its vegetation contractor developed the plan jointly. This
  action was completed in March 2022.
- Vegetation Contractor conducted training with crews and then examined the
  effectiveness of the training through an internal safety culture survey, which
  showed significantly improved results. This action was completed in March
  2022.
- BVES meets with the vegetation contractor's field crews on a weekly basis to discuss safety issues, pass on safety and wildfire mitigation lessons learned, and improve situational awareness of operations and the environment (e.g., discuss high fire threat weather). This action was implemented in November 2021 and is ongoing.

BVES has fully implemented the recommendation of the 2021 SCA.

In August 2022, BVES employees and contractors involved in WMP work completed the 2022 SCA surveys and BVES submitted the documents requested by Energy Safety's SCA Team for the 2022 SCA.

#### SAFETY AND OPERATIONS COMMITTEE MEETING

On November 10, 2022, BVES's Safety and Operations Committee ("Committee") convened. Chairman Paul Marconi briefed the Committee on current safety items at BVES including Wildfire Mitigation Plan (WMP) compliance, COVID-19 and the plan to re-open offices, safety metrics and performance, and Safety Culture Assessment. He then briefed the Committee on fire season preparations and the status of 2022 WMP initiatives and targets. Chairman Marconi discussed these items and noted several WMP initiative safety accomplishments that improve public safety. Chairman Marconi then briefed the Committee on the 2023-2025 WMP Guidelines and Compliance schedule. The Committee discussed the briefed items, asked questions, which Mr. Marconi addressed, and, based on the information briefed, the Committee did not see the need to alter the initiatives or provide additional direction to management.

Chairman Marconi discussed the 2023 capital budget with respect to public safety WMP projects. He referred the Committee to a draft resolution provided recommending that the Board approve additional capital expenditures in the amount for public safety WMP capital improvement projects. Mr. Hawks recommended some edits to the draft resolution. The Committee discussed the modified resolution, and upon motion duly made, seconded and unanimously carried, the Committee approved the resolution.

There being no further business to come before the Committee, the meeting adjourned.

#### **NOTICE**

This filing will be submitted to the Office of Energy Infrastructure Safety, the Executive Director of the California Public Utilities Commission, and posted to the BVES website at <a href="https://www.bvesinc.com/safety/wildfire-mitigation-plan">https://www.bvesinc.com/safety/wildfire-mitigation-plan</a>.

Sincerely,

#### /s/ Nguyen Quan

Nguyen Quan Manager, Regulatory Affairs Bear Valley Electric Service, Inc. 630 East Foothill Blvd. San Dimas, California 91773 Email: Regulatory Affairs@bvesinc.com (909) 394-3600 ext. 664

#### Attachment A

Initiative Summary of Progress for Individual Mitigation Measures during Q4 202



# Wildfire Mitigation Plan Quarterly Notification Letter Initiatives Update

Bear Valley Electric Service, Inc.

Not Started Completed/Ongoing Ahead of Plan On Track Off Track Not Currently Scheduled\*

#### 7.3.4 - Asset Management & Inspections

Detailed inspections of distribution electric lines and equipment 7.3.4.1

Detailed inspections of transmission electric lines and equipment 7.3.4.2

Improvement of Inspections 7.3.4.3

Infrared inspections of distribution electric lines and equipment 7.3.4.4

Infrared inspections of transmission electric lines and equipment 7.3.4.5

Intrusive Pole Inspections 7.3.4.6 LiDAR inspections of distribution electric lines and equipment 7.3.4.7 LiDAR inspections of transmission electric lines and equipment 7.3.4.8

Other discretionary inspection of distribution electric lines and equipment, beyond inspections mandated by rules and regulations 7.3.4.9

Other discretionary inspection of transmission electric lines and 7.3.4.10

Patrol inspections of distribution electric lines and equipment 7.3.4.11

Patrol inspections of transmission electric lines and equipment 7.3.4.12 Pole loading assessment program to determine safety factor 7.3.4.13

Quality assurance / quality control of inspections 7.3.4.14

Substation inspections 7.3.4.15

### 7.3.6 - Grid Operations & Protocols

Automatic Recloser Operations 7.3.6.1

Energization

7.3.6.5

7.3.6.1 7.3.

Protocols for PSPS Re-

Protective Equipment and Device Settings 7.3.6.2

> PSPS Events and Mitigation of PSPS Impacts 7.3.6.6

Crew-Accompanying Ignition Prevention and Suppression Resources and Services 7.3.6.3

Procedures and Training in Conditions of Elevated Fire Risk 7.3.6.4

Personnel Work

Stationed and On-Call Ignition Prevention and Suppression Resources and Services 7.3.6.7

## 7.3.1 - Risk Assessment & Mapping

A Summarized Risk
Map That Shows the
Overall Ignition
Probability and
Estimated Wildfire
Consequence Along
the Electric Lines and
Equipment
7.3.1.1

Climate-Driven Risk Map and Modeling Based on Various Relevant Weather Scenarios 7.3.1.2

Initiative Mapping and Estimation of Wildfire and PSPS Risk-Reduction Impact 7.3.1.4

Ignition Probability Mapping Showing the Probability of Ignition Along the Electric Lines and Equipment 7.3.1.3

Match Drop Simulations Showing the Potential Wildfire Consequence of Ignitions that Occurs Along the Electric Lines and Equipment 7.3.1.5

#### 7.3.7 - Data Governance

Centralized Repository for Data 7.3.7.1 Collaborative Research on Utility Ignition and/or Wildfire 7.3.7.2

Documentation and
Disclosure of WildfireRelated Data and Algorithms
7.3.7.3

Tracking and Analysis of Near Miss Data 7.3.7.4

## 7.3.10 - Stakeholder Cooperation & Community Outreach

Community Engagement 7.3.10.1 Cooperation and best practice sharing with agencies outside CA 7.3.10.2

Cooperation with suppression agencies 7.3.10.3

Forest service and fuel reduction cooperation and joint roadmap 7.3.10.4

7.3.3.8

Pole Loading Infrastructure Hardening and

Replacement Program Based on Pole

**Loading Assessment Program** 

7.3.3.13

7.3.3.7

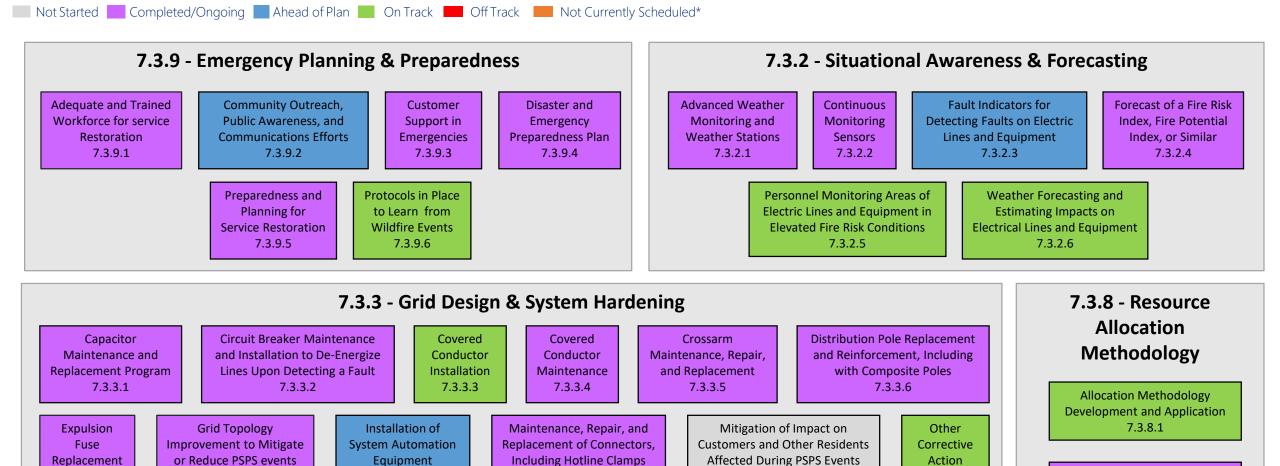
7.3.3.9

Transformers

Maintenance and

Replacement

7.3.3.14



**Risk Reduction Scenario** 

Development and Analysis 7.3.8.2

**Risk Spend Efficiency Analysis** 

7.3.8.3

7.3.3.12

**Updates to Grid Topology** 

to Minimize Risk of

Ignition in HFTDs

7.3.3.17

7.3.3.11

Undergrounding of

Electric Lines and/or

Equipment

7.3.3.16

#### (\*) Not Currently Scheduled – BVES included this Status Icon to indicate where an initiative is not currently identified for this WMP cycle, or, that it is not applicable (BVES does not own or operate assets equal to or greater than 65kV).

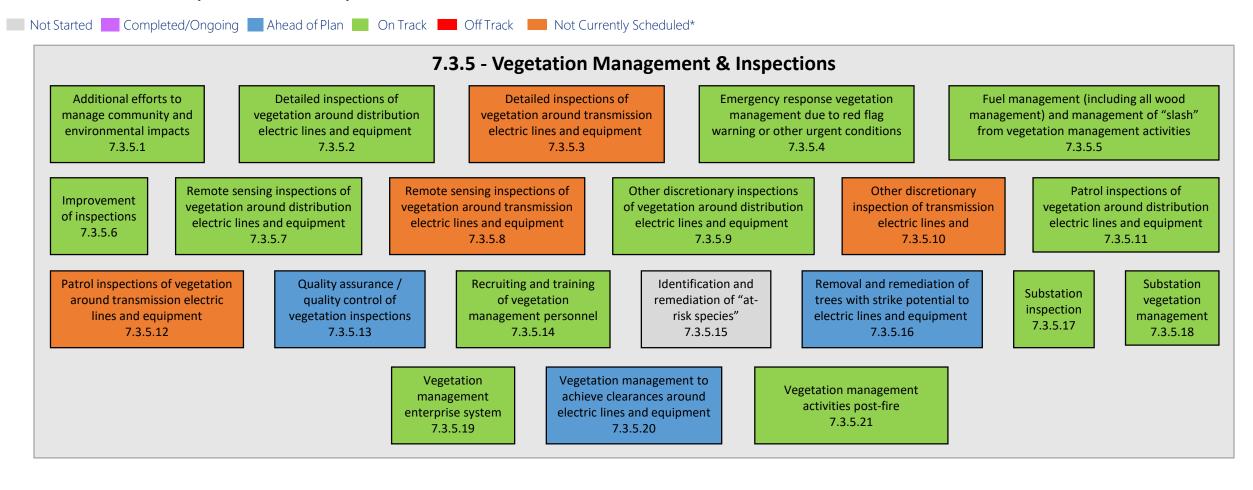
7.3.3.10

**Transmission Tower** 

Maintenance and

Replacement

7.3.3.15



## 7.3.1 - Risk Assessment & Mapping

A Summarized Risk Map That Shows the Overall Ignition Probability and Estimated Wildfire Consequence Along the Electric Lines and Equipment 7.3.1.1

Ignition Probability & Wildfire Consequence Mapping Project

**Completed** 

Ignition Probability Mapping Showing the Probability of Ignition Along the Electric Lines and Equipment 7.3.1.3

Ignition Probability & Wildfire Consequence Mapping Project Completed

Climate-Driven Risk Map and
Modeling Based on Various Relevant
Weather Scenarios
7.3.1.2
Ignition Probability & Wildfire

Ignition Probability & Wildfire Consequence Mapping Project Completed

Initiative Mapping and Estimation of Wildfire and PSPS Risk-Reduction Impact 7.3.1.4

Ignition Probability & Wildfire Consequence Mapping Project

On Track

Match Drop Simulations Showing the Potential Wildfire Consequence of Ignitions that Occurs Along the Electric Lines and Equipment 7.3.1.5

Ignition Probability & Wildfire Consequence Mapping Project

Completed

#### **Contracting with Risk Mapping Resource:**

**2022 Goal:** During 2021 in conjunction with the contracted resource BVES completed its initial Risk Mapping. Due to a lack of historical data the PSPS risk reduction aspect was deferred. For 2022 BVES plans to evaluate the best course of action to add this tool to its Risk Assessment & Mapping program.

Key Actions: BVES continues to evaluate the best course of action to add PSPS Risk Reduction mapping to its Risk Assessment & Mapping program.

## 7.3.7 - Data Governance

Centralized Repository for Data 7.3.7.1

GIS Data Collection & Sharing

On Track

#### **GIS Data Collection & Sharing Improvements:**

BVES continues to work towards a class leading Data Repository. **Key Actions:** BVES continue to work with its contracted experts to update its GIS database as well as develop a more streamlined method for reporting and sharing of information.

Tracking and Analysis of Near Miss Data 7.3.7.4 WMP Metrics Tracking

Ongoing

#### **WMP Metrics Tracking:**

BVES has an established program in place and continues to monitor all aspects of the program for compliance. During the period Q2 of 2022 there were no compliance issues identified.

**Key Actions:** BVES recorded necessary metrics for inclusion in quarterly reporting.

Documentation and disclosure of wildfire-related data and algorithms 7.3.7.3

GIS-Based Apps // Data Sharing Activities

On Track

#### **GIS-Based Applications & Data Sharing Activities:**

**Key Actions:** BVES is an active participant in Energy Safety's Risk Model Working Group and will continue to exchange information and lessons learned from the participants to improve its ability to utilize probabilistic risk models and mapping.



## 7.3.2 - Situational Awareness & Forecasting

Advanced Weather Monitoring and
Weather Stations
7.3.2.1
Situational Awareness Hardware
Program
Completed

## Revised Schedule for 2021 Planned Deployment & Additional Installation:

**Volume vs 2022 Goal:** BVES does not have any planned weather stations for 2022.

**Key Actions:** BVES continues to evaluate the needed for future weathers stations in its operating territory.

ne needed for future

#### **Contracting with Risk Mapping Resource:**

**Volume vs 2022 Goal:** During 2021 in conjunction with the contracted resource BVES completed its initial Risk Mapping.

**Key Actions:** BVES continues to evaluate the need for future improvements to the designed system.

Continuous Monitoring Sensors 7.3.2.2 Situational Awareness Hardware Program

Completed

#### **Situational Awareness Hardware Program:**

**Volume vs 2022 Goal:** BVES does not have any planned HD Cameras for 2022.

**Key Actions:** BVES continues to evaluate the needed for future HD Cameras in its operating territory.

Personnel Monitoring Areas of Electric Lines and Equipment in Elevated Fire Risk Conditions 7.3.2.5

Forecast of a Fire Risk Index, Fire

Potential Index, or Similar

7.3.2.4

Weather Consultant / Risk

Mapping

Completed

Grid Operations & Protocols
No High-Risk Events
Occurred

#### **Grid Operations & Protocol:**

**Volume vs 2022 Goal:** BVES has established a resource allocation level for the instance where a high fire risk condition occurs.

**Key Actions:** BVES currently has the resource pool available to combat high fire risk conditions in its operating area.

Fault Indicators for Detecting Faults on Electric Lines and Equipment 7.3.2.3

Situational Awareness Hardware Program On Track

#### <u>Situational Awareness Hardware Program:</u>

**Volume vs Q4 2022 Goal:** BVES began this program in Q3 with a target of 30 fault indicator installations in Q4 and 50 in 2022. BVES was able to complete 24 installations in Q4. **Key Actions:** BVES completed and surpassed the 2022 goal of 50 fault indicator installations by installing 99.

Weather Forecasting and Estimating Impacts on Electrical Lines and Equipment 7.3.2.6

Weather Consultant
Support Requirement
Met

#### **Weather Consultant for Weekly Reporting:**

**2022 Goal:** BVES currently has a weather consultant on payroll who supports the weather forecasting and analysis necessary.

**Key Actions:** Additional task for quarterly aggregation of High Wind Warning and Red Flag Warning accounts to support Quarterly Data Reports.

## 7.3.3 - Grid Design & System Hardening

**Covered Conductor** Installation 7.3.3.3.1 **Covered Conductor** 

**Replacement Program** 

**Ahead of Plan** 

**Covered Conductor Replacement Program:** 

Volume vs Q4 2022 Goal: BVES planned to complete a total of 12.9 circuit miles by the end of Q4. BVES was able to complete total of 12.96 by Q4. The target for 2022 is 12.9 circuit miles. **Key Actions:** BVES was able to complete 2.61 circuit miles of

covered conductor instillation. BVES met its 2022 Target.

**Covered Conductor** 7.3.3.3.2

**Covered Conductor Replacement Program -**Radford

Delayed

**Covered Conductor Replacement Program - Radford:** 

Volume vs 2022 Goal: BVES has had to adjust its target for 2022 to 0 circuit miles.

**Key Actions:** Due to not being able to obtain permits from the U.S. Forest Service BVES will not be able to start work on this project until 2023.

Distribution Pole Replacement and Reinforcement. Including with Composite Poles 7.3.3.6.1

**Distribution Pole** Replacement and Reinforcement - GO 95 **Projects** 

**Distribution Pole Replacement and Reinforcement - GO 95 Projects:** 

Volume vs 2022 Goal: There are no current targets for this initiative in 2022.

