

FINAL INDEPENDENT EVALUATOR  
2024 ANNUAL REPORT ON COMPLIANCE

July 1, 2025

LS POWER GRID



BUREAU  
VERITAS



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# 1 Executive Summary

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## **Background**

The devastating wildfires of the past and present have taught us valuable lessons about safeguarding California's lands, particularly in areas where electrical infrastructure coexists with wildland environments. In response to these challenges, the California Public Utilities Commission (CPUC) initiated Rulemaking 18-10-007 to provide guidance on Wildfire Mitigation Plans (WMPs) for Investor-Owned Utilities (IOUs), now referred to as Electrical Corporations (ECs). These WMPs are designed to cover a three-year period, with the first cycle of independent evaluations beginning in 2020.

The 2024 WMP is part of the second three-year planning cycle. During the first evaluation of this cycle, which ended in 2023, LS Power Grid (LSPG) experienced construction delays at both their Orchard and Fern Substations, which led to many of the WMP initiatives being delayed. In 2024, LSPG made substantial progress on construction of the Orchard and Fern Substations and the initiatives outlined in their WMP remained largely unchanged from the prior year.

This Independent Evaluator (IE) Annual Report of Compliance (ARC) assesses LSPG's second cycle plan, which began in 2023 and extends to 2025. The IE ARC reviews the WMP initiatives as outlined for 2024 and evaluates LSPG's performance in meeting their committed objective targets. These targets include specific quantifiable or qualitative performance goals, verification of QA/QC program implementation, processes, and results, as well as the distribution of funding to initiatives described within the WMP.

Pursuant to Public Utilities Code Section 8386.3(c)(2)(B)(i), (ii), (iii), and (iv), Bureau Veritas North America, Inc. (BVNA) has been selected as the IE to review and assess LSPG's 2024 WMP in its entirety. This IE ARC will present BVNA's findings and results for review. BVNA was included in the Office of Energy Infrastructure and Safety (Energy Safety) Independent Evaluator List for 2024 WMPs, dated January 27, 2025, in accordance with Public Utilities Code section 8386.3(c)(2)(A).

In compliance with Energy Safety's requirements, LS Power Grid has contracted BVNA to provide the IE assessment. This assessment includes the IE responsibilities outlined in Public Utilities Code section 8386.3(c)(5)(C), which involve performing the following tasks:

- Task 1: Consult with Energy Safety on compliance assurance auditing that will be performed
- Task 2: Perform compliance assurance auditing, including field inspections
- Task 3: Draft and provide to Energy Safety a report on audit findings, including deficiencies of underfunded WMP activities
- Task 4: Draft and provide to Energy Safety a report on deficiencies of electrical corporations
- Task 5: Track and report deficiencies of audit findings

Docket Title: 2023 to 2025 Electrical Corporation Wildfire Mitigation Plans; Docket #: 2023-2025-WMPs produced on September 18, 2024, for LS Power Grid. 2024 WMP R1 update and the requirements of the Public Utilities Code (PU Code); Bureau Veritas North America, Inc. (BVNA) has reviewed LSPG's 2024 WMP.

### **Introduction to LS Power**

LS Power Grid operates two substation sites, Fern Road and Orchard, both of which are Static Synchronous Compensator (STATCOM) facilities. The Orchard Substation construction was completed during 2023-2025 and was energized on March 12, 2025, after experiencing issues that led to its 2024 completion date to be delayed. The Fern Road Substation experienced permit delays during 2023 that slowed progress. In January of 2024, the Fern Road Substation had construction approved by the CPUC and substantial construction progress was made during 2024.

As outlined in LSPG's Annual Report on Compliance (ARC) dated March 2025, LSPG is a wholly owned subsidiary of LS Power, and a California Electrical corporation classified as an Independent Transmission Operator. LSPG has no end-to-end use customers, and its infrastructure is limited to the two (2) 500 kilovolt (kV) substation facilities referred to as Fern Road and Orchard Substations. These substations are in two different geographical areas, the Fern Road Substation is in Shasta County and the Orchard Substation is in Fresno County. Fern Road is located within a Tier 2 High Fire Threat District (HFTD) while Orchard is not located within a HFTD. The Orchard substation is in a non-burnable substrate (irrigated agricultural field) and, as referenced in the WMP, the Fern Road substation has little to no possibility of a woody tree making contact due to structure placement. LSPG states that the likelihood of a catastrophic wildfire in both project areas is minimal due to the fire history, burn probability, and predicted fire behavior – both areas have seen few to no wildfires in the past two decades.

The Orchard Substation connects to PG&E's Gates Substation by two single-circuit 500kV interconnection transmission lines. The Gates Substation will connect through its 500 kV bus to the Orchard Substation 500kV take-off towers. The Orchard Substation was energized in March of 2025 and LSPG anticipates the Fern Substation to be energized in late-2025, completion of both would then fall under the 2023-2025 WMP 3-year cycle.

