LOG BEGINS JULY 3, 2025. **LOG BEGINS JULY 3, 2025.**

Liberty 2026-2028 Base WMP Discovery Log

Last Updated: 7/17/2025

Count	Party Name	DR Set #	Data Request	Question No.	Question ID	Question	Responses	Requestor	Date Received	Final Date Due	Date Sent	Links	Number of Attachments	Attachment Links	NDA Required?	WMP Section	Category	Subcategory
1	OEIS	1	OEIS-P-WMP_2025-Liberty-001	1	OEIS-001-Q01	Q01. Regarding Vegetation Management Inspection Targets: In Table 4-1 of its 2026-2028 WMP, Liberty reports 1,476.9 circuit miles of overhead distribution lines and 32.89 circuit miles of transmission lines, totaling 1,509.79 combined circuit miles of distribution and transmission overhead lines. In Table 9-2, Liberty provides a three-year total of 660 circuit miles for its "Vegetation Management Inspection Program – Detailed" and reports a cumulative quarterly target for 2026 Q4 of 700 circuit miles for its "Vegetation Management Program – LiDAR." In Table 9-3 of its 2026-2028 WMP, for "Vegetation Management Program – Detailed" Liberty lists the "Inspection Type" as "Transmission and Distribution," "Area Inspected" as "Territory," and "Frequency" as "Three-year cycle." In the same table, for "Vegetation Management Program – LiDAR" Liberty lists the "Inspection Type" as "Transmission and Distribution," "Area Inspected" as "Territory," and "Frequency" as "Annual." a. Does the "Three Year Total" target for "Vegetation Management Program – Detailed" include all overhead circuit miles in Liberty's territory? i. If yes, explain the different number of circuit miles reported in Table 4-1 and the "Three Year Total" target for "Vegetation Management Program – Detailed." ii. If not, explain why the targets do not cover all overhead distribution circuit miles in Liberty's territory during the three-year cycle. b. Does the "Cumulative Quarterly Target, 2026 Q4" for "Vegetation Management Program – LiDAR" include all overhead circuit miles in Liberty's territory? i. If yes, explain the different number of circuit miles reported in Table 4-1 and the "Cumulative Quarterly Target, 2026 Q4" target for "Vegetation Management Program – LiDAR." ii. If not, explain the criteria for including and excluding overhead circuit miles from the annual LiDAR program.	a. The target unit for detailed inspections is miles inspected of overhead primary distribution and transmission voltage classes (12kV-25kV, and 60kV-120kV). The target does not include the secondary voltage class distribution lines that are included in Table 4-1. The total miles of overhead primary distribution and transmission circuits is approximately 700 miles. Liberty intends to complete detailed inspections on one third of its overhead primary distribution and transmission system per year. Liberty also inspects secondary lines along its primary distribution system. These secondary line inspections are not included in the target. b. The target unit for LiDAR inspections is miles inspected of overhead primary distribution and transmission voltage classes (12kV-25kV, and 60kV-120kV). The target does not include the secondary voltage class distribution lines that are included in Table 4-1. The total miles of overhead primary distribution and transmission circuits is approximately 700 miles. Liberty intends to complete LiDAR inspections of the total overhead primary distribution and transmission system annually.	Jessica McHale	7/1/2025	7/7/2025	7/7/2025	https://california.libertyutilities.com/uploads/Liberty%20Response%20to%20DR%20No.%20OEIS-P-WMP_2025-Liberty-001.pdf			No	9	Vegetation Management and Inspections	
1	OEIS	1	OEIS-P-WMP_2025-Liberty-001	2	OEIS-001-Q02	Q02. Regarding Vegetation Management Procedures: a. Provide the most recent versions of the following procedures documents: i. Vegetation Management Plan (VM-02) ii. Hazard Tree Management Plan (VM-03) iii. Post Work Verification Procedure (VM-04) iv. Vegetation Threat Procedure (VM-05) v. Vegetation Management Notification and Refusal Resolution Policy (VM-06) vi. Vegetation Management Inspection Manual (VM-07) vii. Fire Prevention Plan	a. Refer to attachments "Liberty Response_DR-001-Q02i-vi" and "Liberty Response_DR-001-Q02vii."	Jessica McHale	7/1/2025	7/7/2025	7/7/2025	https://california.libertyutilities.com/uploads/Liberty%20Response%20to%20DR%20No.%20OEIS-P-WMP_2025-Liberty-001.pdf	2		No	9	Vegetation Management and Inspections	