**Key Actions:** Initiative targets will be evaluated for future calendar years.

**Distribution Pole Replacement** and Reinforcement, Including with Composite Poles 7.3.3.6.2

**Covered Conductor Project – Radford Line** 

Other Corrective Action 7.3.3.12.1

**Tree Attachment Removal Program**  **Completion Toward 80 Attachment Removals for the Year:** 

Volume vs Q4 2022 Goal: BVES removed 32 tree attachments in Q4 of 2022, totaling 83 out of 80 planned for 2022.

Key Actions: BVES plans to remove 80 tree attachments in 2022. BVES will remove tree attachments in association with other work as well.

Other Corrective Action 7.3.3.12.2 **Evacuation Route** 

**Hardening Ahead of Plan**  **Evacuation Route Hardening:** 

**Volume vs 2022 Goal:** BVES planned to harden 412 poles in 2022 as part of its Evacuation Route Hardening Program. 412 wood poles were hardened in Q1 with a wire mesh protective coating. BVES hardened an additional 185 poles in Q3 & Q4.

**Key Actions:** BVES was able to meet its 2022 Goal of 412 poles hardened in Q1 of 2022. BVES has now hardened 597 poles in 2022.

**Covered Conductor Project -Radford Line:** 

Volume vs 2022 Goal: There are no current targets for this initiative in 2022.

**Key Actions:** Initiative targets will be evaluated for future calendar years.

**Distribution Pole Replacement** and Reinforcement, Including with Composite Poles 7.3.3.6.3

**Evacuation Route Hardening-**Pilot

**2020 Completed Route Hardening Pilot:** 

Volume vs 2022 Goal: The BVES does not have an established goal for this pilot as it was completed in 2020.

**Distribution Pole Replacement** and Reinforcement, Including with Composite Poles 7.3.3.6.4

**Evacuation Route Hardening Ahead of Plan** 

#### **Evacuation Route Hardening:**

Volume vs 2022 Goal: BVES planned to harden 412 poles in 2022 as part of its Evacuation Route Hardening Program. 412 wood poles were hardened in Q1 with a wire mesh protective coating. BVES hardened an additional 185 poles in Q3 & Q4. **Key Actions:** BVES was able to meet its 2022 Goal of 412 poles hardened in Q1 of 2022. BVES has now hardened 597 poles in 2022.

Undergrounding of electrical lines and/or equipment 7.3.3.16 **Ongoing Routine Undergrounding Projects** 

#### **Ongoing Routine Undergrounding Projects:**

**Volume vs Goal:** BVES will continue to reassess the need for potential undergrounding projects and will continue to exchange information with other utilities on the advantages and disadvantages of UG and covered conductors through working groups. BVES will watch carefully for any advances in UG installation, especially those that reduce the price point while maintaining GO 128 minimum specifications.

## 7.3.3 - Grid Design & System Hardening

Expulsive Fuse Replacement 7.3.3.7

Fuse Replacement Program

O Remaining

Mitigation of Impact on Customers and Other Residents Affected During PSPS Events 7.3.3.11.1

Energy Storage Project
Planned

Installation of System
Automation Equipment
7.3.3.9.1
Grid Automation Program

Installation of System
Automation Equipment
7.3.3.9.2
Grid Automation Program //

**FLISR** 

Installation of System Automation Equipment 7.3.3.9.3

Grid Automation Program //
Fuse Trip Saver

#### **0 Conventional Fuses Remaining:**

**Volume vs 2022 Goal:** There are no current targets for this initiative in 2022.

**Key Actions:** This initiative was completed in 2021.

## 5 MW/ 20 MWh Energy Storage Facility Planned in 2023:

**2022 Goal:** Seek siting location and work on associated agreements.

**Key Actions:** BVES is still in the process of siting the storage device.

#### **Grid Automation:**

**Volume vs Q4 2022 Goal:** BVES planned to connect 1 substations to SCADA in Q4 of 2022. BVES was able to connect one substation to SCADA in Q4.

**Key Actions:** BVES has connected 3 substations to SCADA as of O4.

#### **Grid Automation FLISR Project:**

**Volume vs 2022 Goal:** Complete the project deliverables which includes software/system instillation.

**Key Actions:** This project/program will be completed in 2022.

#### **Grid Automation Fuse Trip Saver Project:**

**Volume vs 2022 Goal:** There are no activities planned for this initiative in 2022.

**Key Actions:** This project/program will begin in 2023.

Grid Topology Improvement to Mitigate or Reduce PSPS events 7.3.3.8

Grid Topology Improvements

Completed

Mitigation of Impact on Customers and Other Residents Affected During PSPS Events 7.3.3.11.2

BVPP Phase 4 Upgrade Project

Planned

#### **Grid Topology Improvements - Completed:**

**Volume vs Goal:** BVES will install sectionalizing devices as the need is determined. Currently, there are sufficient sectionalizing devices in the system; zero are planned in 2022.

**Key Actions:** No actions were taken for this initiative in Q4 of 2022.

#### **BVPP Phase 4 Upgrade Project Planned in 2023:**

**2022 Goal:** There are no activities planned for this initiative in 2022.

**Key Actions:** This project/program will begin in 2023.

Updates to Grid Topology to Minimize Risk of Ignition in HFTDs 7.3.3.17

Grid Topology Improvements

Completed

#### **Grid Topology Improvements - Completed:**

**Volume vs Goal:** BVES will install sectionalizing devices as the need is determined. Currently, zero are planned in 2022. **Key Actions:** No actions were taken for this initiative in Q4 of 2022.

Pole Loading Infrastructure
Hardening and Replacement
Program Based on Pole Loading
Assessment Program
7.3.3.13

Pole Loading & Replacement Program 197 Poles Assessed

#### **Pole Assessment Program:**

**Volume vs Q4 2022 Goal:** The goal for end of Q4 was to replace 165 poles as part of the pole loading & assessment process. BVES was able to replace 197 poles as of end Q4.

**Key Actions:** BVES has replaced 197 of its targeted 165 poles for 2022.

## 7.3.3 - Grid Design & System Hardening

Capacitor Maintenance and Replacement Program 7.3.3.1

**Complete / Ongoing** 

Crossarm Maintenance, Repair, and Replacement 7.3.3.5

**Complete / Ongoing** 

Circuit Breaker Maintenance and Installation to De-Energize Lines Upon **Detecting a Fault** 7.3.3.2

**Complete / Ongoing** 

Maintenance, Repair, and Replacement of Connectors, Including Hotline Clamps 7.3.3.10

**Complete / Ongoing** 

**Covered Conductor Maintenance** 7.3.3.4

**Complete / Ongoing** 

Transformers Maintenance and Replacement 7.3.3.14

**Complete / Ongoing** 

#### **BVES Maintenance Best Practice:**

The following Grid Design and System Hardening initiatives are covered under ongoing maintenance of sub-transmission and distribution facilities and are not separated as unique WMP initiatives.

## 7.3.10 - Stakeholder Cooperation & Community Outreach

Community engagement

7.3.10.1

**Community Outreach Program** 

**Exceeded Targets** 

**Community Outreach Program:** 

Volume vs Q4 2022 Goal: BVES had planned to conducted at minimum 90 outreach activities. BVES recorded 250 outreach activities 278% of target for Q4.

Key Actions: Grizzly Newspaper advertisements are posted during the week (M-F) for either WMP or PSPS and BVES will have 1 advertisement broadcasted each month.

Cooperation and best practice sharing with agencies outside CA 7.3.10.2

On Track

Cooperation and sharing with agencies outside CA:

Volume vs 2022 Goal: Currently BVES has attended two utility conferences in 2022 that include wildfire mitigation best practices.

**Key Actions:** BVES will participate in another utility conference in Q4 2022 and develop a plan for 2023.

Cooperation with suppression agencies 7.3.10.3

**Coordination On Track** 

**Cooperation with suppression agencies:** 

Volume vs 2022 Goal: BVES has cooperative discussions with local suppression agencies. BVES plans to have further discussion with suppression agencies and determine if there are additional actions that can be taken to improve their program. **Key Actions:** BVES established plans to engage in coordination efforts based on PSPS activations, which will include suppression agencies.

Forest service and fuel reduction cooperation and joint roadmap 7.3.10.4

On Track

**Cooperation with forest service and fuel reduction:** 

Volume vs 2022 Goal: Currently BVES has some cooperative discussions in forest service and fuel reduction cooperation and joint roadmap programs. BVES plans to have discussions with their forest service contacts to determine the applicability of these programs to improve their overall program. **Key Actions:** BVES plans to engage U.S. Forest Service in this

area.

Not Started Completed/Ongoing Ahead of Plan On Track Off Track

## 7.3.4 - Asset Management & Inspection

Detailed inspections of distribution electric lines and equipment 7.3.4.1

Detailed Inspection Program
Ahead of Schedule

Infrared inspections of distribution electric lines and equipment 7.3.4.4

UAV Thermography Program
On Track

Intrusive Pole Inspections
7.3.4.6
Intrusive Pole Inspection Program

On Track

LiDAR inspections of distribution electric lines and equipment 7.3.4.7

LiDAR Inspection Program

**On Track** 

#### **Detailed Inspection Activities**

**Volume vs Q4 2022 Goal:** BVES set a target of 29 circuit miles by end of Q4.

**Key Actions:** BVES was able to complete 32.41 circuit miles of inspection by the close of Q4 2022.

#### **UAV Inspection Activities**

**Volume vs 2022 Goal:**211 circuit miles were scheduled for 2022. **Key Actions:** BVES completed 211 circuit miles in Q3, fulfilling the goal of conducting infrared inspections of the entire system annually.

#### **Intrusive Pole Inspections**

**Volume vs Q4 2022 Goal:** BVES planned to assess 850 poles in 2022.

**Key Actions:** BVES was able to complete 853 intrusive inspections in 2022.

#### **LiDAR Inspection Activities**

**Volume vs 2022 Goal:** 211 circuit miles were scheduled for 2022. **Key Actions:** BVES completed 211 circuit miles in Q3, fulfilling the goal of conducting infrared inspections of the entire system annually.

Other discretionary inspection of distribution electric lines and equipment, beyond inspections mandated by rules and regulations
7.3.4.9.1

**Third Party Ground Patrol** 

On Track

#### **Contracted Third Party Inspection**

**Volume vs 2022 Goal:** 211 circuit miles were scheduled for 2022.

**Key Actions:** BVES completed 211 circuit miles in Q3, fulfilling the goal of conducting 3<sup>rd</sup> party ground patrol inspections of the entire system annually.

Other discretionary inspection of distribution electric lines and equipment, beyond inspections mandated by rules and regulations
7.3.4.9.2

UAV HD Photography/Video Program On Track

Improvement of Inspections 7.3.4.3

Ongoing Effort

#### **UAV HD Photography/Video Program**

**Volume vs 2022 Goal:** 211 circuit miles were scheduled for 2022.

**Key Actions:** BVES completed 211 circuit miles in Q3, fulfilling the goal of conducting infrared inspections of the entire system annually.

#### **Improvement of Inspections:**

**Key Actions:** BVES is always trying to optimize its inspections and is open to changes/adaptations leading to a better process. BVES is working on upgrading inspection documentation tool for use in the field.

## 7.3.4 - Asset Management & Inspection

Patrol inspections of distribution electric lines and equipment 7.3.4.11

Patrol Inspection Program
On Track

#### **Patrol Inspection within the Service Area**

**Volume vs Q4 2022 Goal:** BVES targeted 211 circuit miles inspected by Q3 2022. BVES was not able to complete its Q3 target but was able to achieve its annual target of 211 by conducting 255.16 circuit miles by the close of 2022.

Key Actions: BVES exceeded its goal of 211 circuit miles by conducting 255.16 circuit miles of inspection in 2022.

Pole loading assessment program to determine safety factor 7.3.4.13

Pole Loading & Replacement Program

**Ahead of Plan** 

**Pole Loading & Replacement** 

**Volume vs Q4 2022 Goal:** BVES targeted 225 pole assessments by close of Q4 2022. BVES was able to conduct 87 pole assessments in Q4 2022. BVES has conducted 381 pole assessments as of close Q4 2022.

Key Actions: BVES conducted 381 pole assessments in 2022.

Quality assurance / quality control of inspections 7.3.4.14

Quality Control of Inspections
Planned

#### **Quality Control for Electrical Inspections Program**

**Volume vs Goal:** BVES has not yet established quantitative or qualitative targets for the planned quality control program and therefore, have no quarterly units to report in the Quarterly Advice Letter.

**Key Actions:** Currently on track to discuss framework for formal controls development for internal and third-party inspection patrols.

Substation inspections 7.3.4.15

**GO-174 Substation Inspection Program** 

On Track

#### **Substations Inspected**

**Volume vs Q4 2022 Goal:** BVES targeted 144 substation inspections by close of Q4 2022. BVES was able to complete 144 substation inspections in 2022. **Key Actions:** BVES plans to conduct 36 substation inspections per quarter with an annual target of 144 substation inspections.

## 7.3.5 - Vegetation Management & Inspection

Detailed inspections and management practices for vegetation clearances around distribution electrical lines and equipment 7.3.5.2

Detailed Inspection

**Program** 

**Exceeded Target** 

#### **Detailed Inspection Activities:**

**Volume vs Q4 2022 Goal:** BVES set a target of 29 circuit miles by end of Q4. BVES plans to conduct 29 circuit miles of inspection in 2022. **Key Actions:** BVES was able to complete 32.41 circuit miles of inspection by the close of 2022 exceeding its annual target of 29 circuit miles.

Emergency Preparedness and Response Program:

**Volume vs Goal:** BVES did not record an emergency in Q4 of 2022; therefore, use of the Emergency Preparedness & Response Program was not required.

Emergency response vegetation management due to red flag warning or other urgent conditions 7.3.5.4

Emergency Preparedness & Response Program

Improvement of inspections 7.3.5.6

Quality Control of Inspections

**Improvement of Inspections:** 

**Volume vs Q4 2022 Goal:** One vegetation management audit was planned for Q4 2022. BVES was able to complete 1 vegetation management audits in Q4 2022. BVES has conducted 5 audits as of Q4 2022.

**Key Actions:** BVES plans to conduct one audit per quarter with an annual target of 4 vegetation management audits in 2022.

Identification and remediation of "at-risk species" 7.3.5.15

**Planned** 

#### Remediation of At-Risk Species:

**Key Actions:** BVES and its contractors account for at risk species when doing field work and evaluation. Cycle Breaker vegetation is are an example of what may be recorded. Remediation as a separate initiative is considered for the future with no set program/project at this time.

Remote sensing inspections of vegetation around distribution electric lines and equipment 7.3.5.7

LiDAR Inspection Program

**LiDAR Inspection Activities** 

**Volume vs 2022 Goal:** 211 circuit miles were scheduled for 2022.

**Key Actions:** BVES completed 211 circuit miles in Q3, fulfilling the goal of conducting infrared inspections of the entire system annually.

Other discretionary inspections of vegetation around distribution electric lines and equipment 7.3.5.9.1

**Third Party Ground Patrol** 

**Contracted Third Party Inspection** 

**Volume vs 2022 Goal:** 211 circuit miles were scheduled for 2022.

**Key Actions:** BVES completed 211 circuit miles in Q3, fulfilling the goal of conducting infrared inspections of the entire system annually.

Other discretionary inspections of vegetation around distribution electric lines and equipment 7.3.5.9.2

UAV HD
Photography/Video
Program

**UAV HD Photography/Video Program** 

**Volume vs 2022 Goal:** 211 circuit miles were scheduled for 2022.

**Key Actions:** BVES completed 211 circuit miles in Q3, fulfilling the goal of conducting infrared inspections of the entire system annually.

Patrol inspections of vegetation around distribution electric lines and equipment 7.3.5.11

**Patrol Inspection Program** 

**Patrol Inspection within the Service Area** 

**Volume vs Q4 2022 Goal:** BVES targeted 211 circuit miles inspected by Q3 2022. BVES was not able to complete its Q3 target but was able to achieve its annual target of 211 by conducting 255.16 circuit miles by the close of 2022.

**Key Actions:** BVES exceeded its goal of 211 circuit miles by conducting 255.16 circuit miles of inspection in 2022.

Not Started Completed/Ongoing Ahead of Plan On Track Off Track

## 7.3.5 - Vegetation Management & Inspection

Quality assurance / quality control of vegetation inspections 7.3.5.13

Quality Control of Inspections 53 QC Reviews

Recruiting and training of vegetation management personnel 7.3.5.14

Vegetation Management Program
Staffing
Met Targets

Removal and remediation of trees with strike potential to electric lines and equipment 7.3.5.16

**Enhanced Vegetation Management Program** 

Fuel management (including all wood management) and management of "slash" from vegetation management activities
7.3.5.5

**Enhanced Vegetation Management Program** 

**Contractor Meets Requirements** 

#### **Quality Control for Electrical Inspections Program**

**Volume vs Q4 2022 Goal:** BVES planned to conduct 18 quality controls reviews in Q4 2022. BVES was able to conduct 52 quality control reviews in Q4 2022.

**Key Actions:** BVES plans to conduct 18 quality control reviews per quarter with an annual target of 72 quality control reviews in 2022. BVES was able to conduct 132 reviews in 2022.