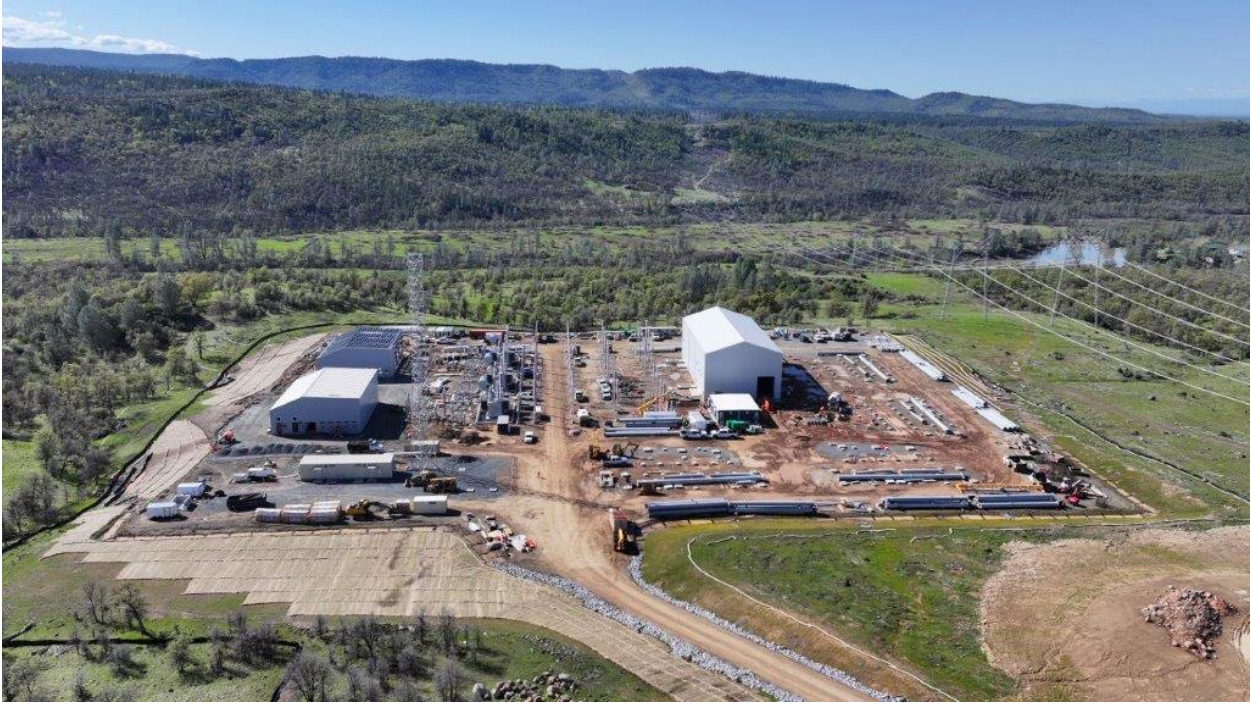


Figure 1 – Aerial Shot of the Fern Substation



Figure 2 – Distant Shot of the Orchard Substation



## **Independent Evaluator Review of Compliance**

BVNA has been selected as the IE for LSPG's 2023-2025 WMP. The IE ARC will focus on evaluating LSPG's progress in implementing the WMP during 2024, assessing the completion of proposed initiatives, analyzing the distribution of allocated funds, and verifying the effectiveness of QAQC programs. This independent evaluation aims to ensure LSPG's compliance with its wildfire mitigations commitments and targets.

The evaluation process began with an Energy Safety kick-off meeting, which served as an introduction between LSPG representatives, BVNA staff, and assigned Energy Safety personnel. This introductory meeting established key elements, including communication and documentation protocols, as well as the identification of individuals responsible for receiving requests from the IE. Following this meeting, the IE initiated a review of LSPG's 2024 WMP and related publicly available documents, as listed in Section 7. This review aimed to identify LSPG's stated goals within the 2024 WMP.

To evaluate activities described in the WMP that were not available in public records, BVNA's team of evaluators submitted data requests and conducted interviews with Subject Matter Experts (SMEs). These steps helped verify activities stated within the 2023-2025 WMP (see Section 7 for a list of Data Requests/SME Interviews). In addition to document analysis, data requests, and SME interviews, the IE conducted a site visit to both the Orchard and Fern Substations. These assessments allowed the IE to collect photographic evidence and evaluate compliance with 2024 activities and initiatives identified during the initial review. Detailed analysis and key findings for each respective category are presented in the following sections of this report.

## **Key Findings**

BVNA has determined that many aspects of the 2024 WMP are limited due to the on-going construction of the Fern Substation and the March 2025 completion of the Orchard Substation.

LSPG is acting in compliance with the 2024 WMP. This is described in further detail in the Review of Initiatives Across WMP Categories section and supporting documents in the Appendices.

In summary, LSPG has done adequate work to implement the WMP initiatives that can realistically be accomplished, while also preparing and maintaining procedures and protocols for WMP initiatives that will be implemented once construction is complete. Out of the eleven (11) initiatives that LSPG has outlined in the 2024 WMP, five (5) are currently in progress and on track, and six (6) were delayed/not-applicable due to the construction of the Orchard substation taking longer than originally anticipated or no explicit targeting for the 2024 review period.

Upon review of finances, BVNA noticed discrepancies on the Quarterly Report (QDR) for Q4, year 2024. Table 11 in this report showed actual spending to be in the millions, which did not align with proposed spending. In a subsequent data request (DR), LSP\_DR003 (see Section 7) sent by BVNA, LSPG clarified that "while the table indicates that figures are in thousands, this convention was not applied to the 2024 actuals column." LSPG provided revised numbers in a new document



attached to this DR titled “WMP Financial Evaluation” but did not file a revised QDR4 to update the convention error to Energy Safety.

A site visit to both the Orchard and Fern substation and review of all documents supporting the implementation of the 2024 WMP initiatives was conducted. Subsequently, BVNA has provided the following IE ARC describing the technical review and findings.

## 2 Focus Initiatives and Discussion

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Due to the size of the Electrical Utility and the small total number of initiatives contained in the WMP, BVNA has opted to classify all eleven (11) initiatives as focus.

- LSP-01: Implement Hot Work Programs
- LSP-02: Implement Substation Inspection Program
- LSP-03: Enhance Use of Computer Maintenance Management Systems (CMMS)
- LSP-04: Establish Risk-Based Buffer Zones & Implement Monthly Substation Inspection Program
- LSP-05: Integrate StormGeo
- LSP-06: Install Substation Cameras
- LSP-07: Evaluate and Enhance Use of Live Video
- LSP-08: Integrate into Local Dispatch Systems
- LSP-09: Establish Annual Contact with Local Fire Agencies
- LSP-10: Formalized Review with Benchmarking
- LSP-11: Best Practice Sharing

## 3 Site & Sample Selection and Discussion

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Sampling percentages do not apply as the initiatives where it would be most applicable were delayed and the IE opted to observe the EC's facilities in its entirety. Any initiative containing a quantitative target that would have had a sampling request associated with it was delayed, therefore no numerical sampling was conducted. All relevant information was gathered during the on-site field visit and data request process and is included with Section 7.

## 4 Review of Initiatives Across WMP Categories

### 4.1 Grid Design, Operations, & Maintenance

#### 4.1.1 Initiative Summary Table

Initiative Number, WMP Section Number, and Name	WMP – Initiative Target	EC-Claimed Progress	EC-Claimed Initiative Status	Sample Size	Sample Validation Rate (%)	Verification Method	IE Finding on Initiative (Initiative Validation Rate)	WMP – Planned Spend (\$)	EC-Claimed Actual Spend (\$ and % from budget)	Satisfied Risk Reduction Goal?
<b>LSP-01</b> 8.1 Implement Hot Work Programs	N/A	N/A	In Progress	N/A	N/A	Training Documents & Logs (DR006)	Not Applicable	\$0.00	\$0.00	N/A
<b>LSP-02</b> 8.1 Implement Substation Inspection Program	16	0	Delayed	N/A	N/A	LSPG Written Response (DR007)	Not Applicable	\$0.00	\$0.00	N/A
<b>LSP-03</b> 8.1 Enhance Use of Computer Maintenance Management Systems (CMMS)	N/A	N/A	In Progress	N/A	N/A	Document Review	Not Applicable	\$0.00	\$0.00	N/A

## 4.1.2 Written Detail for Initiatives

### 4.1.2.1 Initiative Review – Findings & Methods

#### **LSP-01:**

LSP-01 addresses wildfire risk through implementation of Construction Fire Prevention Plans (CFPPs), Worker Environmental Awareness Program (WEAP), and hot work procedures. Documentation submitted confirms that both Orchard and Fern substations have completed the required CFPPs, WEAP materials, and have provided associated training logs to show implementation. The training logs show the record of training taking place every month for the year 2024, and include employee name, company, date, trainer, and signature. Thresholds for Red Flag Warnings are included in the CFPPs, and a Health, Safety, and Environment (HSE) policy related to Welding, Cutting, and Hot Work is provided.