1	OEIS	1	OEIS-P-WMP_2025-Liberty-001	3	OEIS-001-Q03	Q03. Regarding Liberty's Pole Clearing Target (WMP-VM-VFM-01): a. On page 170 of its 2026-2028 WMP, Liberty sets annual targets in 2026, 2027, and 2028 of 4,900 poles. On page 182 of its 2026-2028 WMP, Liberty states "[t]here are approximately 4,900 poles that require clearing on an annual basis in SRA and FRA." Of the 4,900 poles targeted for pole clearing, specify how many of those poles: i. Are required to be cleared under Public Resources Code (PRC) 4292 (i.e., poles in the SRA). ii. Are not required to be cleared under PRC 4292 (i.e., poles not in the SRA). b. For any poles not subject to PRC 4292, identify the applicable governing standards and/or Liberty's standard operating procedures that require those poles to be cleared. c. On page 170 of its 2026-2028 WMP, Liberty sets annual targets in 2026, 2027, and 2028 of 4,900 poles. On page 209 of its 2023-2025 Base WMP, Liberty set annual targets in 2023, 2024, and 2025 of 4,960 poles. Provide justification and details of planned or completed activities which support that the volume of pole clearing work required during Liberty's 2026-2028 WMP cycle will decrease by 60 poles.	a. i. Of the approximately 4,900 poles targeted for pole clearing, approximately 4,500 are required to be cleared under Public Resources Code (PRC) 4292. ii. Of the approximately 4,900 poles targeted for pole clearing, approximately 450 are not required to be cleared under Public Resources Code (PRC) 4292. b. The applicable standard that requires Liberty to clear those poles not subject to PRC 4292 is outlined in the Liberty 2026-2028 Wildfire Mitigation Plan, Section 9.4.1. c. Liberty updated its annual pole clearing target to 4,900 to account for fluctuations in poles from ongoing pole replacement work and system upgrades.	Jessica McHale	7/1/2025	7/7/2025	7/7/2025	https://california.libertyutilities.com/uploads/Liberty%20Response%20to%20DR%20No.%20OEIS-P-WMP_2025-Liberty-001.pdf			No	9	Vegetation Management and Inspections	
1	OEIS	1	OEIS-P-WMP_2025-Liberty-001	4	OEIS-001-Q04	Q04. Regarding Liberty's Wood and Slash Management Target (WMP-VM-VFM-02): On page 280 of its 2026–2028 Base WMP, Liberty sets annual wood and slash management targets of 280 acres for each year: 2026, 2027, and 2028. On page 183, Liberty states, "Liberty has implemented a Fuel Management Program as a precautionary measure, where feasible, to reduce wildfire risks by removing wood and treating brush and slash after vegetation maintenance is performed. Additional treatments that reduce surface fuels from previous activities and those that further reduce fuel loads are also implemented." a. Provide an outline that describes how Liberty plans to complete vegetation management work to meet its 280-acre annual wood and slash management target. The outline must include: i. The number of acres that will receive wood and slash management treatments only in areas where material was generated by Liberty's own vegetation management activities. 1. Specify the diameter classes of woody vegetation to be treated under these activities and describe how each diameter class will be treated. ii. The number of acres that Liberty will perform additional fuel management work on and treat material that was not generated by Liberty's own vegetation management activities. 1. Specify the diameter classes of woody vegetation to be treated under these activities and describe how each diameter class will be treated.	a. i. Wood and slash management is a component of tree removal work and is dependent upon trees identified in the field during ground-based inspections requiring mitigation, and landowner preference for wood removal. Liberty calculates acres treated based off completed work orders with cleanup methods of 100% removal or cutting wood rounds into firewood lengths. Typically, if work occurs on a residential lot less than 0.25 acres the entire lot size is counted. For larger parcels where wood and slash management work occurs, Liberty calculates the acres treated based on the length of the right-of-way for the span. In instances where wood and slash is treated on more than one tree at a location, Liberty counts the acres for that location only once. Liberty has averaged about 3,350 tree removals per year since 2023 with 51% involving wood management post tree work. To determine its annual target, Liberty forecasts approximate acres treated based off historical numbers. 