#### **Resource Allocation & Training:**

BVES has an established program in place and continues to monitor all aspects of the program for compliance. During the period Q4 of 2022, there were no compliance issues identified. **Key Actions:** BVES reviewed staffing program and methodology

#### **Mid-Year Detailed Inspection Activities**

**Volume vs Q4 2022 Goal:** BVES planned to remove/remediate 22 hazardous trees in Q4 2022. BVES was able to remove/remediate 31 hazardous trees in Q4 2022.

**Key Actions:** BVES plans to remove/remediate 88 trees in 2022. BVES removed/remediated 147 trees in 2022.

#### **Enhanced VM Program Inspection**

**Key Actions:** This is a contractor lead initiative. Following the monthly substation inspections identified vegetation concerns and their associated waste are removed by the contractor per the contract. At which point BVES is notified, and the inspection and removal is logged.

Substation inspection 7.3.5.17

GO-174 Substation Inspection Program

Inspected & Cleared Vegetation

Substation vegetation management 7.3.5.18

Substation Vegetation
Management Inspections &
Corrections

#### **Substations Inspected**

Volume vs Q4 2022 Goal: BVES targeted 144 substation inspections by close of Q4 2022. BVES was able to complete 144 substation inspections in 2022. **Key Actions:** BVES plans to conduct 36 substation inspections per quarter with an annual target of 144 substation inspections.

#### **Substation Inspection**

**Key Actions:** This is a contractor lead initiative. Following the monthly substation inspections identified vegetation concerns and their associated waste are removed by the contractor per the contract. BVES is then notified, and the inspection and removal is logged.

Vegetation management enterprise system 7.3.5.19

GIS Data Collection & Sharing
Trimmed Trees Logged

#### **GIS Data Collection & Sharing:**

**Volume vs 2022 Goals:** BVES continues to work towards a class leading Data Repository.

**Key Actions:** BVES continue to work with its contracted experts to update its GIS database as well as develop a more streamlines method for reporting and sharing of information.

Vegetation management to achieve clearances around electric lines and equipment 7.3.5.20

**Enhanced Vegetation Management Program** 

#### **Circuit Miles Cleared:**

**Volume vs Q4 2022 Goals:** BVES planned to cleared 72 circuit miles by close Q4 2022. BVES was able to clear 12.38 circuit miles in Q4 2022 bring the YTD total to 86.84. **Key Actions:** BVES plans to clear 72 circuit miles in 2022. With the 12.38 cleared in Q4 BVES has cleared 86.84 circuit miles in 2022.

## 7.3.5 - Vegetation Management & Inspection

Additional efforts to manage community and environmental impacts 7.3.5.1

Contracted Forester Service //
Environmental Impact Mitigation
Activities

**Quality Control for Electrical Inspections Program** 

**Volume vs Goal:** BVES will continue to conduct outreach with the USFS, CAL FIRE, and Big Bear Fire Department to develop collaborative measures in the area of fuels management. BVES will also exchange information with other utilities to determine best practices in this area of managing community and environmental impacts on the vegetation management program.

Vegetation Management Activities Post-Fire 7.3.5.21

Veg Management Activities Post-Fire

Vegetation Management Activities Post-Fire:
Volume vs Goal: BVES will consider example preparatory vegetation management activities performed by similar IOUs in response to a wildfire and make updates, as necessary. BVES will consult with CAL FIRE, other utilities, and vegetation contractors to develop a list of preparations that would be beneficial to have in place in the event the

service area experiences a wildfire.

## 7.3.6 - Grid Operations & Operating Protocols

Automatic Recloser Operations 7.3.6.1 **Grid Automation Program** 

Completed

#### Fault Interrupters - IntelliRupters Pulsing Auto Reclosers - Completed Cycle Work:

**Volume vs Goal:** BVES plans to install S&C's Pulse Closer Fault Interrupters across its major 34 kV system auto-reclosers that was completed in 2020. **Key Actions:** None planned for 2022.

Protective equipment and device settings 7.3.6.2

**Protective Equipment and Device Settings:** 

**Key Actions:** All protective device settings are logged and controlled by Engineering. The settings are set based on coordination studies. BVES does not use special Fast Settings for fire season.

Protective Equipment and Device Settings

Crew-Accompanying Ignition Prevention and Suppression Resources and Services 7.3.6.3

**Emergency Preparedness & Response Program** 

**No Emergency Events** 

Stationed and On-Call Ignition
Prevention and Suppression
Resources and Services
7.3.6.7
Emergency Preparedness &
Response Program

**Ongoing** 

#### **Emergency Preparedness & Response Program:**

BVES has an established program in place. BVES continues to monitor all aspects of the program for compliance. During the period Q4 of 2022, there were no emergency events that would require the use of said program.

**Key Actions:** There were no key actions related to this program in Q4 of 2022.

Personnel Work Procedures and Training in Conditions of Elevated Fire Risk 7.3.6.4

PSPS Program & Procedures
Ongoing

Protocols for PSPS Re-Energization 7.3.6.5 PSPS Program & Procedures

**Established** 

PSPS Events and Mitigation of
PSPS Impacts
7.3.6.6
PSPS Program & Procedures

**O PSPS Events** 

#### **PSPS Program & Procedure:**

BVES has an established program and procedures in place. BVES continues to monitor all aspects of the program for compliance. During the period Q4 of 2022 there were no PSPS events that would require the use of said program.

Key Actions: There were no key actions related to the Program as there were no PSPS events.

Not Started Completed/Ongoing Ahead of Plan On Track Off Track

## 7.3.9 - Emergency Planning & Preparedness

Adequate and Trained Workforce for Service Restoration 7.3.9.1 **Resource Allocation** Methodology

Completed

#### **Resource Allocation Methodology:**

BVES has an established program in place and continues to monitor all aspects of the program for compliance. During the period Q4 of 2022, there were no compliance issues identified.

**Key Actions:** Staffing for service restoration was reviewed and declared adequate. In the instance of a service restoration event BVES will review the results and re-evaluate staffing if necessary.

Community Outreach, Public Awareness, and **Communications Efforts** 7.3.9.2

**Community Outreach Program** 

**Targets Exceeded** 

#### **Community Outreach Program:**

Volume vs Q4 2022 Goal: BVES had planned to conducted at minimum 90 outreach activities. BVES recorded 250 outreach activities 278% of target for

**Key Actions:** Grizzly Newspaper advertisements are posted during the week (M-F) for either WMP or PSPS and BVES will have 1 advertisement broadcasted each month.

**Disaster and Emergency** Preparedness Plan 7.3.9.4 **Emergency Preparedness** 

& Response Program

**Established** 

**Customer Support in Emergencies** 7.3.9.3 **Emergency Preparedness** & Response Program **Established** 

**Preparedness and Planning** for Service Restoration 7.3.9.5

**Emergency Preparedness** & Response Program

**Ongoing** 

Protocols in Place to Learn from Wildfire Events 7.3.9.6 **Emergency Preparedness** & Response Program **In Progress** 

#### **Emergency Preparedness and Response Program:**

Volume vs Q4 2022 Goal: BVES did not record an emergency in Q4 of 2022. This means that the use of the Emergency Preparedness & Response Program was not required.

## 7.3.8 - Resource Allocation Methodology

Allocation Methodology Development and **Application** 7.3.8.1 **Resource Allocation** 

Methodology

**Program In Process** 

#### **Resource Allocation Methodology [Primary]:**

BVES has an established program in place and continues to monitor all aspects of the program for additional staff. During the period Q4 of 2022, there were no gap issues identified.

**Key Actions:** BVES routinely reviewed staffing program needs.

Risk Reduction Scenario **Development and Analysis** 7.3.8.2

**Ignition Probability & Wildfire Consequence Mapping Completed** 

**Contracting with Risk Mapping Resource** 

2022 Goal: During 2021 in conjunction with the contracted resource BVES completed its initial Risk Mapping. Due to a lack of historical data, the PSPS risk reduction aspect was deferred. For 2022, BVES plans to contract with Technosylva to develop real-time fire modeling capabilities.

**Key Actions:** BVES continues to evaluate the best course of action to add PSPS Risk Reduction mapping and has engaged a contractor for additional modeling support. BVES has a contract with Technosylva and is making progress on project goals.

Risk Spend Efficiency **Analysis** 7.3.8.3 **Ignition Probability & Wildfire Consequence** Mapping **In Progress** 

**Contracting with Risk Mapping Resource** 

**2022 Goal:** BVES completed its initial Risk Mapping in 2021 in conjunction with a contracted resource. Due to a lack of historical data, the PSPS risk reduction aspect was deferred. For 2022 BVES plans to evaluate the best course of action to add this tool to its Risk Assessment & Mapping program.

**Key Actions:** BVES continues to evaluate the best course of action to add PSPS Risk Reduction mapping to its Risk Assessment & Mapping program.



May 1, 2023

Via E-Mail

Bear Valley Electric Service, Inc. ("BVES or Bear Valley") hereby transmits for filing the following:

<u>SUBJECT:</u> Q1 2023 BVES Quarterly Notification to the Office Of Energy Infrastructure Safety Regarding BVES's Implementation of its Wildfire Mitigation Plan Pursuant to Public Utilities Code Section 8389(e)(7)

Pursuant to Public Utilities Code ("PUC") Section 8389(e)(7), and the February 16, 2021 Office of Energy Infrastructure Safety ("Energy Safety") Compliance Operational Protocols, Bear Valley submits to Energy Safety this notification detailing the implementation of its approved Wildfire Mitigation Plan ("WMP"), implementation of BVES's most recent safety culture assessment and the recommendations of the most recent safety culture assessment, and a statement of activities and recommendations of the BVES Safety and Operations Committee meetings that occurred during the quarter.

#### **PURPOSE**

The purpose of this notification is to comply with the requirements of Section 8389(e)(7), which were added to the Public Utilities Code by Assembly Bill (AB) 1054 on July 12, 2019, and subsequently amended by AB 148 on July 22, 2021, to reflect the transition of the Wildfire Safety Division at the California Public Utilities Commission ("CPUC") to the Office of Energy Infrastructure Safety (OEIS). Section 8389(e)(7) requires electrical corporations to file a notice of implementation of its wildfire mitigation plan with OEIS "on a quarterly basis that details the implementation of both its approved wildfire mitigation plan and recommendations of the most recent safety culture assessment, and a statement of recommendations of the board of directors safety committee meetings that occurred during the quarter." Section 8389(e)(7) also requires that the notification "summarize the implementation of safety committee recommendations from the electrical corporation's previous notification and submission." BVES is simultaneously submitting this notice to the CPUC as an information only submittal.

This notification reports BVES's 2023 first quarter ("Q1") WMP activities, recorded Safety Committee meetings, and recommendations of the most recent safety culture assessment.

This Quarterly Notification Letter ("3NL") notification is BVES's first quarterly filing for calendar year 2023 and is simultaneously submitted to the CPUC's Safety Policy Division and its Program and Project Supervisor as an information-only submittal.

#### IMPLEMENTATION OF BVES'S WILDFIRE MITIGATION PLAN

To support sustained implementation and improvement of the WMP, BVES continues to track progress through metrics on applicable initiatives in 10 categories for mitigating wildfire in addition to the quarterly data, which conform to OEIS standards. BVES's quarterly initiative summary presentation includes information submitted to the OEIS under the Quarterly Data Report ("QDR") filings for Q1 2023 prepared in accordance with OEIS Data Guidelines (Version 3.0) of December 14, 2022.

In Attachment A, BVES provides an initiative summary of progress for individual mitigation measures during Q1 2023.

#### Overview of Significant Achievements and Issues

BVES has implemented its 2023-2025 WMP and made significant progress in achieving its WMP initiative targets for 2023. As of the end of Q1 2023, some of the more significant achievements were:

- Exceeded the 2023 Q1 target to harden 250 poles along secondary evacuation routes in the Big Bear Lake area. The target was exceeded by installing fire resistant wire mesh on 500 wood poles along secondary evacuation routes. This completes BVES's 2023 effort to harden secondary evacuation route poles. BVES front loaded this effort to complete it prior to the fire season. Also, this type of work was compatible with the wintery weather that BVES experiences in Q1.
- Replaced 1.98 circuit miles of 4 KV distribution bare wire with covered conductor exceeding the planned 1.5 circuit miles for Q1.
- Conducted 36 substation inspections, meeting its target for Q1.
- Installed 35 fault indicators (FIs) in Q1, exceeding the target of 5 and meeting the annual goal in Q1. BVES front loaded this effort to reduce risk prior to fire season. Also, this type of work was compatible with the wintery weather that BVES experiences in Q1.
- Removed or remediated 32 trees that had fall-in risk exceeding the target for Q1 of 18, and putting the program ahead of its goal for Q2 as well.
- Conducted community outreach on PSPS and WMP topics by executing 153 engagements events of various types by the end of Q1, which exceeds the Q1 target of 90 engagements.
- Completed 57 circuit miles of detailed inspections (per GO-165) of distribution power lines and equipment along with inspections of vegetation around the distribution power lines exceeding the Q1 target of 55 circuit miles.
- Completed 71 circuit miles of patrol inspections (per GO-165) of distribution power lines and equipment along with inspections of vegetation around the distribution power lines exceeding the Q1 target of 52 circuit miles.

BVES had planned to complete vegetation clearance along 18 circuit miles in Q1, but only achieved vegetation clearance along 13 circuit miles. In Q1 BVES experienced significantly higher than average storm weather and snow accumulation, which

significantly hindered vegetation clearance work. Vegetation clearance could not occur safely during the storms and due to the high accumulation of snow, access to BVES's service area and to the distributions lines was severely limited. Therefore, the target was missed but BVES is confident it will make up for the missed 5 circuit miles and achieve its annual target.

In 2022, Bear Valley did not achieve its target to complete the Radford Line Replacement Project, which replaces aged wood poles with high performance fire resistant poles and installs covered conductors in the High Fire Threat District Tier 3 ("extreme fire risk"). BVES is targeting to start construction in the summer of 2023; however, this effort is contingent on the United States Forest Service ("USFS") approving the pending permit to construct the project. BVES is working closely with the USFS and has made significant progress in satisfying USFS permitting requirements. In a meeting with the District Ranger on March 27, 2023, BVES was informed that the project was #3 in priority at the USFS and #1 in the District. Based on the current status of the permit, the following provides BVES's best estimated timeline of the major permitting milestones:

- Submit revised permit application to USFS for cultural survey- Step Completed
- USFS responds with 6 additional questions, Archaeologist will answer and resubmit – Step Completed
- Receive approval from USFS to conduct cultural survey-5 weeks Step Completed
- Archaeologist will conduct cultural survey, write up report for NEPA & CEQA then sends to USFS – Step Completed
- USFS completes review of cultural report and submits to SHPO Anticipated week of 5/8/23
- SHPO completes review and accepts cultural report Anticipated week of 6/5/23
- USFS finalizes federal CE Anticipated week of 6/12/23
- USFS publishes CE for 30 day public review Anticipated week of 6/19/23
- USFS signs federal CE, NEPA process is complete Anticipated week of 7/17/23
- BVES incorporates cultural report and completes CEQA categorical exemption -Anticipated week of 6/20/23
- BVES files notice of detention with San Bernardino Co. clerk recorder **Anticipated week of 6/26/23**
- Once categorical exemption is filed with county clerk recorder there is a 30 day period for legal challenge-if no challenges-CEQA CE is final – 7/24/23

Based on this timeline, BVES anticipates commencing the project in July 2023 and completing the project by the end of October 2023.

In the interim, BVES will continue to de-energize the Radford Line when load requirements do not require its operation, generally from the end of March through November of each year. Currently, the line is de-energized. Prior to energizing the

Radford Line, BVES will patrol the line. Additionally, when the line is energized, the automatic recloser for that circuit will be placed in manual (no automatic reclosing).

# IMPLEMENTATION OF BVES'S MOST RECENT SAFETY CULTURE ASSESSMENT

In August 2022, BVES employees and contractors involved in WMP work completed the 2022 Safety Culture Assessment (SCA) surveys and BVES submitted the documents requested by Energy Safety's SCA Team for the 2022 SCA. On March 17, 2023, OEIS issued the draft report 2022 Safety Culture Assessment for BVES. The following summarizes the SCA report's recommendations:

- Refine Contractor Strategic Improvement Plan: In collaboration with BVES's contractors, BVES should review and refine its current strategic improvement plan to address gaps in overall safety culture for contractors. This plan should propose ways to improve contractor relationships with BVES supervisors and contractor empowerment to address problems in a timely fashion. This recommendation builds upon a 2021 SCA recommendation.
- Address Safety Culture Opportunities for the Design and Construction Business Unit: BVES should develop and implement a strategic improvement plan to address the workforce survey result indicating that Design and Construction employees have a less positive experience of safety culture in the wildfire mitigation work context than other employees. The survey also indicated that this unit may lack effective supervision. This is a new recommendation in response to the 2022 SCA inputs. Although BVES's 2022 workforce survey showed improvement over 2021 in the overall score and across the different statement categories, comparisons of results by business unit revealed inconsistencies in the way employees experience safety culture at BVES, especially in the results from the Design and Construction business unit. BVES should undertake measures to improve the safety culture experience of this business unit.
- Strengthen Safety-Enabling Systems: BVES should strengthen its safety-enabling systems by improving protocols for responding to near misses and hazards, including their reporting and management. This is a new recommendation in response to the 2022 SCA inputs. BVES should continue to build its "Continuous Improvement Program" described in its 2022 safety culture objectives to improve employee understanding of the importance of submitting incident reports, including near-miss reports. BVES should strengthen hazard and near-miss response, recognition, and reporting through increased worker involvement, worker training, and formal recognition of workers for reporting near misses and hazards. In particular, BVES should conduct at least one training on near-miss reporting protocols. BVES should identify and address any barriers to reporting within its safety-enabling systems (procedures, software, communication, etc.).