In the 2024 EC ARC, LSPG states that due to neither site being operational in 2024, the transition from construction to operations did not occur, but that Hot Work Programs were applied during applicable construction activities. This initiative contained no target for 2024 and the implementation/target completion of these programs, as outlined in the 2023 IE ARC, were completed.

On Table 1 of QDR4, LSPG claims this initiative status as "in progress," but findings from the prior year's IE ARC demonstrate that this initiative was completed in 2023. In response to DR005, LSPG clarified that the program "was successfully implemented in 2023 for construction activities" at both substations, however, the initiative was tracked as an ongoing program due to the inclusion of "maintenance activities" in its scope. While the construction portion of the initiative was completed in 2023, the broader program remains in progress until the substations are completed, and maintenance activities commence. Due to the 2024 EC ARC containing no target for this initiative and the 2024 WMP stating a completion date of 2023, the IE has determined that LSP-01 is not applicable for 2024. However, based on the analysis and documentation provided, the IE confirms that LSPG continues to employ the previously implemented Hot Work Programs to mitigate wildfire ignition risk during construction activities.

For future WMP cycles, LSPG should provide clear initiative targets and milestone dates, especially for multi-step initiatives. To clarify the long-term status of LSP-01: if it's ongoing, the WMP should outline this with specific completion dates for each phase; if completed in 2023, future QDR/ARC reporting should reflect this. The initiative's targets should be explicitly stated, if it includes both implementing, maintaining, and transitioning Hot Work Programs, this should be specified with trackable milestones; if the initiative was solely about initial implementation, its 2023 completion should be acknowledged in future reports.



### **LSP-02:**

The LS Power Wildfire Mitigation Plan (WMP) describes LSP-002 as a proactive substation inspection program intended to mitigate wildfire risk through regular physical inspections and vegetation assessments at substation sites. According to the utility's response to Data Request LSP\_DR007, LS Power had no substations in operation during the 2024 compliance period. As such, no inspections were conducted in 2024. However, the utility's response confirms that substation inspection activities are scheduled to commence in 2025, coinciding with new asset activation.

The data request response includes a letter from LS Power and an excerpt from the updated 2025 WMP confirming the planned implementation timeline. No implementation evidence was available for 2024. The review team did not request field verification for this initiative due to the confirmed absence of operational assets.

LSP-002 is a planned initiative that was not active during the 2024 compliance period due to the lack of operational substations and therefore has been determined not applicable to review for 2024. Documentation submitted by the utility confirms that inspections are scheduled to begin in 2025. The absence of implementation in 2024 is justifiable and does not constitute a compliance failure. The initiative should be monitored in future cycles for timely activation and measurable execution as assets come online.

### **LSP-03:**

LSP-03 proposes integration of a Computer Maintenance Management System (CMMS) to provide automation into LSPG maintenance work orders. However, per page 100 of the WMP, no deliverables for this system are assigned to the 2024 cycle, and no current infrastructure or system logs were provided. The initiative aims for 100% of major assets to reside in the CMMS database by 2025. The IE has marked LSP-03 as not applicable for 2024, consistent with WMP targets. Future implementation will require CMMS evidence of database status and maintenance.

#### ***4.1.2.2 Funding Verification – Findings***

After review of both QDR Table 11 and "WMP Financial Evaluation" provided in Data Request 003, LSPG reported no planned spending nor actual spending in Grid Design, Operations, and Maintenance for 2024.

QDR4, Table 11 shows planned spending in 2023 and 2025 for LSP-02 and LSP-03 but no planned spending for 2024 and LSP-01 is not included on Table 11. The 2024 EC ARC outlines no planned nor actual spending for LSP-01/02/03 for 2024.

LSP-01 contained no target for 2024 and therefore no planned spending or associated spending was reported. LSP-02 and LSP-03 were both not executed during 2024 which is why no actual spending is shown for these two initiatives, and this is reflective of no planned spending.

### 4.1.3 Synthesis of Findings

#### 4.1.3.1 *Synthesis of Findings – Initiative Review*

Based on the information provided, LSPG has demonstrated compliance with the applicable initiatives under the Grid Design, Operations, and Maintenance category of the 2024 WMP.

Out of the three initiatives proposed in the 2023-2025 WMP, the IE determined that all three were not applicable for the 2024 review period. LSP-01, as outlined in the WMP, contained no goal for 2024 and this was confirmed through the 2024 EC ARC. Although documentation was received that shows LSPG is continuing to implement the Hot Work and WEAP training programs, this was not stated explicitly as a target for LSP-01 and therefore, not applicable to review for 2024. LSP-02 was due to the delay in the energization of the Orchard Substation, and LSP-03 was due to having no target for 2024.

LSPG has outlined its plan to commence substation inspections during the 2025 compliance period, as new assets, such as the Orchard Substation, come online. This demonstrates LSPG's continued efforts to address wildfire risk mitigation through its WMP initiatives.

#### 4.1.3.2 *Synthesis of Findings – Funding Verification*

Due to the lack of expenditures, there are no significant trends or funding-related developments to report on regarding initiative progression, as the delays were not due to funding constraints.

Based on the financial documents reviewed (referenced in Funding Verification – Findings), LSPG has not reported any planned or actual spending on Grid Design, Operations, and Maintenance for the year 2024.