1. Diameter classes of woody vegetation treated are as follows: • R1: 4.0" < 12" DBH • R2: 12.0" < 24" DBH • R3: 24" < 36" DBH • R4: 36" < 48" DBH • R5: 48" DBH and greater ii. Liberty is unable to forecast the number of acres treated for projects where vegetation material is not generated through its own vegetation management activities. However, Liberty actively develops and manages additional fuel management projects through defined scopes of work and detailed specifications. These projects are implemented in coordination with agency partners and landowners, with acreage calculated based on the specific project footprint. Liberty primarily takes an opportunistic approach, collaborating with local stakeholders to support or contribute to fuel reduction efforts that align with its operational priorities. Liberty will also continue to support the U.S. Forest Service's Forest Resiliency Corridors projects located adjacent to Liberty's infrastructure. 1. Diameter classes of woody vegetation treated are as follows: • BB: < 4.0" DBH	Jessica McHale	7/1/2025	7/7/2025	7/7/2025	https://california.libertyutilities.com/uploads/Liberty%20Response%20to%20DR%20No.%20OEIS-P-WMP_2025-Liberty-001.pdf			No	9	Vegetation Management and Inspections	
1	OEIS	1	OEIS-P-WMP_2025-Liberty-001	5	OEIS-001-Q05	Q05. Regarding Extreme-Event Scenarios: a. On page 61 of Liberty's 2026-2028 WMP, Liberty states that it is "assessing the ability of FireSight to account for extreme or high uncertainty scenarios." Provide the timeline, including milestones and associated dates, for when Liberty intends to complete this assessment and integrate any extreme scenarios into its risk modeling. b. On page 62 of Liberty's 2026-2028 Base WMP, in Table 5-4 Liberty Summary of Extreme-Event Scenarios, Liberty includes the "Impact of climate change on long-term weather and vegetation conditions that impact fire behavior." Provide the timeframe for climate change being evaluated (e.g., 30-year forecast).	a. Currently, Liberty does not have a timeline of when it intends to complete the assessment and integrate the extreme scenarios into its risk model. The assessment of extreme or high uncertainty scenarios is solely dependent on Technosylva's prioritization of such modeling efforts and because these types of scenarios are difficult to model, Liberty does not have timeline b. Currently, Liberty does not plan to evaluate climate change in its risk modeling framework.	Jessica McHale	7/1/2025	7/7/2025	7/7/2025	https://california.libertyutilities.com/uploads/Liberty%20Response%20to%20DR%20No.%20OEIS-P-WMP_2025-Liberty-001.pdf			No	5	Risk Methodology and Assessment	
1	OEIS	1	OEIS-P-WMP_2025-Liberty-001	6	OEIS-001-Q06	Q06. Regarding Top-Risk Circuits: On pages 71-72 of its 2026-2028 WMP, Liberty discusses and provides its top risk-contributing circuits, shown in Table 5-6 Liberty Top-Risk Circuits. a. Provide the total overall utility risk score used to calculate whether a circuit qualified as at least 1% of the total overall utility risk score represented within the table, as described on page 71. b. Provide the total number of circuits evaluated within Liberty's service territory.	a. 0.02659407 b. 60	Jessica McHale	7/1/2025	7/7/2025	7/7/2025	https://california.libertyutilities.com/uploads/Liberty%20Response%20to%20DR%20No.%20OEIS-P-WMP_2025-Liberty-001.pdf			No	5	Risk Methodology and Assessment	