BVES agrees with implementing the 2022 SCA recommendations and is developing an action plan to implement them. BVES will provide additional information on its action plan in its next notification letter to OEIS.

BVES has fully implemented the all of the recommendations of its 2021 SCA (OEIS Safety Culture Assessment ("SCA") report for BVES of October 27, 2021).

#### SAFETY AND OPERATIONS COMMITTEE MEETING

On February 23, 2023, BVES's Safety and Operations Committee ("Committee") convened. At the meeting Chairmen Paul Marconi briefed the Committee on current safety items at BVES including compliance with OEIS requirements and guidelines, safety certification, safety metrics and performance, and implementation of the 2021 Safety Culture Assessment recommendations. He then briefed the Committee on the final results of 2022 WMP initiatives and targets and the risk reduction achieved. Mr. Marconi then briefed the Committee on current ignition and PSPS risk and how management had developed the initiatives and targets to be included in 2023-2025 WMP to reduce these risks. The Committee discussed management's proposed 2023-2025 WMP initiatives and targets and agreed with management's proposals. The Committee discussed the briefed items, asked questions, which Mr. Marconi addressed, and, based on the information briefed, the Committee did not see the need to alter the initiatives or provide additional direction to management.

#### NOTICE

This filing will be submitted to the Office of Energy Infrastructure Safety, the Executive Director of the California Public Utilities Commission, and posted to the BVES website at <a href="https://www.bvesinc.com/safety/wildfire-mitigation-plan">https://www.bvesinc.com/safety/wildfire-mitigation-plan</a>.

Sincerely,

#### /s/ Jeff Linam

Jeff Linam
Manager, Regulatory Affairs
Bear Valley Electric Service, Inc.
630 East Foothill Blvd.
San Dimas, California 91773
Email: Regulatory Affairs@bvesinc.com
(909) 394-3600 ext. 664

#### Attachment A

Initiative Summary of Progress for Individual Mitigation Measures during Q1 2023

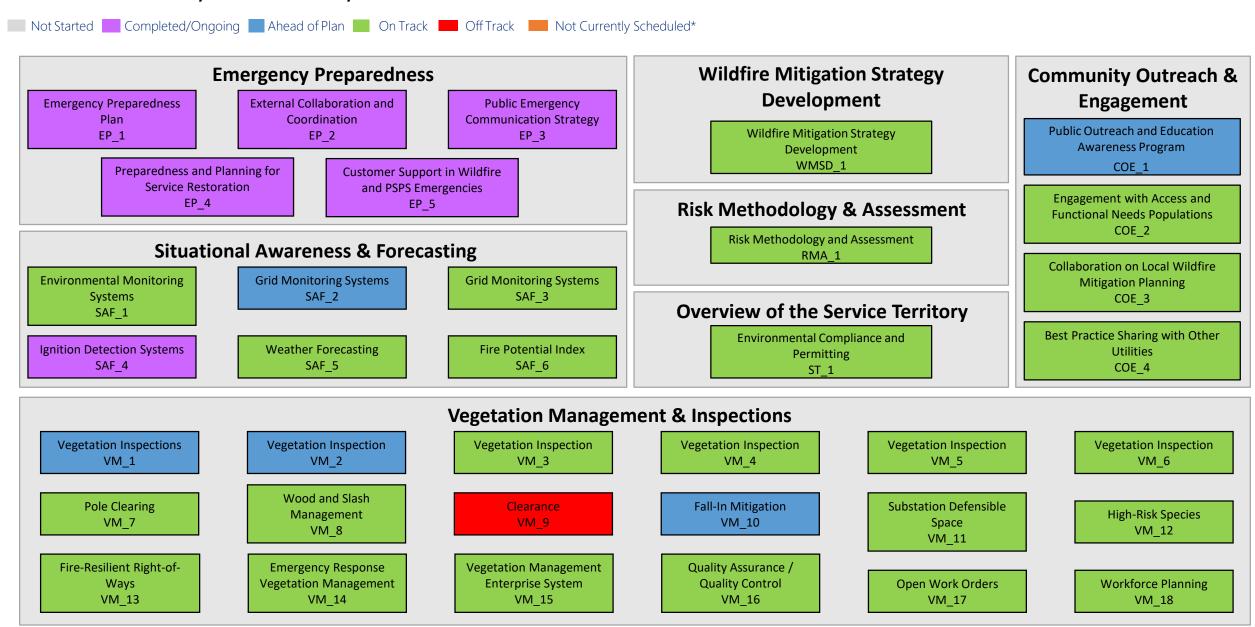
## Attachment A

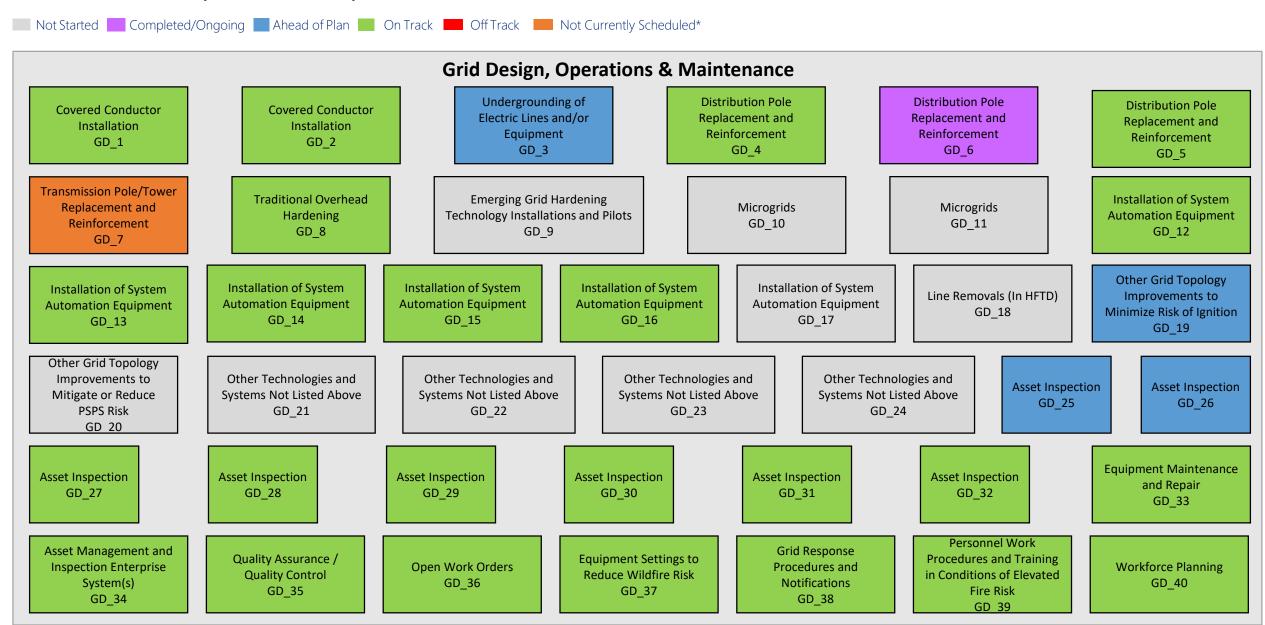
Initiative Summary of Progress for Individual Mitigation Measures during Q1 2023



# Wildfire Mitigation Plan Quarterly Notification Letter Initiatives Update

Bear Valley Electric Service, Inc.





## Risk Methodology & Assessment

Risk Methodology and Assessment RMA\_1

**Technosylva Contractor Program** 

**On Going** 

**Contracting with Risk Mapping Resource:** 

**2023 Goal:** For 2023 BVES plans to continue its work with Technosylva to maintain its real time risk mapping capabilities with accurate electrical system

inputs.

Key Actions: Regular meetings to discuss program status with Technosylva.

## Overview of the Service Territory

Environmental Compliance and Permitting ST 1

**On Going** 

**Environmental Compliance and Permitting:** 

**2023 Goal:** Environmental Compliance and Permitting is an as needed program for BVES. When new projects are launched BVES relies on its environmental consultant to confirm all permitting requirements for the projects. The consultant also verifies that all current BVES facilities have their appropriate permits.

Key Actions: Ongoing review of permitting for BVES facilities.

## Wildfire Mitigation Strategy Development

Wildfire Mitigation Strategy
Development
WMSD 1

**On Going** 

**Wildfire Mitigation Strategy Development:** 

**2023 Goal:** For 2023 BVES plans to develop and issue its WMP for approval. Following approval, the WMP will be posted to its website for public viewing.

**Key Actions:** BVES is in the final drafting stages of its WMP to be submitted to EnergySafety for approval on May 8<sup>th</sup> 2023.

## **Emergency Preparedness**

Plan
EP\_1
Established /
Ongoing

External Collaboration and
Coordination
EP\_2
Established /
Ongoing

Public Emergency
Communication Strategy
EP\_3
Established /
Ongoing

Preparedness and Planning for Service Restoration EP\_4

Established /
Ongoing

Customer Support in Wildfire and PSPS
Emergencies
EP\_5
Established /
Ongoing

**Emergency Preparedness and Response Program and PSPS Plan:** 

Volume vs 2023 Goal: BVES did not record an emergency in Q1 of 2022. This means that the use of the Emergency Preparedness & Response Program was not required. BVES continues to review the effectiveness of its PSPS Plans and its Emergency Response through internal review and desktop exercises.

## Community Outreach & Engagement

Public Outreach and Education Awareness Program

COE\_1

**Exceeded Target** 

Engagement with Access and Functional Needs Populations COE\_2

On Track

<u>Public Outreach and Education Awareness Program:</u>

**Volume vs Q1 2023 Goal:** BVES had planned to conduct at a minimum of 90 outreach activities. BVES recorded 153 outreach activities 170% of target for Q1.

**Key Actions:** Grizzly Newspaper advertisements are posted during the week (M-F) for either WMP or PSPS and BVES will have 1 advertisement broadcasted each month.

**Engagement with Access and Function Needs (AFN) Populations:** 

**Volume vs 2023 Goal:** BVES has an established program in place to identify AFN customers and provide assistance during PSPS.

**Key Actions:** BVES continues to evaluate the functionality of its AFN program as it relates to PSPS and wildfire events. BVES verified the AFN list, and associated needs twice per month for 6 verifications in Q1.

Collaboration on Local Wildfire Mitigation Planning COE\_3

On Track

**Collaboration on Local Wildfire Mitigation Planning:** 

**Volume vs 2023 Goal:** BVES plans to engage with Local Support (Fire Department & Forest Service) on a regular basis to discuss project statuses as well as general needs and gaps for the upcoming fire season

**Key Actions:** BVES established plans to engage in coordination efforts based on PSPS activations, which will include suppression agencies.

Best Practice Sharing with Other Utilities COE\_4

On Track

**Best Practice Sharing with Other Utilities:** 

**Volume vs 2023 Goal:** BVES plans to evaluate the available working groups and conferences and make determinations on which groups/conferences add the most value to their wildfire program.

**Key Actions:** BVES has begun to review available working groups and conferences. BVES was able to attend 13 different subject matter working groups in Q1.

## Grid Design, Operations & Maintenance

Covered Conductor
Installation
GD\_1
Covered Conductor
Replacement Program
Ahead of Plan

#### **Covered Conductor Replacement Program:**

**Volume vs Q1 2023 Goal:** BVES planned to complete a total of 1.5 circuit miles by the end of Q1. BVES was able to complete 1.98 circuit miles by Q1.

**Key Actions:** BVES was able to complete 1.98 circuit miles of covered conductor instillation. BVES is currently ahead of projection for 2023.

Covered Conductor
Installation
GD\_2
Radford Line
Replacement Project
On Track

#### **Radford Line Replacement Project:**

**Volume vs 2023 Goal:** BVES plans to complete the Radford Line covered conductor project in 2023. BVES plans to replace 1 circuit mile in Q3 and 1.7 circuit miles in Q4, for a total of 2.7 circuit miles replaced.

**Key Actions:** No replacements are schedule until Q3. BVES continues to discuss status with the Forest Service.

Installation of System
Automation Equipment
GD\_14
Capacitor Bank
Upgrade Project

On Track

#### **Capacitor Bank Upgrade Project:**

**Volume vs 2023 Goal:** BVES plans to connect and automate 6 Capacitor Banks to SCADA in Q4 for a total of 6 Capacitor Banks in 2023.

**Key Actions:** No Capacitor Banks automation and connections are schedule until Q4.

Installation of System
Automation Equipment
GD\_15
Fuse TripSaver
Automation

On Track

#### **Fuse TripSaver Automation:**

**Volume vs 2023 Goal:** BVES plans to connect and automate 10 Fuse TripSavers to SCADA in Q4, for a total of 10 Fuse TripSavers in 2023.

**Key Actions:** No Fuse TripSavers automation and connections are schedule until Q4.

Microgrids
GD\_10
Bear Valley Solar
Energy Project
Not Started

#### **Bear Valley Solar Energy Project:**

**Volume vs 2023 Goal:** The Bear Valley Solar Energy Project is not scheduled for construction in 2023.

**Key Actions:** BVES working to establish a Purchase & Sales Agreement with the developer and file an application with the CPUC in 2023.

Microgrids
GD\_11
Energy Storage Project
Not Started

#### **Bear Valley Energy Storage Project:**

**Volume vs 2023 Goal:** The Energy Storage Project is not scheduled for construction in 2023.

**Key Actions:** BVES working to establish a Purchase & Sales Agreement with the developer and file an application with the CPUC in 2023.

Installation of System
Automation Equipment
GD\_12
Substation Automation

On Track

#### **Substation Automation:**

**Volume vs 2023 Goal:** BVES plans to connect and automate 2 substations to SCADA in Q3 and 1 substation in Q4, for a total of 3 substations in 2023.

**Key Actions:** No substation automation and connections are schedule until O3.

Installation of System
Automation Equipment
GD\_13
Switch and Field Device
Automation
On Track

#### **Switch and Field Device Automation:**

**Volume vs 2023 Goal:** BVES plans to connect and automate 6 Field Switches to SCADA in Q3 and 7 Field Switches in Q4, for a total of 13 Field Switches in 2023.

**Key Actions:** No Field Switches automation and connections are schedule until Q3.

## Grid Design, Operations & Maintenance

Installation of System
Automation Equipment
GD\_16
Server Room

**Server Room:** 

**Volume vs 2023 Goal:** BVES plans to install a Server Room at its main office in 2023.

**Key Actions:** The project is on schedule for completion in 2023.

On Track

Installation of System

Installation of System
Automation Equipment
GD\_17
Distribution

Management Center
Not Started

Line Removals (In HFTD) GD\_18

No Planned Projects

Other Grid Topology Improvements to Minimize Risk of Ignition GD\_19 Tree Attachment

Removal Program

Ahead of Plan

Other Grid Topology Improvements to Mitigate or Reduce PSPS Risk GD\_20

Captured Through Other Programs

**Distribution Management Center:** 

**Volume vs 2023 Goal:** The Distribution Management Center Project is not scheduled for 2023.

**Key Actions:** No construction action will be taken on this program in 2023. BVES will perform project planning in 2023.

**Line Removals (In HFTD):** 

**Volume vs 2023 Goal:** BVES does not have any planned line removals in HFTD in 2023.

**Key Actions:** N/A.

**Covered Conductor Replacement Program:** 

**Volume vs Q1 2023 Goal:** BVES planned to complete zero tree attachment removals in Q1. BVES was able to complete 2 tree attachments removals by the end of Q1. BVES plans to remove 100 tree attachment removals in 2023. **Key Actions:** BVES was able to complete 2 tree attachment removals. BVES is currently ahead of projection for 2023.

Other Grid Topology Improvements to Mitigate or Reduce PSPS Risk:

**Volume vs Goal:** The objectives of this initiative are achieved through BVES's installation of system automation equipment initiatives.

**Key Actions:** N/A.

Other Technologies and Systems Not Listed Above GD\_21

BVPP Phase 4 Upgrade Project

**Not Started** 

**Safety and Technical Upgrades to Maltby Substation:** 

Key Actions: No construction action will be taken on this

program in 2023. BVES will perform project planning in 2023.

**BVPP Phase 4 Upgrade Project:** 

scheduled for 2023.