## 4.2 Vegetation Management & Inspections

### 4.2.1 Initiative Summary Table

Initiative Number, WMP Section Number, and Name	WMP – Initiative Target	EC-Claimed Progress	EC-Claimed Initiative Status	Sample Size	Sample Validation Rate (%)	Verification Method	IE Finding on Initiative (Initiative Validation Rate)	WMP – Planned Spend (\$)	EC-Claimed Actual Spend (\$) and % from budget	Satisfied Risk Reduction Goal?
<b>LSP-04</b>  8.2  Establish Risk Based Buffer Zones & Implement Monthly Substation Inspections	N/A	N/A	Delayed	N/A	N/A	Document Review	Not Applicable	\$0.00	\$6,125 <sup>1</sup>	N/A

<sup>1</sup> QDR4 Table 11 showed no actual spend for LSP-04. This number is from the 2024 EC ARC and “WMP Financial Evaluation” in response to DR003

## 4.2.2 Written Detail for Initiatives

### 4.2.2.1 Initiative Review – Findings & Methods

#### **LSP-04:**

LSP-04 outlines the plan to implement defensible space and vegetation patrols around substation assets. As confirmed in DR001, Orchard Substation was not energized until 2025, therefore a defensible space and subsequent patrol inspections were not triggered during 2024. As such, no vegetation buffer inspections or associated QAQC logs exist for this review cycle. The planned location of the Fern Substation appears to consider the necessary vegetation buffer zone, as observed during the on-site inspection.

The IE has determined this initiative is not applicable for 2024. Defensible space and monthly inspections are dependent on the energization of both the Orchard and Fern Substations. The IE will formally review inspection execution and vegetation clearance protocols in future cycles.

### 4.2.2.2 Funding Verification – Findings

After review of both QDR 4 Table 11 and “WMP Financial Evaluation” provided in Data Request 003, LSPG reported no planned spending in Vegetation Management. According to both aforementioned documents, LSPG reported \$6,125 on actual spending for “Substation Defensible Space” and according to “WMP Financial Evaluation” this spending was for weed abatement undertaken by Allied Weed Control at the Orchard Substation.

Although this initiative was delayed due to the energization of the Orchard Substation not taking place until 2025, LSPG shows that they took action to maintain the risk-based buffer zone by contracting weed abatement at the Orchard Substation during 2024.

## 4.2.3 Synthesis of Findings

### 4.2.3.1 Synthesis of Findings – Initiative Review

Not applicable as there is only one initiative for Vegetation Management.

### 4.2.3.2 Synthesis of Findings – Funding Verification

Nothing further to report than what is outlined in “Funding Verification – Findings.”



## 4.3 Situational Awareness and Forecasting

### 4.3.1 Initiative Summary Table

Initiative Number, WMP Section Number, and Name	WMP – Initiative Target	EC-Claimed Progress	EC-Claimed Initiative Status	Sample Size	Sample Validation Rate (%)	Verification Method	IE Finding on Initiative (Initiative Validation Rate)	WMP – Planned Spend (\$)	EC-Claimed Actual Spend (\$) and % from budget)	Satisfied Risk Reduction Goal?
<b>LSP-05</b>  8.3  Integrate StormGeo	N/A	N/A	Complete	N/A	N/A	Purchase Order & Operation Plan (DR010)	Not Applicable	\$10,000	\$1,082.50 <sup>2</sup>	N/A
<b>LSP-06</b>  8.3.2  Install Substation Cameras	64	29	In Progress	N/A	N/A	LSPG Written Response & Purchase Orders (DR011) On-Site Inspection	Initiative Validated	\$0.00	\$0.00	N/A
<b>LSP-07</b>  8.3.2  Evaluate and Enhance Use of Live Video	N/A	N/A	Delayed	N/A	N/A	Document Review	Not Applicable	\$0.00	\$0.00	N/A

<sup>2</sup> QDR4 Table 11 and the Financial Evaluation Document reported \$21,228.74 for actual expenditure. However, DR005 clarified that this was inaccurately reported and the actual amount spent on LSP-05 for 2024 was \$1,082.50.

### 4.3.2 Written Detail for Initiatives

#### 4.3.2.1 Initiative Review – Findings & Methods

##### **LSP-05:**

LSP-005 is intended to enhance situational awareness through integration of the StormGeo platform, which provides real-time weather intelligence, lightning visualization, and risk-based alerting. Review of Data Request LSP\_DR010, supporting purchase order documentation (PO 3546), and the LS Power Emergency Operations Plan (EOP-011 v.1) confirms integration of the StormGeo services.

Although LSP-005 had an original target of Q1 2025 per the WMP, in response to DR010, LSPG stated that StormGeo was activated prior to the compliance period to support the construction activities at the Orchard Substation. A purchase order shows a 2023 subscription for 24/7 briefings and lightning alert services via StormGeo, directly tied to operations at the Gates substation and verifies that a subscription is active. The EOP-011 further outlines StormGeo's operational role, including use by Transmission System Operators (TSOs) for situational monitoring and weather-driven operational decision-making. These documents collectively validate both procurement and implementation of the initiative during the compliance period.

At the Orchard Substation, the utility demonstrated appropriate use of StormGeo in alignment with its WMP commitments and operational protocols. Documentation confirms both fiscal investment and real-time integration into control center operations, supporting initiative effectiveness. However, no explicit target was stated for the 2024 review period and the 100% integration was not targeted until Q1 2025, therefore this initiative will be reviewed for compliance in next year's WMP review. Based upon this analysis, the documentation provided, and ultimately no 2024 target, the IE has determined that this initiative is not applicable for review during the 2024 review period.

##### **LSP-06:**

LSP-006 pertains to the installation of CCTV infrastructure at LS Power's Orchard and Fern substation as part of its wildfire risk mitigation strategy. This initiative involves the deployment of surveillance equipment to improve situational awareness and asset security. In response to Data Request LSP\_DR011, LS Power submitted two supporting purchase orders, LSP10116, which confirms procurement of 29 CCTV cameras and associated hardware, and LSP10121, which documents commissioning and configuration services for the camera system.

Purchase Order LSP10116 (dated 5/29/24) includes line items for specific camera models, mounts, licensing, enclosures, and accessories to support a comprehensive surveillance system installation. Purchase Order LSP10121 (dated 6/11/24) covers professional services for configuration, testing, and commissioning of the cameras at the Orchard site.

While the utility did not submit field commissioning logs, work orders, or photo documentation, the financial records submitted confirm both the material acquisition and the scheduled service implementation. These POs substantiate the utility's representation that installation of the 29 cameras is in progress and aligned with the 2024 wildfire season.