1	OEIS	1	OEIS-P-WMP_2025-Liberty-001	7	OEIS-001-Q07	Q07. Regarding Risk Reduction for Top Circuits: a. Provide an updated version of Table 6-5 Summary of Risk Reduction for Top Circuits (Liberty's 2026-2028 WMP, pages 103-104) via Excel with the following additional columns: i. 2026 Grid Hardening Planned (circuit mileage) ii. 2027 Grid Hardening Planned (circuit mileage) iii. 2028 Grid Hardening Planned (circuit mileage) iv. 2026 Covered Conductor Planned (circuit mileage) v. 2027 Covered Conductor Planned (circuit mileage) vi. 2028 Covered Conductor Planned (circuit mileage) b. Identify whether "grid hardening" includes covered conductor for the circuit mileages provided.	a. Refer to attachment: "Liberty Response_DR-001-Q07" b. Grid hardening refers to all WMP initiative activities included in Section 8.2 of Liberty's 2026-2028 Base WMP and includes covered conductor. Because grid hardening refers to all WMP initiative activities included in Section 8.2, overall grid hardening is not measured in circuit mileage (e.g., example targets include the number of tree attachment removals, the number of fuse replacements).	Jessica McHale	7/1/2025	7/7/2025	7/7/2025	https://california.libertyutilities.com/uploads/Liberty%20Response%20to%20DR%20No.%20OEIS-P-WMP_2025-Liberty-001.pdf	1		No	5	Risk Methodology and Assessment	
2	OEIS	2	OEIS-P-WMP_2025-Liberty-002	1	OEIS-002-Q01	Regarding Liberty's Compliance Audit Program Objective and Sampling Statistics: On page 199 of its 2026-2028 Base WMP, Liberty states that "Compliance Audits are performed by qualified vendors." However, on page 200 Liberty does not include its qualified vendor Compliance Audit in Table 9-20. Similarly, on page 201 Liberty does not include its qualified vendor Compliance Audit in Table 9-21. a. Complete the table below to describe the program objective for Liberty's qualified vendor Compliance Audit. b. Complete the table below to provide sampling statistics for Liberty's qualified vendor Compliance Audit.	See DR response for tables.	Jessica McHale	7/3/2025	7/9/2025	7/9/2025	https://california.libertyutilities.com/uploads/Liberty%20Response%20to%20DR%20No.%20OEIS-P-WMP_2025-Liberty-002.pdf			No	9	Vegetation Management and Inspections	
2	OEIS	2	OEIS-P-WMP_2025-Liberty-002	2	OEIS-002-Q02	Regarding Liberty's Compliance Audit Pass Rate Calculation: On page 206 of its 2026-2028 Base WMP, Liberty states "as described in Section 9.11.1, Liberty uses the results of the external Compliance Audit as a metric to provide reasonable assurance that work is being completed as assigned and/or prescribed and in compliance with applicable regulations." a. Provide a list of the criteria that generate the Compliance Audit pass rate (e.g., regulation clearance distance [RCD], ANSI A300 standards, pre-inspector work accuracy, tree crew work accuracy, etc.). i. If multiple criteria generate the Compliance Audit pass rate, explain how Liberty weights each criterion to calculate the pass rate.	Compliance Audit Criteria Description Population Within each span that has been evaluated from the sample size, the count of trees that have been pruned and/or trees that are expected to encroach into the regulated clearance distances within 3 years. Trees within Regulated Clearance Distance Count of trees that are located within regulated clearance distances (4' for 12kv - 60kV, 10' for 120kV) within the evaluated sample. The number of trees located within regulated clearance distance during the compliance audit is measured against the total population of trees within the sample to determine the	Jessica McHale	7/3/2025	7/9/2025	7/9/2025	https://california.libertyutilities.com/uploads/Liberty%20Response%20to%20DR%20No.%20OEIS-P-WMP_2025-Liberty-002.pdf			No	9	Vegetation Management and Inspections	
2	OEIS	2	OEIS-P-WMP_2025-Liberty-002	3	OEIS-002-Q03	Regarding Margin of Error and Confidence Level for Quality Control of Detailed Inspections: On page 201 of its 2026-2028 Base WMP, Liberty does not include a confidence level or margin of error (MOE) for its audit of Detailed Inspections. Provide the following for Liberty's Audit of Detailed Inspections, or provide an explanation why it cannot be provided: a. The confidence level. b. The margin of error.	Due to the small number of units, applying standard statistical parameters (e.g., 95% confidence level, 5% margin of error) results in disproportionately large sample sizes. To maintain efficiency and adequate oversight, a 33% sample size was applied for Detailed Inspections. This percentage aligns with the proportion used for Completed Tree Work.	Jessica McHale	7/3/2025	7/9/2025	7/9/2025	https://california.libertyutilities.com/uploads/Liberty%20Response%20to%20DR%20No.%20OEIS-P-WMP_2025-Liberty-002.pdf			No	9	Vegetation Management and Inspections	