**Volume vs 2023 Goal:** The Safety and Technical Upgrades to Maltby Substation is not scheduled for 2023.

Volume vs 2023 Goal: The BVPP Phase 4 Upgrade Project is not

**Key Actions:** No action will be taken on this program in 2023. BVES will perform project planning in 2023.

Other Technologies and Systems Not Listed Above GD\_22 Safety and Technical Upgrades to Maltby Substation

**Not Started** 

Other Technologies and Systems Not Listed Above GD 23

Safety and Technical Upgrades to Lake Substation

**Not Started** 

**Safety and Technical Upgrades to Lake Substation:** 

**Volume vs 2023 Goal:** The Safety and Technical Upgrades to Lake Substation is not scheduled for 2023.

**Key Actions:** No action will be taken on this program in 2023. BVES will perform project planning in 2023.

Other Technologies and Systems Not Listed Above GD\_24

Safety and Technical Upgrades to Village Substation

**Not Started** 

<u>Safety and Technical Upgrades to Village Substation:</u>

**Volume vs 2023 Goal:** The Safety and Technical Upgrades to Village Substation is not scheduled for 2023.

**Key Actions:** No action will be taken on this program in 2023. BVES will perform project planning in 2023.

## Grid Design, Operations & Maintenance

**Asset Inspection** GD 25 **Detailed Inspection Ahead of Plan** 

#### **Detailed Inspection:**

Volume vs Q1 2023 Goal: BVES planned to complete a total of 55 circuit miles of inspection by the end of Q1. BVES was able to complete 57 circuit miles by Q1.

**Key Actions:** BVES was able to complete 57 circuit miles of inspection. BVES is currently ahead of projection for 2023.

Asset Inspection GD 26 **Patrol Inspection Ahead of Plan** 

#### **Patrol Inspection:**

Volume vs Q1 2023 Goal: BVES planned to complete a total of 52 circuit miles of inspection by the end of Q1. BVES was able to complete 71 circuit miles by Q1.

Key Actions: BVES was able to complete 71 circuit miles of inspection. BVES is currently ahead of projection for 2023.

**Asset Inspection** GD 27 **UAV Thermography** On Track

#### **UAV Thermography:**

Volume vs 2023 Goal: BVES plans to conduct 206.7 circuit miles of inspection in Q3. BVES annual target is 206.7 circuit miles in 2023

**Key Actions:** No circuit miles were inspected in Q1.

Asset Inspection GD 28 **UAV HD Photography /** Videography On Track

#### **UAV HD Photography / Videography:**

Volume vs 2023 Goal: BVES plans to conduct 206.7 circuit miles of inspection in Q3. BVES annual target is 206.7 circuit miles in 2023

**Key Actions:** No circuit miles were inspected in Q1.

**Asset Inspection** GD 29 **LiDAR Inspection** On Track

#### **LiDAR Inspection:**

Volume vs 2023 Goal: BVES plans to conduct 206.7 circuit miles of inspection in Q3. BVES annual target is 206.7 circuit miles in 2023

**Key Actions:** No circuit miles were inspected in Q1.

Undergrounding of Electric Lines and/or Equipment GD 3 **Minor Undergrounding Upgrades Projects Ahead of Plan** 

#### **Minor Undergrounding Upgrades Projects:**

Volume vs 2023 Goal: BVES conducts undergrounding on an as needed basis. There were no proposed or initiated undergrounding projects in Q1.

**Key Actions:** No undergrounding projects were proposed or initiated in Q1

Asset Inspection GD 30 3<sup>rd</sup> Party Ground Patrol On Track

#### **3rd Party Ground Patrol:**

**Volume vs 2023 Goal:** BVES plans to conduct 206.7 circuit miles of inspection in Q3. BVES annual target is 206.7 circuit miles in 2023

**Key Actions:** No circuit miles were inspected in Q1.

**Asset Inspection** GD 31 **Intrusive Pole** Inspection On Track

#### **Intrusive Pole Inspection:**

**Volume vs 2023 Goal:** BVES plans to conduct 850 poles intrusively inspected in Q3. BVES annual target is 850 poles intrusively inspected in 2023

**Key Actions:** No poles were inspected in Q1.

Asset Inspection GD 32 **Substation Inspections** On Track

#### **Substation Inspections:**

Volume vs Q1 2023 Goal: BVES planned to complete 36 substation inspections in Q1. BVES was able to complete 36 substation inspections in Q1

**Key Actions:** BVES was able to complete 36 substation inspections. BVES is currently on track for its target in 2023

and Repair GD 33

#### **Equipment Maintenance and Repair:**

Volume vs 2023 Goal: This is an as needed program for BVES and covers all maintenance of equipment in BVES service territory.

**Key Actions:** BVES performed as needed maintenance throughout the first quarter of 2023.

**Equipment Maintenance** 

On Track

Not Started Completed Ahead of Plan On Track Off Track

## Grid Design, Operations & Maintenance

Asset Management and **Inspection Enterprise** System(s) GD 34 Distribution **Management Center** 

#### **Asset Management and Inspection Enterprise System(s):**

Volume vs 2023 Goal: The Asset Management and Inspection Enterprise System is an ongoing activity for BVES. Currently its systems are standalone but due to BVES's size this is not a major concern.

**Key Actions:** BVES continue to evaluate the need for automate and master systems as it relates to asset management and inspection.

Quality Assurance / **Quality Control** GD 35 **Asset Quality** 

**Assurance / Quality** Control

On Track

Open Work Orders

GD 36

**Asset Open Work** 

#### **Asset Open Work Orders:**

Volume vs 2023 Goal: For 2023 BVES has a goal to have no

Key Actions: BVES did not have any work orders that exceeded

Orders On Track

**Equipment Settings to** Reduce Wildfire Risk

> GD 37 On Track

**Grid Response** Procedures and Notifications GD 38

On Track

## **Asset Quality Assurance / Quality Control:**

Volume vs Q1 2023 Goal: BVES planned to complete a total of 5 asset QC's on WMP work by the end of Q1. BVES was able to complete 5 QC's by Q1.

**Key Actions:** BVES was able to complete 5 asset QC's. BVES is currently on track for 2023.

work orders exceeding the GO 95 timeframe.

the GO 95 timeframe in O1.

#### **Equipment Settings to Reduce Wildfire Risk:**

Volume vs 2023 Goal: For 2023 BVES plans to review its equipment settings on a regular basis and evaluate the need for modified settings.

**Key Actions:** BVES reviewed the equipment settings in Q1.

#### **Grid Response Procedures and Notifications:**

Volume vs 2023 Goal: For 2023 BVES plans to review and if necessary, update its procedure. This will be an annual process **Key Actions:** BVES began to review its procedure in Q1.

Personnel Work **Procedures and Training** in Conditions of Elevated Fire Risk GD 39

#### On Track

Distribution Pole Replacement and Reinforcement GD 4 **Distribution Pole** Replacement and Reinforcement On Track

Workforce Planning GD 40 **Asset Workforce Planning** On Track

Distribution Pole Replacement and Reinforcement GD 5 Radford Line **Replacement Project** 

On Track

#### Personnel Work Procedures and Training in Conditions of **Elevated Fire Risk:**

Volume vs 2023 Goal: For 2023 BVES plans to review and if necessary, update its procedure. This will be an annual process. BVES will also verify the training of all responsible staff members. Key Actions: BVES began to review its procedure in Q1.

#### **Distribution Pole Replacement and Reinforcement:**

Volume vs 2023 Goal: BVES planned to complete a total of 25 pole replacements in Q1. BVES was able to complete 58 total pole replacements.

**Key Actions:** BVES was able to complete 58 pole replacements in Q1, placing the program 32 poles ahead of schedule.

#### **Asset Workforce Planning:**

Volume vs 2023 Goal: For 2023 BVES has a goal to verify that the wildfire related positions are appropriately staffed. This review is conducted quarterly

**Key Actions:** BVES reviewed and verified that the appropriate staffing levels exist for wildfire related positions.

#### **Distribution Pole Replacement and Reinforcement** (Radford Line Replacement Project):

Volume vs 2023 Goal: BVES planned to replace 0 poles in Q1. The program target for Radford Line Replacement Project pole replacement is 70 by the end of 2023

**Key Actions:** BVES scheduled zero pole replacements in Q1. The pole replacement schedule for Radford is contingent on the US Forest Service permitting process.

Not Started Completed Ahead of Plan On Track Off Track

## Grid Design, Operations & Maintenance

Distribution Pole
Replacement and
Reinforcement
GD\_6
Evacuation Route
Hardening Project
Complete

**Asset Quality Assurance / Quality Control:** 

**Volume vs Q1 2023 Goal:** BVES planned to complete a total of 250 poles hardened with Wire Mesh in Q1. BVES was able to complete 500 poles hardened with Wire Mesh Q1.

**Key Actions:** BVES was able to complete 500 poles hardened with Wire Mesh. BVES has completed its target for 2023.

Transmission Pole/Tower
Replacement and
Reinforcement
GD\_7
Not Applicable

<u>Transmission Pole/Tower Replacement and Reinforcement:</u>
Volume vs 2023 Goal: BVES does not own or operate any

transmission assets. **Key Actions:** N/A.

Traditional Overhead
Hardening
GD\_8
On Track

**Traditional Overhead Hardening:** 

**Volume vs 2023 Goal:** This is an as needed program for BVES. There is a budget allocation for the year based on history but no specifically tracked tasks. Overhead hardening work is performed as needed in response to inspection findings and emergent conditions.

**Key Actions:** BVES conducted as needed maintenance throughout Q1.

Emerging Grid Hardening Technology Installations and Pilots GD\_9

**Not Started** 

**Emerging Grid Hardening Technology Installations and Pilots:** 

**Volume vs 2023 Goal:** Currently no projects in the initiative. BVES will discuss opportunities with partner utilities on the effectiveness of such technologies.

**Key Actions:** No project activity is planned for 2023 in this area.

## Situational Awareness & Forecasting

Environmental
Monitoring Systems
SAF\_1
Advanced Weather
Monitoring and
Weather Stations
On Track

#### **Advanced Weather Monitoring and Weather Stations:**

**Volume vs 2023 Goal:** BVES completed the installation of all planned Weather Stations in 2022. This program has transitioned to maintaining normal operation of said equipment. **Key Actions:** BVES determined all the maintenance needs of the weather equipment were met in Q1.

Ignition Detection
Systems
SAF\_4
HD ALERTWildfire
Cameras
Complete

**HD ALERTWildfire Cameras:** 

**Volume vs 2023 Goal:** BVES completed the installation of all planned HD ALERTWildfire Cameras in 2022. BVES provides O&M support as requested by USCD (HD ALERTWildfire Camera owner).

**Key Actions:** All cameras are in operation providing complete and overlapping coverage of the BVES service territory.

Grid Monitoring Systems
SAF\_2
Fault Indicator
Instillation

**Ahead of Plan** 

#### **Fault Indicator Instillation:**

**Volume vs Q1 2023 Goal:** BVES planned to complete a total of 5 fault indicator installations by the end of Q1. BVES was able to complete 35 installations by Q1.

**Key Actions:** BVES was able to complete 35 fault indicator installations. BVES is currently ahead of plan for 2023.

Weather Forecasting SAF\_5
On Track

#### **Weather Forecasting:**

**Volume vs 2023 Goal:** BVES employs a weather consultant and uses Technoslyva's WFA-E application as its modeling software for wildfire spread potential based off current weather conditions. **Key Actions:** This is an ongoing effort that continued throughout O1

Grid Monitoring Systems
SAF\_3
Online Diagnostic
System
On Track

#### **Online Diagnostic System:**

**Volume vs 2023 Goal:** BVES plans to install online diagnostic capabilities on 1 circuit in 2023, and that will occur in Q4. **Key Actions:** No online diagnostic capability installation are schedule until Q4.

Fire Potential Index
SAF\_6
On Track

#### **Fire Potential Index:**

**Volume vs 2023 Goal:** BVES is currently using NFDRS for its FPI but is transitioning to have Technosylva develop a BVES specific FPI

**Key Actions:** BVES is worked with Technosylva to develop a scope of work for the FPI development project.

## Vegetation Management & Inspection

**Vegetation Inspections** VM 1 **Detailed Inspection Ahead of Plan** 

#### **Detailed Inspection:**

Volume vs Q1 2023 Goal: BVES planned to complete a total of 55 circuit miles of inspection by the end of Q1. BVES was able to complete 57 circuit miles by Q1.

**Key Actions:** BVES was able to complete 57 circuit miles of inspection. BVES is currently ahead of projection for 2023.

**Vegetation Inspection** VM 2 **Patrol Inspection Ahead of Plan** 

#### **Patrol Inspection:**

Volume vs Q1 2023 Goal: BVES planned to complete a total of 52 circuit miles of inspection by the end of Q1. BVES was able to complete 71 circuit miles by Q1.

Key Actions: BVES was able to complete 71 circuit miles of inspection. BVES is currently ahead of projection for 2023.

**Vegetation Inspection** VM 3 **UAV HD Photography /** Videography On Track

#### **UAV HD Photography / Videography:**

Volume vs 2023 Goal: BVES plans to conduct 206.7 circuit miles of inspection in Q3. BVES annual target is 206.7 circuit miles in 2023.

**Key Actions:** No circuit miles were inspected in Q1.

**Vegetation Inspection** VM 4 **LiDAR Inspection** On Track

#### **LiDAR Inspection:**

Volume vs 2023 Goal: BVES plans to conduct 206.7 circuit miles of inspection in Q3. BVES annual target is 206.7 circuit miles in 2023.

**Key Actions:** No circuit miles were inspected in Q1.

**Vegetation Inspection** VM 5 **3<sup>rd</sup> Party Ground Patrol** On Track

#### **3rd Party Ground Patrol:**

Volume vs 2023 Goal: BVES plans to conduct 206.7 circuit miles of inspection in Q3. BVES annual target is 206.7 circuit miles in

**Key Actions:** No circuit miles were inspected in Q1.

**Vegetation Inspection** VM 6 **Substation Inspections** On Track

#### **Substation Inspections:**

Volume vs Q1 2023 Goal: BVES planned to complete 36 substation inspections in Q1. BVES was able to complete 36 substation inspections in Q1.

**Key Actions:** BVES was able to complete 36 substation inspections. BVES is currently on track for its target in 2023.

Pole Clearing VM 7 On Track

#### **Pole Clearing:**

Volume vs 2023 Goal: BVES has an established pole clearing program. Throughout the year BVES reviews the procedure and updates it if the need arises.

**Key Actions:** BVES continues to evaluate where pole clearing is necessary and takes action.

Wood and Slash Management VM 8

On Track

Clearance VM 9 Off Track

#### **Wood and Slash Management:**

Volume vs 2023 Goal: BVES contracts its vegetation clearing to a 3<sup>rd</sup> party contractor. The contractor is responsible for meeting the waste removal requirements.

**Key Actions:** BVES verified that the contractor adhered to the waste removal requirements outlined in the contract.

#### **Vegetation Clearance:**

Volume vs Q1 2023 Goal: BVES planned to complete 18 circuit mils of clearing in Q1. BVES was able to complete 13 circuit miles in Q1

Key Actions: BVES was able to complete 13 circuit miles. In Q1 BVES experienced significantly higher than average storm weather and snow accumulation, which significantly hindered vegetation clearance work. BVES is confident it will achieve it will make up the missed 5 circuit miles and achieve its annual target.

**Fall-In Mitigation:** 

Volume vs Q1 2023 Goal: BVES planned to complete 18 tree remediation's or removal's to prevent fall-in in Q1. BVES was able to complete 32 tree remediation's or removal's in Q1.

**Key Actions:** BVES was able to complete 32 remediation's or removals. BVES is currently ahead of plan for its target in 2023.

Fall-In Mitigation VM 10

**Ahead of Plan** 

Not Started Completed Ahead of Plan On Track Off Track

## Vegetation Management & Inspection

Substation Defensible Space VM 11 On Track

**Substation Defensible Space:** 

Volume vs Q1 2023 Goal: BVES's contracted vegetation resource conducts regular clearing to verify compliance with the GO requirements. BVES's Substation Inspection program verifies compliance.

Key Actions: BVES was able to complete 36 substation inspections and had zero planned abetments for Q1 of 2023.

High-Risk Species VM 12 On Track

**High-Risk Species:** 

Volume vs 2023 Goal: BVES conducts as needed remediation of high-risk species in its service territory. There are no specific program targets for 2023.

**Key Actions:** BVES will take action as inspection findings and VM crews identify high-risk specifies throughout 2023.

Fire-Resilient Right-of-Ways VM 13 On Track

**Fire-Resilient Right-of-Ways:** 

Volume vs 2023 Goal: BVES's contracted vegetation resource (forester) conducts regular inspections to verify compliance with requirements and to seek opportunities to make right of ways more resilient.

**Key Actions:** BVES will take action vegetation resource's recommendations in this area.

**Emergency Response Vegetation Management** VM 14

**Emergency Response Vegetation Management:** 

Volume vs 2023 Goal: BVES's contracted vegetation contractor's crews are contractually available on an as needed basis for disaster or emergency event vegetation management.

Key Actions: BVES mobilize and dispatch VM crews as needed in 2023.

On Track

**Vegetation Management** 

**Enterprise System** 

VM 15

On Track

**Vegetation Management Enterprise System:** 

Volume vs 2023 Goal: The Vegetation Management Enterprise System is an ongoing activity for BVES. Currently its systems are standalone but due to

**Key Actions:** BVES continue to evaluate the need for automated and master

BVES's size this is not a major concern.

systems as it relates to vegetation management.