In the 2024 EC ARC, LSPG states that the 29 cameras installed during 2024 were at the Orchard Substation. Due to permitting and construction delays, the remaining camera installations at the Fern Substation were not completed and are now expected to be installed in 2025. However, in the 2024 WMP, LSPG stated a target of 64 cameras installed, whereas QDR4 Table 1 listed 29 cameras installed as the target. In response to DR005, LSPG clarified that the original 2023-2025 WMP identified a target of 64 cameras, 32 at each of the two substations. This target was outlined prior to construction commencing and were based on the most recent engineering designs LSPG had available. As construction progressed, the design of the Orchard substation was revised and only 29 cameras were necessary. Due to the change of cameras at the Orchard substation and the delay in construction at Fern Road, LSPG attempted to revise the initiative target to reflect the updated camera count, but Energy Safety required the retention of the originally approved target of 64 cameras. Fern Road Substation's construction delay was accepted by Energy Safety in the 2025 WMP update and as a result, in QDR4 Table 1, LSPG has marked this initiative as "in progress" rather than "delayed" aligning with the new timeline and to avoid reporting as delayed until the Fern Road substation is operational.

LSP-006 is confirmed as in progress based on submitted financial documentation demonstrating the purchase and commissioning of 29 CCTV units for the Orchard substation. The initiative aligns with WMP commitments and represents a proactive measure to enhance visibility and risk detection at critical grid infrastructure. The full implementation and operational status of the Fern Road substation should be assessed during the next review cycle. Based upon this analysis, the delay of the Fern Substation, and documentation provided, the IE has validated this initiative.

### **LSP-07:**

LSP-07 is a 10-year initiative focused on evaluating how video feeds from substation surveillance systems are used by transmission system operators (TSOs) during fire season. This review cycle is prior to the activation of those workflows and does not include any operational feedback or procedural updates.

The IE has determined LSP-07 is not applicable for the 2024 ARC cycle. Per QDR4, Table 1, LSPG has claimed this initiative as delayed due to the Orchard Substation energization not taking place during 2024. Evaluation metrics will begin post-commissioning of camera systems and TSO readiness protocols. The IE will review this initiative in future WMP cycles.

## 4.3.2.2 *Funding Verification – Findings*

After review of both QDR4 Table 11 and “WMP Financial Evaluation” provided in Data Request 003, LSPG reported \$10,000 planned spending for LSP-05 and no planned spending for LSP-06 & LSP-007 for Situational Awareness and Forecasting.

QDR4 Table 11 shows actual spending of \$21,228.74 for LSP-05, Weather Forecasting. “WMP Financial Evaluation” shows the same amount for actual spending and is applied to the same initiative but also states that the entity paid was “TTR & Columbia Weather Systems Inc.” In response to DR005, LSPG clarified that the \$21,228.74 number reported for LSP-05 was an error and that the amount corresponds to the purchase and installation of a weather station at Orchard, not LSP-05, StormGeo implementation. PO 3546, provided by LSPG, reports \$1082.50 was paid to StormGeo to fulfill compliance with initiative LSP-05. The 2024 EC ARC states that \$2,500 was spent on LSP-05 during 2024, but DR005 clarifies that only \$1,082.50 was charged during 2024. The remaining \$1,500 was charged for StormGeo at the Fern Road substation but was incurred during January of 2025, therefore the actual expenditure for LSP-05 during 2024 was \$1,082.50.

QDR4 Table 11 and the 2024 EC ARC both report no planned or actual expenditure for LSP-06. In Data Request LSP\_DR011, LSPG provided two purchase orders (POs) to verify the purchase and commissioning of 29 cameras and demonstrate compliance with LSP-06. The first PO, “LSP10116,” is for the purchase of the cameras themselves, totaling \$158,443.14. The second PO, “LSP10121,” is for the configuration of the cameras, totaling \$15,292.07. In response to DR005, LSPG clarified that these cameras were not specifically purchased for WMP efforts and are purchased as part of LSPG’s standard substation deployment package. The cameras will be utilized for wildfire purposes, but the costs outlined in both POs were allocated into general substation costs and not to LSP-06. The contract number on the POs containing the date of 2021 was when LSPG executed the professional service agreement with NextGen to purchase the cameras to avoid supply chain delays.

## 4.3.3 *Synthesis of Findings*

### 4.3.3.1 *Synthesis of Findings – Initiative Review*

Due to the WMP not outlining an explicit target, LSP-05 is not applicable for review during 2024. Although LSPG did integrate StormGeo to utilize during construction activities at the Orchard Substation, the target outlined in the WMP was for 2025 and this initiative will be reviewed again next year. For LSP-06, the IE has determined that LSPG is in progress with the implementation of substation cameras. They have demonstrated the purchase and configuration of cameras at the Orchard Substation. However, due to the ongoing construction at the Fern Substation, no cameras have been purchased or configured. This initiative will be reviewed in the next annual cycle, as the Fern Substation is anticipated to be completed by 2025.

LSP-07 is dependent on the completion of LSP-06 and the energization of both substations. The IE will conduct a review next year to assess any evaluations or enhancements LSPG has made to



the live video feed at the Orchard Substation. Once the Fern Substation is completed in 2025, the review will ideally include that system as well.

### *4.3.3.2 Synthesis of Findings – Funding Verification*

Based upon the documentation provided and the reported planned and actual spending in QDR4 Table 11, the 2024 EC ARC, the Financial Evaluation Document, and the response to DR005, LSPG's spending for the Situational Awareness WMP category was an underspend by ~89%. LSP-05 anticipated a planned expenditure of \$10,000 but reported an actual expenditure of only \$1,082.50. Although the 2024 EC ARC reported an actual expenditure of \$2,500, the response to DR005 clarified that \$1,500 of that amount was actually incurred during 2025 and therefore only \$1,082.50 was spent during 2024.

Although the POs for LSP-06 amounted to \$173,735.21, LSPG clarified that these expenses are not applied to WMP initiative LSP-06 and rather are included in the general substation costs. Therefore, the reported amount of zero planned and actual spending on QDR4 Table 11 and the 2024 EC ARC is accurate.

Throughout 2024, LSPG was in the construction phase for both substations and logistics can rapidly shift due to various factors. Projecting costs for initiatives during the construction phase can prove challenging as site design can alter, projects can be delayed, or unforeseen expenses can arise, which in turn changes the planned/actual expenditures that were previously reported. However, LSPG could still benefit from providing more accurate financial reporting, specifically on QDR4 Table 11, to avoid discrepancies with reporting on the 2024 EC ARC or supporting initiative documentation. If errors are included in any financial reporting documentation, LSPG should seek to revise the error and resubmit to ensure the most accurate documentation is publicly available.