2	OEIS	2	OEIS-P-WMP_2025-Liberty-002	4	OEIS-002-Q04	Regarding Quality Control Pass Rate Calculations: On pages 204-205 of its 2026-2028 Base WMP, Liberty lists multiple conditions that it averages to produce a final quality control pass rate for either a "single tree" or a "single pole." On page 201 of its 2026-2028 Base WMP, Liberty indicates that the "Population/Sample Unit" for its quality control audit of "Completed Tree Work" and "Detailed Inspections" is "Annual Circuit Miles." a. Describe how Liberty calculates the quality control pass rate at the "annual circuit mile" level (i.e., indicate if the pass rate target is the average of all individual tree or pole pass rates, if the target pass rate is the average of each circuit mile's pass rate, or if Liberty calculates the target pass rate using another method).	The pass rate is calculated as the average of all condition scores for the sample units evaluated within each QC work type. See Section 9.11.4, Table 9-24, 9-25, 9-26, 9-27, and 9-28 of Liberty's 2026-2028 WMP.	Jessica McHale	7/3/2025	7/9/2025	7/9/2025	https://california.libertyutilities.com/uploads/Liberty%20Response%20to%20DR%20No.%20OEIS-P-WMP_2025-Liberty-002.pdf			No	9	Vegetation Management and Inspections	
2	OEIS	2	OEIS-P-WMP_2025-Liberty-002	5	OEIS-002-Q05	Regarding Workforce Relevant Educational Requirements: On page 210 of its 2026-2028 Base WMP, Liberty states that it requires a "bachelor's degree or equivalent" for Vegetation Management Supervisor, and System Arborist/Forester roles. Liberty does not indicate that it has education requirements for any other vegetation management roles. a. Does Liberty require relevant education for any positions other than Vegetation Management Supervisor and System Arborist/Forester (e.g., degrees in Forestry, Environmental Science, Natural Resources, Biology, etc.)? i. For positions with educational requirements, indicate each position and the level of education Liberty requires. ii. For positions without educational requirements, indicate each position and describe why these positions do not have minimum educational requirements	Generally, Liberty's minimum educational requirement for internal vegetation management positions is a bachelor's degree or equivalent. Relevant work experience may be an exception to the minimum educational requirement for these positions. All other vegetation management roles are staffed through contracted vendors, as those positions are technical in nature.	Jessica McHale	7/3/2025	7/9/2025	7/9/2025	https://california.libertyutilities.com/uploads/Liberty%20Response%20to%20DR%20No.%20OEIS-P-WMP_2025-Liberty-002.pdf			No	9	Vegetation Management and Inspections	
2	OEIS	2	OEIS-P-WMP_2025-Liberty-002	6	OEIS-002-Q06	Regarding Eagle Rock Analytics Report: In Liberty's response to area for continued improvement LU-23-18 "Weather Station Optimization" Liberty indicated it has "engaged Eagle Rock Analytics to perform a weather station optimization analysis for its system to evaluate how well the network captures the diversity of climate conditions within Liberty's territory." In Data Request OEIS-P-WMP_2024-LU-003 (Question 01), Liberty stated that it expected to receive the Weather Station Optimization final analysis from Eagle Rock Analytics by the end of 2024, and that, "Liberty will provide the final analysis in its next WMP submission or in response to stakeholder request." a. Provide the Weather Station Optimization report from Eagle Rock Analytics.	The results of the analysis performed by Eagle Rock Analytics were provided in the form of GIS data. Please refer to attachments: "Liberty Response_DR-002-Q06.i" and "Liberty Response_DR-002-Q06.ii" for the weather station optimization analysis.	Jessica McHale	7/3/2025	7/9/2025	7/9/2025	https://california.libertyutilities.com/uploads/Liberty%20Response%20to%20DR%20No.%20OEIS-P-WMP_2025-Liberty-002.pdf	2		No	endix D, Sectio	Areas for Continued Improvement, Situational Awareness and Forecasting	