Quality Assurance / **Quality Control** VM 16 Vegetation **Management Quality Assurance / Quality** Control On Track

**Vegetation Management Quality Assurance / Quality Control:** 

Volume vs Q1 2023 Goal: BVES planned to complete 2 vegetation management audits by the end of Q1 (annual audit and quarterly audit). BVES was able to complete the 2 audits by

**Key Actions:** BVES was able to complete the 2 audits. BVES is currently on track complete its audits per its schedule for 2023.

Open Work Orders VM 17 Vegetation **Management Open Work Orders** On Track

**Vegetation Management Open Work Orders:** 

Volume vs 2023 Goal: For 2023 BVES has a goal to have no work orders exceeding the GO 95 Rule 18 corrective action timeframe.

**Key Actions:** BVES did not have any work orders that exceeded the GO 95 timeframe in Q1.

Workforce Planning VM 18 Vegetation Management **Workforce Planning** On Track

**Vegetation Management Workforce Planning:** 

Volume vs 2023 Goal: For 2023 BVES has a goal to verify that the wildfire related positions are appropriately staffed. This review is conducted quarterly

**Key Actions:** BVES reviewed and verified that the appropriate staffing levels exist for wildfire related positions.



August 1, 2023

Via E-Mail

Bear Valley Electric Service, Inc. ("BVES or Bear Valley") hereby transmits for filing the following:

<u>SUBJECT:</u> Q2 2023 BVES Quarterly Notification to the Office Of Energy Infrastructure Safety Regarding BVES's Implementation of its Wildfire Mitigation Plan Pursuant to Public Utilities Code Section 8389(e)(7)

Pursuant to Public Utilities Code ("PUC") Section 8389(e)(7), and the February 16, 2021 Office of Energy Infrastructure Safety ("Energy Safety") Compliance Operational Protocols, Bear Valley submits to Energy Safety this notification detailing the implementation of its approved Wildfire Mitigation Plan ("WMP"), implementation of BVES's most recent safety culture assessment and the recommendations of the most recent safety culture assessment, and a statement of activities and recommendations of the BVES Safety and Operations Committee meetings that occurred during the quarter.

#### **PURPOSE**

The purpose of this notification is to comply with the requirements of Section 8389(e)(7), which were added to the Public Utilities Code by Assembly Bill (AB) 1054 on July 12, 2019, and subsequently amended by AB 148 on July 22, 2021, to reflect the transition of the Wildfire Safety Division at the California Public Utilities Commission ("CPUC") to the Office of Energy Infrastructure Safety ("Energy Safety"). Section 8389(e)(7) requires electrical corporations to file a notice of implementation of its wildfire mitigation plan with Energy Safety "on a quarterly basis that details the implementation of both its approved wildfire mitigation plan and recommendations of the most recent safety culture assessment, and a statement of recommendations of the board of directors safety committee meetings that occurred during the quarter." Section 8389(e)(7) also requires that the notification "summarize the implementation of safety committee recommendations from the electrical corporation's previous notification and submission." BVES is simultaneously submitting this notice to the CPUC as an information only submittal.

This Quarterly Notification Letter ("QNL") notification is BVES's second quarterly filing for calendar year 2023 and is simultaneously submitted to the CPUC's Safety Policy Division and its Program and Project Supervisor as an information-only submittal. This notification reports BVES's 2023 second quarter ("Q2") WMP activities, recorded Safety Committee meetings, and recommendations of the most recent safety culture assessment.

#### IMPLEMENTATION OF BVES'S WILDFIRE MITIGATION PLAN

To support sustained implementation and improvement of the WMP, BVES continues to track progress through metrics on applicable initiatives in 8 categories for mitigating wildfire in addition to the quarterly data, which conform to Energy Safety standards. BVES's quarterly initiative summary presentation includes information submitted to the Energy Safety under the Quarterly Data Report ("QDR") filings for Q2 2023 prepared in accordance with OEIS Data Guidelines (Version 3.0) of December 14, 2022.

In Attachment A, BVES provides an initiative summary of progress for individual mitigation measures during Q2 2023.

#### **Overview of Significant Achievements and Issues**

BVES made significant progress in achieving its WMP initiative targets for 2023.

As of the end of Q2 2023, some of the more significant achievements were:

- Exceeded the 2023 Q2 target to harden 300 poles along the main evacuation routes to the Big Bear Lake area. The target was achieved by installing fire resistant wire mesh on the 796 poles. This completes and exceeds BVES's effort to have 500 poles hardened by the end of 2023. BVES front loaded this effort to ensure it was completed prior to the fire season.
- Replaced 232 poles by the end of Q2. This exceeds the goal of 80 for Q2 and exceeds the annual target of 200 for 2023.
- Replaced 9.64 circuit miles of 4 KV distribution bare wire with covered conductor exceeding the planned 1 circuit mile for Q2.
- Conducted 39 substation inspections, exceeding its target for Q2.
- A total of 81 tree attachments were removed as part of The Tree Attachment Removal Program in Q2. This exceeds the quarterly target of zero.
- Removed 39 trees that had fall-in risk exceeding the target for Q2 of 8, and putting the program ahead of its goal for Q3 as well.
- Community engagement on PSPS and WMP totaled 357 engagements of various types by the end of Q2, which exceeds the end of Q2 target of 180 engagements. Additionally, the stakeholder and community briefs were conducted March 1, 2023 and June 29, 2023 on WMP initiatives and PSPS process.
- BVES completed a PSPS tabletop exercise on April 13, 2023 and a functional exercise on June 12, 2023.
- By the end of Q2 2023, BVES completed 89 of a targeted 88 circuit miles of detailed inspections of distribution electric lines and equipment along with inspecting vegetation around distribution electric lines. In addition, 109 of a targeted 105 miles of patrol inspections were completed.
- BVES also completed LiDAR and UAV (HD photography and thermography) surveys in Q2 2023 and is awaiting the full findings report. No Level 1 findings were noted.

Bear Valley did not meet or exceed its target for the Radford Line Replacement Project to replace poles with fire resistant poles and install covered conductors. Construction work on the Radford Line Replacement Project, which replaces bare wire with covered conductor and wood poles with fire resistant poles in the High Fire Threat District Tier 3, is delayed at least until September 2023 (previously BVES planned to start construction in June 2022). The delay is due to the United States Forest Service ("USFS") not approving BVES's permit to construct in time to start and complete construction before the winter weather season in 2022. BVES is working closely with the USFS and has made significant progress in satisfying USFS permitting requirements. BVES believes it is on track to obtain the permit according to the following updated timeline of major permitting milestones:

- Submit revised permit application to USFS for cultural survey- Step Completed
- USFS responds with 6 additional questions, Archaeologist will answer and resubmit – Step Completed
- Receive approval from USFS to conduct cultural survey-5 weeks Step Completed
- Archaeologist will conduct cultural survey, write up report for NEPA & CEQA then sends to USFS – Step Completed
- USFS accepts cultural report and submits to San Manual Indian tribes for review **Submitted 7/14/23**
- USFS submits the cultural report to SHPO for review Anticipated week of 7/31/23
- SHPO completes review and accepts cultural report Anticipated week of 8/21/23
- USFS finalizes federal CE Anticipated week of 8/21/23
- BVES consultant incorporates the approved cultural report and completes State CEQA categorical exemption and submits to BVES for Review – Anticipated week of 8/21/23
- BVES reviews State categorical exemption and submits any comments/changes to BVES consultant - Anticipated week of 8/28/23
- USFS signs CE, NEPA process complete Anticipated week of 8/28/23
- BVES approves State categorical exemption and brings in front of the board Anticipated week of 8/28/23
- BVES consultant files notice of detention with San Bernardino Co. clerk recorder the day after BVES board approves categorical exemption – Anticipated week of 8/28/23
- Once State categorical exemption is filed with county clerk recorder there is a 30 day period for legal challenge-if no challenges-CEQA CE is final Anticipated week of 9/26/23

Based on this timeline, BVES anticipates commencing the project in September 2023 and completing it by December 2023.

In the interim, BVES will continue to de-energize the Radford Line when load requirements do not require its operation, generally from the end of March through November of each year. Prior to energizing the Radford Line, BVES will patrol the line. Additionally, when the line is energized, the recloser for that circuit will be placed in manual (no automatic reclosing).

## IMPLEMENTATION OF BVES'S MOST RECENT SAFETY CULTURE ASSESSMENT

In August 2022, BVES employees and contractors involved in WMP work completed the 2022 Safety Culture Assessment (SCA) surveys and BVES submitted the documents requested by Energy Safety's SCA Team for the 2022 SCA. On March 17, 2023, Energy Safety issued the draft report 2022 Safety Culture Assessment for BVES. The following summarizes the SCA report's recommendations:

- Refine Contractor Strategic Improvement Plan: In collaboration with BVES's
  contractors, Energy Safety finds BVES should review and refine its current strategic
  improvement plan to address gaps in overall safety culture for contractors. This plan
  should propose ways to improve contractor relationships with BVES supervisors
  and contractor empowerment to address problems in a timely fashion. This
  recommendation builds upon a 2021 SCA recommendation.
- In response to this recommendation, BVES is:
  - Refining its strategic improvement plan to address gaps in overall safety culture for contractors.
  - Working with contractors to understand why they have lowered their opinion about safety culture and implement specific measures to address their concerns.
  - o Implementing formal contractor safety program that includes improvements to onboard, train, and otherwise engage contractors in its strategic plan.
  - Conducting briefings to contractors' workers on the importance of their work in increasing public safety and mitigating wildfire.
  - Engaging BVES supervisors to listen to, support, and empower contractors.
- Address Safety Culture Opportunities for the Design and Construction Business Unit: Energy Safety stated BVES should develop and implement a strategic improvement plan to address the workforce survey result indicating that Design and Construction employees have a less positive experience of safety culture in the wildfire mitigation work context than other employees. The survey also indicated that this unit may lack effective supervision. This is a new recommendation in response to the 2022 SCA inputs. Although BVES's 2022 workforce survey showed improvement over 2021 in the overall score and across the different statement categories, comparisons of results by business unit revealed inconsistencies in the way employees experience safety culture at BVES, especially in the results from the Design and Construction business unit. BVES should undertake measures to improve the safety culture experience of this business unit.

- In response to this recommendation, BVES is:
  - Conducting one-on-one meetings between the BVES President and Design & Construction employees to further gage their safety culture views and refine plan to improve their safety culture. These sessions are designed to be open two-way conversations and to solicit employee inputs and perceptions on safety culture at BVES.
  - Ensuring that the concerns indicated on the surveys by Design & Construction employees are being addressed by senior management & supervisors.
  - Reinforcing the elements that promote improved safety culture and safety related communications.
- Strengthen Safety-Enabling Systems: Energy Safety indicates BVES should strengthen its safety-enabling systems by improving protocols for responding to near misses and hazards, including their reporting and management. This is a new recommendation in response to the 2022 SCA inputs. BVES should continue to build its "Continuous Improvement Program" described in its 2022 safety culture objectives to improve employee understanding of the importance of submitting incident reports, including near-miss reports. BVES should strengthen hazard and near-miss response, recognition, and reporting through increased worker involvement, worker training, and formal recognition of workers for reporting near misses and hazards. In particular, BVES should conduct at least one training on near-miss reporting protocols. BVES should identify and address any barriers to reporting within its safety-enabling systems (procedures, software, communication, etc.).
- In response to this recommendation, BVES is:
  - Conducting companywide training on "near miss" and "hazard" reporting led by senior management including clear definitions and instructions on recognizing each event type.
  - Ensuring that employees understand that senior management to encourages "near miss" and "hazard" reporting by directly engaging supervisors & rewarding employees that make meaningful "near miss" reports.
  - Documenting and tracking the number of safety event reports submitted by employees on a monthly basis as well as the quality of the reports.
  - Having management assess the quality of the near miss and hazard reports, noting any trends identified, and identifying actions taken to improve safety based on the reports.
- Implement use of specific leading indicators: Energy Safety notes BVES should further develop and implement the use of specific leading indicators to improve safety and health outcomes in connection with its 12-month goal to establish, collect, and publish a set of safety metrics, including leading indicators, to evaluate safety. This is a new recommendation in response to the 2022 SCA inputs. Leading

indicators can play a vital role in preventing worker fatalities, injuries, and illnesses and strengthening other safety and health outcomes in the workplace. Leading indicators can also be used to design proactive, preventive measures. They can shed light on issues with the effectiveness of safety and health activities and reveal potential problems in a safety and health management system. BVES should prioritize tracking leading indicator safety performance metrics and identify specific leading indicators to provide insights into potential interventions. Some metrics to add might include the number of employees BVES trains in near-miss reporting, how many and which kinds of remediation it undertakes in response to hazard reports, and the number of employee-led hazard solutions it implements.

- In response to this recommendation, BVES is:
  - Tracking the following leading indicators: safety training completion rate, number of pre-job briefs (tailboards), number of Job Hazard Analyses (JHAs) performed, number of Vegetation Management Quality Checks performed, number of WMP work Quality Checks performed, number of near misses, and number of contractor-BVES meetings on safety items.
  - Including a discussion of leading indicators at monthly employee-management safety committee meetings.
  - o Including leading indicators on monthly safety dashboard email to employees.
  - Having supervisors review and discuss leading indicators with employees.

As indicated above, BVES agrees with implementing the 2022 SCA recommendations and has developed and initiated an action plan to implement them.

BVES has fully implemented the all of the recommendations of its 2021 SCA Energy Safety Safety Culture Assessment ("SCA") report for BVES of October 27, 2021).

In July 2023, BVES employees and contractors involved in WMP work completed the 2023 Safety Culture Assessment (SCA) surveys and BVES submitted the documents requested by Energy Safety's SCA Team for the 2023 SCA.

#### SAFETY AND OPERATIONS COMMITTEE MEETING

On June 8, 2023, BVES' Safety and Operations Committee ("Committee") convened. Chairmen Paul Marconi briefed the Committee on current safety items at BVES including Wildfire Mitigation Plan (WMP) compliance and safety certification, safety metrics and performance, and Safety Culture Assessment. He then briefed the Committee on the status of 2023-2025 WMP initiatives and targets achieved in Q1. Chairman Marconi explained the targets that were off track and management's plan to get back on track. He then provided the Committee an update on risk modeling used by BVES to evaluate the need for PSPS on a daily (or more frequent basis). The Committee discussed the briefed items, asked questions, which Mr. Marconi addressed, and, based on the information briefed, the Committee did not see the need to alter the initiatives or provide additional direction to management.

Chairman Marconi then briefed the Board on the 2022 Safety Culture Assessment (SCA) by Energy Safety Division. Prior to the meeting, each Committee member had been provided a copy of the 2022 SCA. Chairman Marconi discussed how the survey was conducted and reviewed the results of the survey. He briefed the Committee on areas that showed a strong safety culture and areas that indicated opportunities for improvement. The Committee discussed at length the lower scores that the contractor employees had when compared to BVES employees and various ways to improve contractor safety culture. The Committee also focused on the lower survey scores that the Design and Construction Business Unit employees had on the survey. The Committee agreed with Management's recommendation to improve the Design and Construction Business Unit employees' safety culture but at a more accelerated pace of implementation. Management agreed with the Committee. The Committee also discussed the recommendations regarding strengthening safety-enabling systems (near miss and hazard reporting) and tracking leading indicators. The Committee agreed with Management's decision to implement the recommendations from the 2022 SCA report.

#### **NOTICE**

This filing will be submitted to the Office of Energy Infrastructure Safety, the Executive Director of the California Public Utilities Commission, and posted to the BVES website at <a href="https://www.bvesinc.com/safety/wildfire-mitigation-plan">https://www.bvesinc.com/safety/wildfire-mitigation-plan</a>.

Sincerely,

Jeff Linam Manager, Regulatory Affairs Golden State Water Company 630 East Foothill Blvd. San Dimas, California 91773 Email: Regulatory Affairs@bvesinc.com (909) 394-3600 ext. 664

#### Attachment A

Initiative Summary of Progress for Individual Mitigation Measures during Q2 2023



# Wildfire Mitigation Plan Quarterly Notification Letter Initiatives Update

Bear Valley Electric Service, Inc.