## 4.4 Emergency Preparedness

### 4.4.1 Initiative Summary Table

Initiative Number, WMP Section Number, and Name	WMP – Initiative Target	EC-Claimed Progress	EC-Claimed Initiative Status	Sample Size	Sample Validation Rate (%)	Verification Method	IE Finding on Initiative (Initiative Validation Rate)	WMP – Planned Spend (\$)	EC-Claimed Actual Spend (\$) and % from budget)	Satisfied Risk Reduction Goal?
<b>LSP-08</b>  8.4.3  Integrate Into Local Dispatch Systems	N/A	N/A	Complete	N/A	N/A	LSPG Written Response & Email Correspondence (DR013)	Initiative Validated	\$20,000	\$2,416.20	N/A
<b>LSP-09</b>  8.4  Establish Annual Contact with Local Fire Agencies	2	6	In Progress	N/A	N/A	LSPG Written Response & Email Correspondence (DR014)	Initiative Validated	\$0.00	\$0.00	N/A
<b>LSP-10</b>  8.4.2  Formalized Review with Benchmarking	1	1	In Progress	N/A	N/A	LSPG Written Response, Emergency Operation Plan, and Plan Review Checklist (DR015)	Initiative Validated	\$0.00	\$0.00	N/A

## 4.4.2 Written Detail for Initiatives

### 4.4.2.1 Initiative Review – Findings & Methods

#### **LSP-08:**

LSP-008 aims to improve emergency preparedness and wildfire response through proactive coordination with local fire agencies and integration into regional dispatch systems. In response to Data Request LSP\_DR013, LS Power provided documentation demonstrating in-person coordination with CAL FIRE Station 93 and CAL FIRE Station 35.

At the Orchard site (Huron, CA), CAL FIRE Station 93 personnel conducted a site access evaluation via Trinity Lane. The visit confirmed that vertical clearance on the access route was sufficient for fire apparatus. Although the site visit was cut short due to an active fire response, CAL FIRE confirmed that they would disseminate access details to Station 93 personnel. A follow-up email (“FW\_ Fresno County Fire Huron station 93”) reinforces that this coordination occurred.

Separately, LS Power’s construction manager for the Fern Road project (Whitmore, CA) coordinated with CAL FIRE Station 35. Meetings were held with Capt. Dave Hight and Tyler Woods to provide site maps, contact details, and dispatch coordination. The follow-up email (“\_ext\_ Re\_ Fern Road Project...”) documents these interactions and outlines a commitment to ongoing information sharing with dispatch teams.

The review team found no formal MOUs or integration system logs but determined that email correspondence and in-person visits constitute meaningful engagement with dispatch entities in alignment with initiative goals.

LSP-008 is in progress based on clear documentation of field coordination and dispatch engagement. While integration efforts are still developing and not yet formalized through signed agreements or system integration logs, the initiative demonstrates LS Power’s intent and early execution of this wildfire mitigation measure. Continued monitoring is recommended to validate whether integration efforts expand into formal emergency protocols or multi-agency communication systems. Based upon this analysis and the documentation provided, the IE has validated this initiative.

#### **LSP-09:**

LSP-009 commits LS Power to conduct annual outreach and coordination with emergency response agencies local to each substation. In response to Data Request LSP\_DR014, LS Power provided a Fire Agency Visit Log summarizing coordination activities with multiple agencies, including CAL FIRE and Fresno County Fire. The spreadsheet captures date, location, agency name, personnel contacted, and nature of outreach (e.g., site tours, information sharing, pre-incident planning).

In addition to the log, email correspondence files (“RE\_ LS-Power Public Safety Outreach” and “Orchard Substation Public Safety Outreach\_Training”) confirm that these engagements occurred in 2024. The correspondence includes outreach invitations and planning discussions for site visits and coordination briefings. These materials support WMP Section 8.4.3.1, which outlines LS Power's commitment to annual emergency coordination as part of broader preparedness measures.

The Emergency Operations Plan (EOP-011) further defines LS Power's roles and responsibilities for ongoing emergency coordination, including post-wildfire service restoration and information dissemination to public agencies.

LSP-009 is implemented and verifiable for the 2024 cycle. Documentation submitted by LS Power, including the Fire Agency Visit Log and direct correspondence, demonstrates that engagement occurred with relevant emergency agencies for both Orchard and Fern Road substations. This initiative was effectively implemented in line with WMP goals and regulatory expectations. Continued tracking and documentation of annual coordination efforts is recommended to sustain compliance in future cycles. Based upon this analysis and the documentation provided, the IE has validated this initiative.

### **LSP-10:**

LSP-10 is a 10-year initiative to formalize emergency preparedness planning and benchmark those plans against peer utilities. As of the end of 2024, LS Power Grid California (LSPGC) finalized and approved its Emergency Operations Plan (EOP-011), which outlines procedures for mitigating transmission and energy emergencies, wildfire events, and extreme weather threats. The EOP was formally adopted in December 2024 and includes requirements for internal annual review and submission to CAISO Reliability Coordinator (RC West) using the RC0410A checklist. These documents were submitted as part of the 2025 ARC review.

Benchmarking processes are not yet implemented but are actively under development. Per LSP\_DR015, LS Power confirmed that benchmarking will begin during operational activities in 2025 and beyond. No benchmarking memos, procedural updates, or comparison matrices were available during this review cycle.

LSP-10 has met foundational planning expectations through the development of an Emergency Operations Plan and the formalization of its internal review process. Benchmarking activity has not begun but is appropriately scheduled for future years. No evidence of misalignment was identified, and no additional documentation is required for this cycle. Evaluation of benchmarking results will occur in future ARC reviews as operational maturity increases. Based upon this analysis and the documentation provided, the IE has validated this initiative.

### ***4.4.2.2 Funding Verification – Findings***

After review of both QDR 4 Table 11 and “WMP Financial Evaluation” provided in Data Request 003, LSPG reported planned spending of \$20,000 for LSP-08 and no planned spending for LSP-



09 and LSP-10. According to both financial documents, LSPG reported \$2,416.20 on actual spending for LSP-08 and according to “WMP Financial Evaluation” this spending was for coordination with local dispatchers, which aligns with the WMP goal for this initiative. LSPG also reported \$9,664.80 on Emergency Preparedness but did not report an exact initiative the spending applied to. Referencing “WMP Financial Evaluation” the expenditure was on “operating agreement with PG&E” for the Orchard Substation.

### **4.4.3 Synthesis of Findings**

#### ***4.4.3.1 Synthesis of Findings – Initiative Review***

LSPG demonstrates a proactive approach to improving emergency preparedness and wildfire response through implementation of the initiatives in this WMP category. For LSP-08, LSPG documented in-person site visits and email correspondence with local agencies, confirming access routes and establishing dispatch communication protocols. While formal agreements are still in development, these early engagement efforts align with the initiative’s goals. Similarly, LSP-09 outlines LSPG’s commitment to outreach and coordination with emergency responders, which was verified through Fire Agency Visit Logs and email records of site tours. Regarding LSP-10, LSPG has finalized an EOP that defines procedures for use during emergencies. Benchmarking of these plans against peer utilities is planned for 2025.

Overall, LSPG has made meaningful progress in implementing these wildfire mitigation measures through document coordination with local agencies and the development of foundational plans and procedures. Further review in 2025 will take place to ensure the expansion of these efforts.

#### ***4.4.3.2 Synthesis of Findings – Funding Verification***

Based upon the documentation provided and the reported planned and actual spending, LSPG’s spending for WMP category Emergency Preparedness was an underspend by 40%. The IE determines that this amount of spending aligns with the initiative completion status.

## 4.5 Community Outreach & Engagement

### 4.5.1 Initiative Summary Table

Initiative Number, WMP Section Number, and Name	WMP – Initiative Target	EC-Claimed Progress	EC-Claimed Initiative Status	Sample Size	Sample Validation Rate (%)	Verification Method	IE Finding on Initiative (Initiative Validation Rate)	WMP – Planned Spend (\$)	EC-Claimed Actual Spend (\$) and % from budget	Satisfied Risk Reduction Goal?
<b>LSP-11</b>  8.5.5  Best Practice Sharing	2	N/A	In Progress	N/A	N/A	Wildfire Conference PPT, Notes, and LSPG Written Response (DR016)	Initiative Validated	\$20,000	\$3,522.38	N/A

## 4.5.2 Written Detail for Initiatives

### 4.5.2.1 Initiative Review – Findings & Methods

#### **LSP-11:**

LSP-011 outlines LS Power’s commitment to tracking, reviewing, and learning from any wildfire ignition incidents associated with its transmission assets. In response to Data Request LSP\_DR016, LS Power confirmed that no ignition events occurred during the 2024 compliance period, which aligns with its limited operational exposure during this phase of system build-out.

To support continuous improvement and compliance with industry expectations, LS Power submitted documentation of its external learning and benchmarking practices, including participation in wildfire mitigation conferences and inter-utility information sharing platforms. Specifically, LS Power attended the EUCI 2024 Wildfire Mitigation Conference, where SDG&E and PG&E shared best practices on PSPS operations, ignition reduction through grid hardening, advanced relay technologies, and ignition data modeling.

While LS Power has not yet developed its own historical database of ignition events, it has indicated intent to adopt best practices from experienced operators and has integrated ignition awareness into its operational culture. The Emergency Operations Plan (EOP-011) also contains relevant procedures for event tracking and reporting once operations scale.

LSP-011 is formally in place and procedurally active, although no ignition events were recorded in 2024. LS Power’s approach to ignition event tracking is in early-stage implementation, with a current emphasis on learning from external sources and preparing for future ignition response needs. The utility’s attendance at technical wildfire mitigation conferences and participation in best-practice exchanges substantiates meaningful engagement. Further development of internal logging systems and formal after-action workflows is recommended as operational activity expands. Based upon this analysis and the documentation provided, the IE has validated this initiative.

### 4.5.2.2 Funding Verification – Findings

After review of both QDR 4 Table 11 and “WMP Financial Evaluation” provided in Data Request 003, LSPG reported planned spending of \$20,000 for LSP-11. According to both financial documents, LSPG reported \$3,522.38 on actual spending for LSP-11 and according to “WMP Financial Evaluation” this spending was for a wildfire mitigation conference, which aligns with the WMP goal for this initiative.

## 4.5.3 Synthesis of Findings

### 4.5.3.1 Synthesis of Findings – Initiative Review

Not applicable as there is only one initiative for Community Outreach and Engagement.

### *4.5.3.2 Synthesis of Findings – Funding Verification*

Based upon the documentation provided and the reported planned and actual spending, LSPG's spending for WMP category Emergency Preparedness was an underspend by 82%. The IE determines that this amount of spending aligns with the initiative completion status.

## 5 Evaluation of QA/QC Programs

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Due to LSPG having no energized assets in 2024, they do not currently support a standalone QA/QC program beyond its contractors. QA/QC oversight for construction is handled by the site-specific construction manager and documentation was provided outlining the procedures and protocols during these phases. Based on SME interview questionnaires and supporting documentation, LSPG's QA/QC program receives a score of 1 – initiated due to the current operational phase of LSPG's assets. The score for the current review year reflects that both substations were under construction during 2024. This does not indicate a failure of planned QA/QC implementation, but rather that the QA/QC procedures and protocols are in preliminary stages and that the current construction phase QA/QC is being implemented. More detail is provided on the procedures and protocols that LSPG will implement once both substations have become operational in the sections outlined below.

### ***Roles and Responsibilities – Score: 1 (Initiated)***

The IE has determined that LSPG achieves a score of 1 – initiated, determined by the Energy Safety QA/QC Program Assessment Framework. QAQC responsibilities are clearly defined within LS Power's internal role mapping, the Wildfire Mitigation Plan (WMP), and contractor QAQC plans. Named SMEs have been aligned to relevant mitigation initiatives (LSP-01 through LSP-11), and third-party contractors such as Siemens, TTR, and Ampirical have submitted QA/QC protocols confirming task ownership during engineering, procurement, and construction phases. The documentation reflects sufficient structure and accountability for the utility's scale and current operational phase.

### ***Quality Culture – Score: 1 (Initiated)***

The IE has determined that LSPG achieves a score of 1 – initiated, determined by the Energy Safety QA/QC Program Assessment Framework. LS Power's documentation promotes a culture of safety and wildfire mitigation via WEAP training and internal CFPP procedures. While QAQC culture is emphasized, there is limited evidence of reinforcement mechanisms such as internal audit reviews, QAQC-based performance tracking, or organizational feedback loops. The cultural foundation exists, but maturity is expected to improve once full energization occurs and internal tracking systems (e.g., EAM) become operational at both substations.

### ***Quality Management System (QMS) – Score: 1 (Initiated)***

The IE has determined that LSPG achieves a score of 1 – initiated, determined by the Energy Safety QA/QC Program Assessment Framework. A structured management system is outlined via the Emergency Operations Plan (EOP-011), Construction Fire Prevention Plans (CFPPs), and third-party contractor documentation. LS Power's EAM/CMMS system is planned to support QAQC integration, but it did not go live until December of 2024 at the Orchard Substation.