## WMP Activity Summary

Fire-Resilient Right-of-Ways

VM\_13

Vegetation Management

VM 14

Not Started Completed/Ongoing Ahead of Plan On Track Off Track Not Currently Scheduled\* **Wildfire Mitigation Strategy Emergency Preparedness Community Outreach & Development Engagement Emergency Preparedness Plan** External Collaboration and **Public Emergency** Emergency Preparedness Plan Coordination **Communication Strategy** External Collaboration and EP 1 Public Emergency Communication Public Outreach and Education Awareness Program Wildfire Mitigation Strategy Development Coordination Strategy Wildfire Mitigation Strategy Development Public outreach and education awareness program EP\_2 EP\_3 WMSD 1 COE 1 **Preparedness and Planning for Service Restoration Customer Support in Wildfire and PSPS Emergencies** Preparedness and Planning for Service Restoration **Engagement with Access and Functional Needs** Customer Support in Wildfire and PSPS Emergencies **Populations Risk Methodology & Assessment** EP 4 EP 5 **Engagement with Access and Functional Needs Populations Risk Methodology and Assessment** COE 2 **Situational Awareness & Forecasting** Technosylva Contractor RMA 1 **Grid Monitoring Systems Grid Monitoring Systems Environmental Monitoring Systems Collaboration on Local Wildfire Mitigation Planning** Install Fault Indicators Online Diagnostic System Advanced weather monitoring and Collaboration on Local Wildfire Mitigation Planning SAF 2 SAF\_3 weather stations COE 3 **Overview of the Service Territory** SAF 1 **Environmental Compliance and Permitting Best Practice Sharing with Other Utilities Ignition Detection Systems Weather Forecasting Fire Potential Index Environmental Compliance and Permitting** Best Practice Sharing with Other Utilities **HD ALERTWildfire Cameras** Weather Forecasting Fire Potential Index ST 1 COE 4 SAF 4 SAF 5 SAF 6 **Vegetation Management & Inspections Vegetation Inspections Vegetation Inspection Vegetation Inspection Vegetation Inspection Vegetation Inspection Vegetation Inspection Detailed Inspections** Patrol Inspections UAV HD Photography/Videography LiDAR Inspection 3rd Party Ground Patrol Substation inspections VM 1 VM 2 VM 3 VM 4 VM 5 VM 6 **Wood and Slash Management** Clearance **Fall-In Mitigation High-Risk Species Pole Clearing Substation Defensible Space** Wood and Slash Management Clearance Fall-In Mitigation High-Risk Species Pole Clearing VM 8 VM 9 Substation Defensible Space VM 10 VM 12 VM\_7 VM 11 **Emergency Response Vegetation Management Quality Assurance / Quality Control Workforce Planning** Vegetation Management **Enterprise System** Fire-Resilient Right-of-Ways Emergency Response Vegetation Management **Vegetation Management Quality Open Work Orders** Vegetation Management

Assurance / Quality Control

VM 16

Open Work Orders

VM 17

Workforce Planning

VM\_18

Enterprise System

VM 15

# WMP Activity Summary

Not Started Completed/Ongoing Ahead of Plan On Track Off Track Not Currently Scheduled\*

#### **Covered Conductor Installation**

Covered Conductor Replacement Project GD 1

**Transmission Pole/Tower** Replacement and Reinforcement N/A GD 7

Installation of System **Automation Equipment** 

Switch and Field Device Automation GD 13

Other Grid Topology Improvements to Mitigate or Reduce PSPS Risk

Other Grid Topology Improvements to Mitigate or Reduce PSPS Events GD\_20

> **Asset Inspection UAV Thermography** GD\_27

**Asset Management and Inspection Enterprise** System(s)

Asset Management and Inspection Enterprise System(s) **GD 34** 

#### **Covered Conductor Installation**

Radford Line Replacement Project GD 2

Traditional Overhead Hardening Traditional Overhead Hardening GD 8

#### **Installation of System** Installation of System **Automation Equipment** Fuse TripSaver Automation

**Automation Equipment** Capacitor Bank Upgrade Project GD 14

#### Other Technologies and Systems **Not Listed Above**

BVPP Phase 4 Upgrade Project GD 21

> **Asset Inspection** UAV HD Photography/Videography

> > GD 28

Quality Assurance / Quality Control

> Asset Quality Assurance / Quality Control GD\_35

## **Undergrounding of Electric**

Lines and/or Equipment Minor Undergrounding **Upgrades Projects** GD 3

#### **Emerging Grid Hardening Technology Installations and Pilots**

Emerging Grid Hardening Technology Installations and Pilots GD 9

GD 15

Other Technologies and Systems

**Not Listed Above** 

Partial Safety and Technical

Upgrades to Maltby Substation

GD 22

Asset Inspection

LiDAR Inspection

GD 29

**Open Work Orders** 

Asset Open Work Orders

GD\_36

#### Installation of System **Automation Equipment**

**Grid Design, Operations & Maintenance** 

Server Room GD 16

## Other Technologies and Systems

**Distribution Pole Replacement** 

and Reinforcement

**Covered Conductor** 

Replacement Project

GD 4

Microgrids

Bear Valley Solar Energy Project

GD 10

Safety and Technical Upgrades to Lake Substation

## **Not Listed Above**

GD 23

#### Asset Inspection

3rd Party Ground Patrol GD 30

#### **Equipment Settings to Reduce** Wildfire Risk

Equipment Settings to Reduce Wildfire Risk GD 37

Installation of System

**Automation Equipment** 

Distribution Management

Center

GD 17

Other Technologies and Systems

**Not Listed Above** 

Partial Safety and Technical

Upgrades to Village Substation

GD 24

Asset Inspection Intrusive Pole Inspections GD 31

#### **Grid Response Procedures and Notifications**

Grid Response Procedures and **Notifications** GD 38

#### **Distribution Pole Replacement** and Reinforcement

**Evacuation Route Hardening** Project GD 6

#### Microgrids

Energy Storage Project GD 11

## Line Removals (In

Line Removals (in HFTD) GD\_18

## **Asset Inspection**

**Detailed Inspections** GD 25

## GD 26

#### Asset Inspection

Substation Inspections GD 32

#### **Personnel Work Procedures** and Training in Conditions of **Elevated Fire Risk**

Personnel Work Procedures and Training in Conditions of Elevated Fire Risk GD\_39

#### and Reinforcement Radford Line Replacement Project GD 5

**Distribution Pole Replacement** 

# **Installation of System**

#### **Automation Equipment Substation Automation** GD\_12

#### **Other Grid Topology** Improvements to Minimize **Risk of Ignition**

Tree Attachment Removal Project GD 19

#### Asset Inspection

**Patrol Inspections** 

#### **Equipment Maintenance** and Repair **Equipment Maintenance**

and Repair GD 33

#### **Workforce Planning**

Asset Workforce Planning GD 40

(\*) Not Currently Scheduled – BVES included this Status Icon to indicate where an initiative is not currently identified for this WMP cycle, or, that it is not applicable (BVES does not own or operate assets equal to or greater than 65kV).

## **Emergency Preparedness**

Emergency Preparedness
Plan
EP\_1
Established /
Ongoing

External Collaboration and
Coordination
EP\_2
Established /
Ongoing

Public Emergency
Communication Strategy
EP\_3
Established /
Ongoing

Preparedness and Planning for Service Restoration EP\_4 Established / Ongoing Customer Support in Wildfire and PSPS Emergencies EP\_5

Established / Ongoing

**Emergency Preparedness and Response Program and PSPS Plan:** 

Volume vs 2023 Goal: BVES did not record an emergency in Q2 of 2022. This means that the use of the Emergency Preparedness & Response Program was not required. BVES continues to review the effectiveness of its PSPS Plans and its Emergency Response through internal review and desktop exercises.

## Community Outreach & Engagement

Public Outreach and Education Awareness Program

COE\_1

**Exceeded Target** 

Public Outreach and Education Awareness Program:

**Volume vs Q2 2023 Goal:** BVES had planned to conduct at a minimum of 180 outreach activities. BVES recorded 357 outreach activities 198% of target for Q2.

**Key Actions:** Grizzly Newspaper advertisements are posted during the week (M-F) for either WMP or PSPS and BVES will have 1 advertisement broadcasted each month.

Engagement with Access and Functional Needs Populations COE\_2

On Track

**Engagement with Access and Function Needs (AFN) Populations:** 

**Volume vs 2023 Goal:** BVES has an established program in place to identify AFN customers and provide assistance during PSPS.

**Key Actions:** BVES continues to evaluate the functionality of its AFN program as it relates to PSPS and wildfire events. BVES verified the AFN list, and associated needs twice per month for 6 additional verifications in O2.

Collaboration on Local Wildfire
Mitigation Planning
COE\_3

On Track

**Collaboration on Local Wildfire Mitigation Planning:** 

**Volume vs 2023 Goal:** BVES plans to engage with Local Support (Fire Department & Forest Service) on a regular basis to discuss project statuses as well as general needs and gaps for the upcoming fire season

**Key Actions:** BVES established plans to engage in coordination efforts based on PSPS activations, which will include suppression agencies.

Best Practice Sharing with Other Utilities COE\_4

On Track

**Best Practice Sharing with Other Utilities:** 

**Volume vs 2023 Goal:** BVES plans to evaluate the available working groups and conferences and make determinations on which groups/conferences add the most value to their wildfire program.

**Key Actions:** BVES has begun to review available working groups and conferences. BVES was able to attend 24 working groups in Q1 and an additional 29 in Q2.

## Situational Awareness & Forecasting

Environmental
Monitoring Systems
SAF\_1
Advanced Weather
Monitoring and
Weather Stations
On Track

#### **Advanced Weather Monitoring and Weather Stations:**

**Volume vs 2023 Goal:** BVES completed the installation of all planned Weather Stations in 2022. This program has transitioned to maintaining normal operation of said equipment. **Key Actions:** BVES determined all the maintenance needs of the weather equipment were met in Q2.

Ignition Detection
Systems
SAF\_4
HD ALERTWildfire
Cameras
Complete

**HD ALERTWildfire Cameras:** 

**Volume vs 2023 Goal:** BVES completed the installation of all planned HD ALERTWildfire Cameras in 2022. BVES provides O&M support as requested by USCD (HD ALERTWildfire Camera owner).

**Key Actions:** All cameras are in operation providing complete and overlapping coverage of the BVES service territory.

Grid Monitoring Systems
SAF\_2
Fault Indicator
Instillation

**Ahead of Plan** 

#### **Fault Indicator Instillation:**

**Volume vs Q2 2023 Goal:** BVES planned to complete a total of 10 fault indicator installations by the end of Q2. BVES was able to complete 35 installations in Q1 with no additional installs in Q2. **Key Actions:** BVES was able to complete 35 fault indicator installations. BVES is currently ahead of plan for 2023.

Weather Forecasting SAF\_5
On Track

Weather Forecasting:

**Volume vs 2023 Goal:** BVES employs a weather consultant and uses Technoslyva's WFA-E application as its modeling software for wildfire spread potential based off current weather conditions. **Key Actions:** This is an ongoing effort that continued throughout O2.

Grid Monitoring Systems
SAF\_3
Online Diagnostic
System
On Track

#### **Online Diagnostic System:**

**Volume vs 2023 Goal:** BVES plans to install online diagnostic capabilities on 1 circuit in 2023, and that will occur in Q4. **Key Actions:** No online diagnostic capability installation are schedule until Q4.

Fire Potential Index
SAF\_6
On Track

#### **Fire Potential Index:**

**Volume vs 2023 Goal:** BVES is currently using NFDRS for its FPI but is transitioning to have Technosylva develop a BVES specific FPI

**Key Actions:** BVES is worked with Technosylva to develop a scope of work for the FPI development project.

## Risk Methodology & Assessment

Risk Methodology and Assessment RMA\_1

**Technosylva Contractor Program** 

**On Going** 

**Contracting with Risk Mapping Resource:** 

**2023 Goal:** For 2023 BVES plans to continue its work with Technosylva to maintain its real time risk mapping capabilities with accurate electrical system

inputs.

Key Actions: Regular meetings to discuss program status with Technosylva.

## Overview of the Service Territory✓

Environmental Compliance and Permitting ST 1

**On Going** 

**Environmental Compliance and Permitting:** 

**2023 Goal:** Environmental Compliance and Permitting is an as needed program for BVES. When new projects are launched BVES relies on its environmental consultant to confirm all permitting requirements for the projects. The consultant also verifies that all current BVES facilities have their appropriate permits.

Key Actions: Ongoing review of permitting for BVES facilities.

## Wildfire Mitigation Strategy Development ✓

Wildfire Mitigation Strategy
Development
WMSD 1

**On Going** 

**Wildfire Mitigation Strategy Development:** 

**2023 Goal:** For 2023 BVES plans to develop and issue its WMP for approval. Following approval, the WMP will be posted to its website for public viewing.

**Key Actions:** BVES submitted its WMP to EnergySafety for review and approval on May 8<sup>th</sup> 2023.

## Vegetation Management & Inspection

Vegetation Inspections
VM\_1
Detailed Inspection
On Track

#### **Detailed Inspection:**

**Volume vs Q2 2023 Goal:** BVES planned to complete a total of 88 circuit miles of inspection by the end of Q2. BVES was able to complete 89 circuit miles by Q2.

**Key Actions:** BVES was able to complete 89 circuit miles of inspection. BVES is currently on track for 2023.

Vegetation Inspection VM\_2
Patrol Inspection
On Track

#### **Patrol Inspection:**

**Volume vs Q2 2023 Goal:** BVES planned to complete a total of 105 circuit miles of inspection by the end of Q2. BVES was able to complete 109 circuit miles by Q2.

**Key Actions:** BVES was able to complete 109 circuit miles of inspection. BVES is currently on track for 2023.

Vegetation Inspection
VM\_3
UAV HD Photography /
Videography
On Track

#### **UAV HD Photography / Videography:**

**Volume vs 2023 Goal:** BVES plans to conduct 206.7 circuit miles of inspection in Q3. BVES annual target is 206.7 circuit miles in 2023.

Key Actions: No circuit miles were inspected in Q2.

Vegetation Inspection VM\_4
LiDAR Inspection
On Track

#### **LiDAR Inspection:**

**Volume vs 2023 Goal:** BVES plans to conduct 206.7 circuit miles of inspection in Q3. BVES annual target is 206.7 circuit miles in 2023.

**Key Actions:** No circuit miles were inspected in Q2.

Vegetation Inspection
VM\_5
3<sup>rd</sup> Party Ground Patrol
On Track

#### **3rd Party Ground Patrol:**

**Volume vs 2023 Goal:** BVES plans to conduct 206.7 circuit miles of inspection in Q3. BVES annual target is 206.7 circuit miles in 2023.

Key Actions: No circuit miles were inspected in Q2.

Vegetation Inspection
VM\_6
Substation Inspections
On Track

#### **Substation Inspections:**

**Volume vs Q2 2023 Goal:** BVES planned to complete 72 substation inspections by the end of Q2. BVES was able to complete 78 substation inspections through Q2.

**Key Actions:** BVES was able to complete 78 substation inspections through Q2. BVES is currently on track for its target in 2023.

Pole Clearing VM\_7
On Track

#### **Pole Clearing:**

**Volume vs 2023 Goal:** BVES has an established pole clearing program. Throughout the year BVES reviews the procedure and updates it if the need arises.

**Key Actions:** BVES continues to evaluate where pole clearing is necessary and takes action.

Wood and Slash Management VM\_8

On Track

Clearance VM\_9 Off Track

#### **Wood and Slash Management:**

**Volume vs 2023 Goal:** BVES contracts its vegetation clearing to a 3<sup>rd</sup> party contractor. The contractor is responsible for meeting the waste removal requirements.

**Key Actions:** BVES verified that the contractor adhered to the waste removal requirements outlined in the contract.

1

#### **Vegetation Clearance:**

**Volume vs Q2 2023 Goal:** BVES planned to complete 36 circuit miles of clearing by Q2. BVES was able to complete 34 circuit miles through Q2.

**Key Actions:** BVES was able to complete 19 circuit miles in Q2 for a total of 34, lessening the gap caused by weather in Q1 but remaining short of the overall target for Q2. BVES will be on track in Q3.

Fall-In Mitigation VM\_10

**Ahead of Plan** 

#### **Fall-In Mitigation:**

**Volume vs Q2 2023 Goal:** BVES planned to complete 8 tree remediations or removals to prevent fall-in in Q2 for a total of 26. BVES was able to complete 39 tree remediations or removals in Q2 for a total of 71.

**Key Actions:** BVES was able to complete 39 remediation's or removals. BVES is currently ahead of plan for its target in 2023.

## Vegetation Management & Inspection

**Substation Defensible** Space VM 11 On Track

#### **Substation Defensible Space:**

Volume vs Q2 2023 Goal: BVES's contracted vegetation resource conducts regular clearing to verify compliance with the GO requirements. BVES's Substation Inspection program verifies compliance.

Key Actions: BVES was able to complete 39 substation inspections and 9 abatements for Q2 of 2023. BVES is currently on track to complete its target for 2023.

**High-Risk Species** VM 12 On Track

#### **High-Risk Species:**

Volume vs 2023 Goal: BVES conducts as needed remediation of high-risk species in its service territory. There are no specific program targets for 2023.

**Key Actions:** BVES will take action as inspection findings and VM crews identify high-risk specifies throughout 2023.

Fire-Resilient Right-of-Ways VM 13 On Track

#### **Fire-Resilient Right-of-Ways:**

Volume vs 2023 Goal: BVES's contracted vegetation resource (forester) conducts regular inspections to verify compliance with requirements and to seek opportunities to make right of ways more resilient.

Kev Actions: BVES will take action on vegetation resource's recommendations in this area.