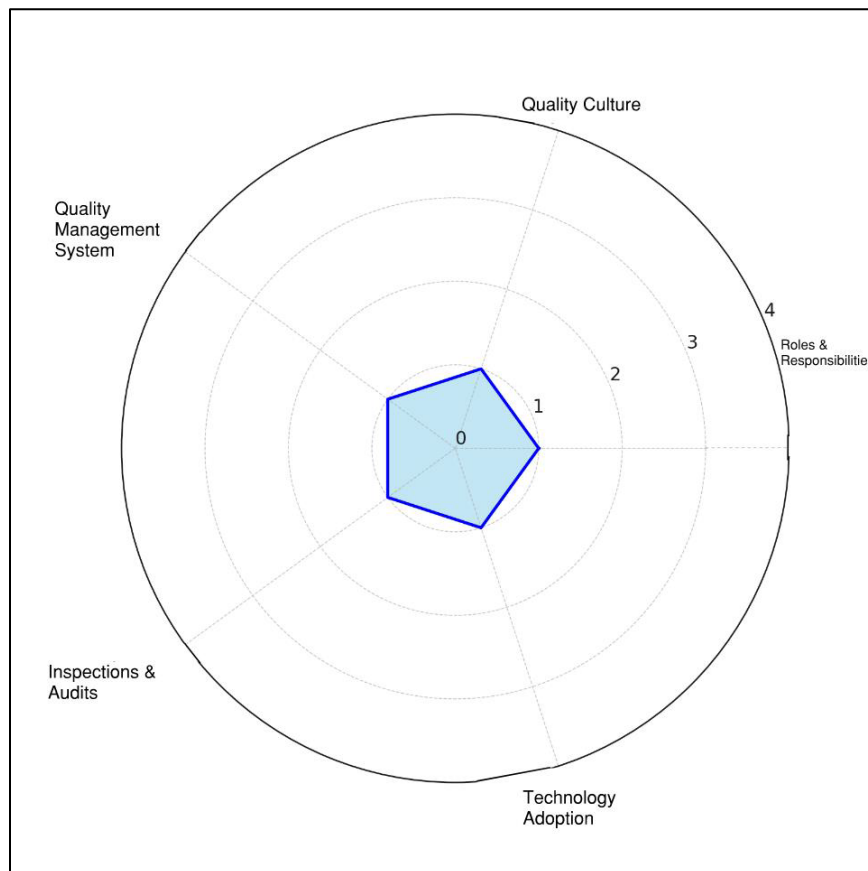
Planning documentation is sufficiently mature, but operational outputs remain pending due to the current operational phase.

## ***Quality Inspections and Audits – Score: 1 (Initiated)***

The IE has determined that LSPG achieves a score of 1 – initiated, determined by the Energy Safety QA/QC Program Assessment Framework. Inspection procedures and monthly walkthroughs are outlined in the WMP and tied to LSP-02, LSP-04, and third-party deliverables. However, no audit forms, inspection logs, or evidence of completed QAQC field activities were submitted for verification. QAQC inspections are conceptually embedded, but field execution remains unverified as of the 2024 review year due to construction at the Fern Substation and a delayed energization at the Orchard Substation taking place in 2025.

## ***QA/QC Technology Adoption – Score: 1 (Initiated)***

The IE has determined that LSPG achieves a score of 1 – initiated, determined by the Energy Safety QA/QC Program Assessment Framework. Technology platforms such as StormGeo, video surveillance, and EAM are incorporated into LS Power’s WMP. While these tools are described in detail and procurement is underway, the current ARC review cycle did not include field-generated outputs or logs due to LSPG’s current operational phase. Adoption plans are clearly articulated, and operational maturity is expected post-energization.





## 6 Conclusion

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Based upon the IE review, site visit, and overall assessment outlined in this document, BVNA has found that LS Power Grid has met the initiatives, processes, and protocols as outlined in the 2024 WMP. LSPG wildfire mitigation strategies have not substantially changed due to the current operational phases at both the Orchard and Fern Substations during the 2024 review period.

LSPG's WMP expenditures saw a significant decrease in 2024 compared to the previous year. Planned and actual expenditures were down for 2024 compared to the previous year. In 2024, according to QDR4 Table 11 and the Financial Evaluation Document, LSPG planned to spend \$70,000 and reported an actual expenditure of \$132,300.71, however, many of the costs incurred were not tied to a specific WMP initiative. Most of the spending reflected in these documents can be attributed to the development of Wildfire Mitigation Strategy which accounted for 64% of actual spending. Evaluating costs tied directly to WMP initiatives, the 2024 EC ARC reported a projected expenditure of \$50,000 and an actual expenditure of \$13,146.08 (adjusted for LSP-05) which leads to a ~73% underspend for 2024. Comparing the WMP initiative planned/actual expenditure reporting to 2023, where LSPG planned to spend \$100,000 and reported an actual expenditure of \$63,000 (2023 IE ARC), LSPG spent ~79% less in 2024 than the prior year.

As outlined in this report, many initiatives were deemed not applicable to the current review year due to the construction status of both the Orchard and Fern Substations during 2024. With a completion date of March 2025 for the Orchard Substation and an anticipated completion date during 2025 for the Fern Substation, a thorough review of LSPG's compliance to the initiatives outlined in the WMP will be conducted in next year's review.

LSPG thoroughly displayed compliance with initiatives that could realistically be accomplished during the current operational phase and successfully demonstrated that procedures and protocols are established for when energization occurs.

Through their current implementation of WEAP and CFPP programs, LSPG demonstrates adherence to a strict wildfire mitigation program during the construction phase of the Orchard and Fern Substations. This is further reflected in the proactive approach LSPG demonstrates to prepare the necessary procedures and protocols needed once both locations are energized. LSPG remains committed to enhancing its wildfire prevention approach by fulfilling necessary commitments as operational phasing allows, while also collaborating with local response agencies. This collaboration ensures that the agencies are equipped and trained to provide effective fire protection for LSPG's facilities as they become energized. This current approach by LSPG has proven functional and compliant given their current operational phase and the lack of historical fire events.

## **7 Attachments**

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The attachments listed below can be found on a separate Microsoft Excel file titled “LSPG 2025 IE ARC Appendix.”

### **7.1 Catalog of Initiatives**

### **7.2 Data Requests**

### **7.3 SME Interviews**

### **7.4 List of “Fail-to-Fund” Initiatives**

### **7.5 Pictures of Non-Conformance**