**Emergency Response Vegetation Management** VM 14 On Track

#### **Emergency Response Vegetation Management:**

Volume vs 2023 Goal: BVES's contracted vegetation contractor's crews are contractually available on an as needed basis for disaster or emergency event vegetation management. Key Actions: BVES will mobilize and dispatch VM crews as

**Vegetation Management Enterprise System** VM 15

On Track

## **Vegetation Management Enterprise System:**

Volume vs 2023 Goal: The Vegetation Management Enterprise System is an ongoing activity for BVES. Currently its systems are standalone but due to BVES's size this is not a major concern. **Key Actions:** BVES continue to evaluate the need for automated and master systems as it relates to vegetation management.

Quality Assurance / **Quality Control** VM 16 Vegetation **Management Quality Assurance / Quality** Control On Track

Open Work Orders VM 17 Vegetation **Management Open Work Orders** On Track

Workforce Planning VM 18 Vegetation Management **Workforce Planning** 

On Track

**Vegetation Management Quality Assurance / Quality Control:** 

Volume vs Q2 2023 Goal: BVES planned to complete 3 vegetation management audits by the end of Q2 (quarterly audit). BVES was able to complete the 3 audits by the close of

Key Actions: BVES was able to complete the 1 audits in Q2 with a YTD total of 3 vegetation management audits in 2023. BVES is currently on track to complete its audits per the schedule for

**Vegetation Management Open Work Orders:** 

Volume vs 2023 Goal: For 2023 BVES has a goal to have no work orders exceeding the GO 95 Rule 18 corrective action timeframe.

**Key Actions:** BVES did not have any work orders that exceeded the GO 95 timeframe in O2.

**Vegetation Management Workforce Planning:** Volume vs 2023 Goal: For 2023 BVES has a goal to verify that the wildfire related positions are appropriately staffed. This review is conducted quarterly.

**Key Actions:** BVES reviewed and verified that the appropriate staffing levels exist for wildfire related positions.

Not Started Completed Ahead of Plan On Track Off Track

needed in 2023.

## Grid Design, Operations & Maintenance

Covered Conductor
Installation
GD\_1
Covered Conductor
Replacement Program
Ahead of Plan

#### **Covered Conductor Replacement Program:**

**Volume vs Q2 2023 Goal:** BVES planned to complete a total of 2.5 circuit miles by the end of Q2. BVES was able to complete 11.62 circuit miles by Q2.

**Key Actions:** BVES was able to complete 9.64 circuit miles of covered conductor instillation in Q2. BVES is currently ahead of projection for 2023 with 11.62 miles completed.

Covered Conductor
Installation
GD\_2
Radford Line
Replacement Project
On Track

#### **Radford Line Replacement Project:**

**Volume vs 2023 Goal:** BVES plans to complete the Radford Line covered conductor project in 2023. BVES plans to replace 1 circuit mile in Q3 and 1.7 circuit miles in Q4, for a total of 2.7 circuit miles replaced.

**Key Actions:** No replacements are schedule until Q3. BVES continues to discuss status with the Forest Service.

Installation of System Automation Equipment GD\_14 Capacitor Bank

Upgrade Project
On Track

#### **Capacitor Bank Upgrade Project:**

**Volume vs 2023 Goal:** BVES plans to connect and automate 6 Capacitor Banks to SCADA in Q4 for a total of 6 Capacitor Banks in 2023.

**Key Actions:** No Capacitor Banks automation and connections are schedule until Q4.

Installation of System
Automation Equipment
GD\_15
Fuse TripSaver
Automation

On Track

#### **Fuse TripSaver Automation:**

**Volume vs 2023 Goal:** BVES plans to connect and automate 10 Fuse TripSavers to SCADA in Q4, for a total of 10 Fuse TripSavers in 2023.

**Key Actions:** No Fuse TripSavers automation and connections are schedule until Q4.

Microgrids
GD\_10
Bear Valley Solar
Energy Project
Not Started

**Bear Valley Solar Energy Project:** 

**Volume vs 2023 Goal:** The Bear Valley Solar Energy Project is not scheduled for construction in 2023.

**Key Actions:** BVES working to establish a Purchase & Sales Agreement with the developer and file an application with the CPUC in 2023.

Microgrids
GD\_11
Energy Storage Project
Not Started

#### **Bear Valley Energy Storage Project:**

**Volume vs 2023 Goal:** The Energy Storage Project is not scheduled for construction in 2023.

**Key Actions:** BVES working to establish a Purchase & Sales Agreement with the developer and file an application with the CPUC in 2023.

Installation of System Automation Equipment GD\_12 Substation Automation

On Track

#### **Substation Automation:**

**Volume vs 2023 Goal:** BVES plans to connect and automate 2 substations to SCADA in Q3 and 1 substation in Q4, for a total of 3 substations in 2023.

**Key Actions:** No substation automation and connections are schedule until O3.

Installation of System
Automation Equipment
GD\_13
Switch and Field Device
Automation
On Track

#### **Switch and Field Device Automation:**

**Volume vs 2023 Goal:** BVES plans to connect and automate 6 Field Switches to SCADA in Q3 and 7 Field Switches in Q4, for a total of 13 Field Switches in 2023.

**Key Actions:** No Field Switches automation and connections are schedule until Q3.

## Grid Design, Operations & Maintenance

Installation of System
Automation Equipment
GD\_16
Server Room

**Server Room:** 

**Volume vs 2023 Goal:** BVES plans to install a Server Room at its main office in 2023.

**Key Actions:** The project is on schedule for completion in 2023.

Installation of System Automation Equipment GD\_17

On Track

Distribution Management Center

**Not Started** 

Line Removals (In HFTD) GD\_18

No Planned Projects

Other Grid Topology Improvements to Minimize Risk of Ignition GD\_19

Tree Attachment Removal Program Ahead of Plan

Other Grid Topology Improvements to Mitigate or Reduce PSPS Risk GD\_20

Captured Through Other Programs

**Distribution Management Center:** 

**Volume vs 2023 Goal:** The Distribution Management Center Project is not scheduled for 2023.

**Key Actions:** No construction action will be taken on this program in 2023. BVES will perform project planning in 2023.

Line Removals (In HFTD):

**Volume vs 2023 Goal:** BVES does not have any planned line removals in HFTD in 2023.

**Key Actions:** N/A.

**Covered Conductor Replacement Program:** 

**Volume vs Q2 2023 Goal:** BVES planned to complete zero tree attachment removals in Q2. BVES was able to complete 81 tree attachments removals in Q2. BVES plans to remove 100 tree attachment removals in 2023.

**Key Actions:** BVES was able to complete 81 tree attachment removals in Q2 with a YTD total of 83 removals. BVES is currently ahead of projection for 2023.

Other Grid Topology Improvements to Mitigate or Reduce PSPS Risk:

**Volume vs Goal:** The objectives of this initiative are achieved through BVES's installation of system automation equipment initiatives.

**Key Actions:** N/A.

Other Technologies and Systems Not Listed Above GD\_21

BVPP Phase 4 Upgrade Project

**Not Started** 

**BVPP Phase 4 Upgrade Project:** 

**Volume vs 2023 Goal:** The BVPP Phase 4 Upgrade Project is not scheduled for 2023.

**Key Actions:** No construction action will be taken on this program in 2023. BVES will perform project planning in 2023.

Other Technologies and Systems Not Listed Above GD\_22

Safety and Technical Upgrades to Maltby Substation

**Not Started** 

**Safety and Technical Upgrades to Maltby Substation:** 

**Volume vs 2023 Goal:** The Safety and Technical Upgrades to Maltby Substation is not scheduled for 2023.

**Key Actions:** No action will be taken on this program in 2023. BVES will perform project planning in 2023.

Other Technologies and Systems Not Listed Above GD 23

Safety and Technical Upgrades to Lake Substation

**Not Started** 

**Safety and Technical Upgrades to Lake Substation:** 

**Volume vs 2023 Goal:** The Safety and Technical Upgrades to Lake Substation is not scheduled for 2023.

**Key Actions:** No action will be taken on this program in 2023. BVES will perform project planning in 2023.

Other Technologies and Systems Not Listed Above GD\_24

Safety and Technical Upgrades to Village Substation

**Not Started** 

**Safety and Technical Upgrades to Village Substation:** 

**Volume vs 2023 Goal:** The Safety and Technical Upgrades to Village Substation is not scheduled for 2023.

**Key Actions:** No action will be taken on this program in 2023. BVES will perform project planning in 2023.

## Grid Design, Operations & Maintenance

Asset Inspection
GD\_25
Detailed Inspection
On Track

#### **Detailed Inspection:**

**Volume vs Q2 2023 Goal:** BVES planned to complete a total of 88 circuit miles of inspection by the end of Q2. BVES was able to complete 89 circuit miles by the end of Q2.

**Key Actions:** BVES was able to complete 32 circuit miles of inspection with a YTD total of 89 circuit miles of inspection.

Asset Inspection
GD\_26
Patrol Inspection
On Track

#### **Patrol Inspection:**

**Volume vs Q2 2023 Goal:** BVES planned to complete a total of 105 circuit miles of inspection by the end of Q2. BVES was able to complete 109 circuit miles by the end of Q2.

**Key Actions:** BVES was able to complete 38 circuit miles of inspection with a YTD total of 109 circuit miles of inspection.

Asset Inspection
GD\_27
UAV Thermography
On Track

#### **UAV Thermography:**

**Volume vs 2023 Goal:** BVES plans to conduct 206.7 circuit miles of inspection in Q3. BVES annual target is 206.7 circuit miles in 2023

Key Actions: No circuit miles were inspected in Q2.

Asset Inspection
GD\_28
UAV HD Photography /
Videography
On Track

#### **UAV HD Photography / Videography:**

**Volume vs 2023 Goal:** BVES plans to conduct 206.7 circuit miles of inspection in Q3. BVES annual target is 206.7 circuit miles in 2023

**Key Actions:** No circuit miles were inspected in Q2.

Asset Inspection
GD\_29
LiDAR Inspection
On Track

#### **LiDAR Inspection:**

**Volume vs 2023 Goal:** BVES plans to conduct 206.7 circuit miles of inspection in Q3. BVES annual target is 206.7 circuit miles in 2023

**Key Actions:** No circuit miles were inspected in Q2.

Undergrounding of
Electric Lines and/or
Equipment
GD\_3
Minor Undergrounding
Upgrades Projects
Ahead of Plan

#### **Minor Undergrounding Upgrades Projects:**

**Volume vs 2023 Goal:** BVES conducts undergrounding on an as needed basis. There were no proposed or initiated undergrounding projects in Q2.

**Key Actions:** No undergrounding projects were proposed or initiated in Q2

Asset Inspection
GD\_30
3rd Party Ground Patrol
On Track

#### 3<sup>rd</sup> Party Ground Patrol:

**Volume vs 2023 Goal:** BVES plans to conduct 206.7 circuit miles of inspection in Q3. BVES annual target is 206.7 circuit miles in 2023

**Key Actions:** No circuit miles were inspected in Q2.

Asset Inspection
GD\_31
Intrusive Pole
Inspection
On Track

#### **Intrusive Pole Inspection:**

**Volume vs 2023 Goal:** BVES plans to conduct 850 poles intrusively inspected in Q3. BVES annual target is 850 poles intrusively inspected in 2023

**Key Actions:** BVES was able to complete 848 intrusive inspections in Q2. BVES is currently ahead of schedule.

Asset Inspection
GD\_32
Substation Inspections
On Track

#### **Substation Inspections:**

**Volume vs Q2 2023 Goal:** BVES planned to complete 36 substation inspections in Q2. BVES was able to complete 39 substation inspections in Q2.

**Key Actions:** BVES was able to complete 39 substation inspections with a YTD total of 78 substation inspections. BVES is currently on track for its target in 2023.

Equipment Maintenance and Repair GD\_33 On Track

#### **Equipment Maintenance and Repair:**

**Volume vs 2023 Goal:** This is an as needed program for BVES and covers all maintenance of equipment in BVES service territory.

**Key Actions:** BVES performed as needed maintenance throughout the first quarter of 2023.

## Grid Design, Operations & Maintenance

Asset Management and Inspection Enterprise System(s) GD\_34 Distribution Management Center

#### **Asset Management and Inspection Enterprise System(s):**

**Volume vs 2023 Goal:** The Asset Management and Inspection Enterprise System is an ongoing activity for BVES. Currently its systems are standalone but due to BVES's size this is not a major concern.

**Key Actions:** BVES continue to evaluate the need for automate and master systems as it relates to asset management and inspection.

Quality Assurance / Quality Control GD\_35

Asset Quality
Assurance / Quality
Control

**On Track** 

Open Work Orders GD\_36

Asset Open Work Orders

On Track

Equipment Settings to Reduce Wildfire Risk GD 37

On Track

Grid Response Procedures and Notifications GD\_38

On Track

**Asset Quality Assurance / Quality Control:** 

**Volume vs Q2 2023 Goal:** BVES planned to complete a total of 10 asset QC's on WMP work by the end of Q2. BVES was able to complete 10 QC's by the end of Q2.

**Key Actions:** BVES was able to complete 5 asset QC's in Q2 with a YTD total of 10 QC's in 2023. BVES is currently on track for 2023.

#### **Asset Open Work Orders:**

**Volume vs 2023 Goal:** For 2023 BVES has a goal to have no work orders exceeding the GO 95 timeframe.

**Key Actions:** BVES did not have any work orders that exceeded the GO 95 timeframe in Q2.

#### **Equipment Settings to Reduce Wildfire Risk:**

**Volume vs 2023 Goal:** For 2023 BVES plans to review its equipment settings on a regular basis and evaluate the need for modified settings.

**Key Actions:** BVES reviewed the equipment settings in Q2.

#### **Grid Response Procedures and Notifications:**

**Volume vs 2023 Goal:** For 2023 BVES plans to review and if necessary, update its procedure. This will be an annual process **Key Actions:** BVES began to review its procedure in Q2.

Personnel Work
Procedures and Training
in Conditions of Elevated
Fire Risk
GD\_39

On Track

Distribution Pole
Replacement and
Reinforcement
GD\_4
Distribution Pole
Replacement and
Reinforcement
On Track

Workforce Planning GD\_40

Asset Volum

Asset Workforce Planning

On Track

Personnel Work Procedures and Training in Conditions of Elevated Fire Risk:

Volume vs 2023 Goal: For 2023 BVES plans to review and if

necessary, update its procedure. This will be an annual process.

BVES will also verify the training of all responsible staff members. **Key Actions:** BVES began to review its procedure in Q2.

#### **Distribution Pole Replacement and Reinforcement:**

**Volume vs 2023 Goal:** BVES planned to complete a total of 55 pole replacements in Q2. BVES was able to complete 174 pole replacements in Q2.

**Key Actions:** BVES was able to complete 174 pole replacements in Q2 with a YTD total of 232 pole replacements, placing the program 152 poles ahead of schedule.

#### **Asset Workforce Planning:**

**Volume vs 2023 Goal:** For 2023 BVES has a goal to verify that the wildfire related positions are appropriately staffed. This review is conducted quarterly

**Key Actions:** BVES reviewed and verified that the appropriate staffing levels exist for wildfire related positions.

Distribution Pole
Replacement and
Reinforcement
GD\_5
Radford Line
Replacement Project
Off Track

#### <u>Distribution Pole Replacement and Reinforcement</u> (Radford Line Replacement Project):

**Volume vs 2023 Goal:** BVES planned to replace 10 poles in Q2. The program target for Radford Line Replacement Project pole replacement is 70 by the end of 2023

**Key Actions:** BVES scheduled 10 pole replacements in Q2. BVES replaced zero poles in Q2. The pole replacement schedule for Radford is contingent on the US Forest Service permitting process.

Not Started Completed Ahead of Plan On Track Off Track

## Grid Design, Operations & Maintenance

Distribution Pole
Replacement and
Reinforcement
GD\_6
Evacuation Route
Hardening Project
Exceeded Target

Transmission Pole/Tower
Replacement and
Reinforcement

GD\_7
Not Applicable

#### **Asset Quality Assurance / Quality Control:**

**Volume vs Q1 2023 Goal:** BVES planned to complete a total of 50 poles hardened with Wire Mesh in Q2. BVES was able to complete 296 poles hardened with Wire Mesh Q2.

**Key Actions:** BVES was able to complete 296 poles hardened with Wire Mesh in Q2 with a YTD total of 796 poles hardened with wire mesh. BVES has exceeded its target for 2023.

**Transmission Pole/Tower Replacement and Reinforcement:** 

Volume vs 2023 Goal: BVES does not own or operate any

transmission assets. **Key Actions:** N/A.

Traditional Overhead
Hardening
GD\_8
On Track

#### **Traditional Overhead Hardening:**

**Volume vs 2023 Goal:** This is an as needed program for BVES. There is a budget allocation for the year based on history but no specifically tracked tasks. Overhead hardening work is performed as needed in response to inspection findings and emergent conditions.

**Key Actions:** BVES conducted as needed maintenance throughout Q2.

Emerging Grid Hardening Technology Installations and Pilots GD\_9

**Not Started** 

**Emerging Grid Hardening Technology Installations and Pilots:** 

**Volume vs 2023 Goal:** Currently no projects in the initiative. BVES will discuss opportunities with partner utilities on the effectiveness of such technologies.

**Key Actions:** No project activity is planned for 2023 in this area.