2	OEIS	2	OEIS-P-WMP_2025-Liberty-002	7	OEIS-002-Q07	Regarding Risk Reduction Values Presented in Table 8-1: a. Some risk reduction values are presented as negative, implying an increase in risk within the service territory. i. Explain if the intent was for these values not to include a negative sign ii. Or clarify why these values have a negative sign b. All risk reductions percentages reported in Table 8-1 should be at a service territory level and should represent how much impact an activity has that year on its service territory. Are the risk reduction values reported in Table 8-1 calculated at a service territory level or circuit/segment level? c. Explain why the anticipated risk reduction for certain activities, such as covered conductor installation, appears to remain constant (e.g., 0.3%) over multiple years despite varying annual circuit mile targets. d. Provide calculations in an Excel file of each calculated risk reduction per year and per activity.	a. i. The negative values presented in the risk reduction results are outputs from the risk model and reflect statistically non-significant changes in risk. These values do not indicate an actual increase in risk but rather result from the inherent variability in the simulation process. ii. The model, developed by Direxyon, employs a stochastic simulation methodology. This approach incorporates randomness to account for uncertainty in future outcomes. Each scenario is simulated 100 times, and in each iteration, the probability of a risk event is randomly selected at the segment level. This process generates a distribution of risk values for each investment scenario. Negative values may occur when the investment level is insufficient to produce a consistent and measurable reduction in risk across all simulated futures. In such cases, small improvements may be obscured by the variability introduced through random sampling. As a result, the average risk reduction may appear negative, even though the initiative does not increase risk. Instead, the model is indicating that the effect is not statistically distinguishable from zero. When all initiatives are simulated in combination, the cumulative investment demonstrates a clear and consistent reduction in risk. However, when initiatives are evaluated individually, their isolated impact at the service territory level may be too small to register as statistically significant within the model's variability. Increasing the number of simulation iterations could reduce this variability, as the average risk values tend to converge with more runs. b. The risk reduction values reported in Table 8-1 are calculated at a service territory level. c. Risk reduction was calculated and reported in Table 8-1 as a three-year average over the 2026-2028 Wildfire Mitigation Plan. d. Please refer to attachment "Liberty Response_DR-002-Q07" for the results of the simulations of each calculated risk reduction per year and per activity. Additional information regarding calculations is provided in Section 2.2: Utility Risk Model of the Phase 3-Implementation of DIREXYON Suite and WMP Support (2025) Final Report.	Jessica McHale	7/3/2025	7/9/2025	7/9/2025	https://california.libertyutilities.com/uploads/Liberty%20Response%20to%20DR%20No.%20OEIS-P-WMP_2025-Liberty-002.pdf	1		No	5	Risk Methodology and Assessment	
2	OEIS	2	OEIS-P-WMP_2025-Liberty-002	8	OEIS-002-Q08	Regarding Traditional Overhead Hardening (WMP-GDOM-GH-05): On page 123 of its 2026-2028 Base WMP, Liberty states, "Traditional overhead hardening typically includes installation of stronger poles, modern conductor, shorter spans, increased phase spacing, reduced sag, and hardware upgrades such as brackets, crossarms, insulators, fuses, and arrestors." Additionally, in Table 8-1, Liberty's three-year target for its traditional overhead hardening activity is 3.3 circuit miles. a. Provide a complete description of the scope of work planned for the 3.3 circuit miles of this activity. i. What percentage of these miles will replace existing bare wire conductor? ii. Explain what "modern conductor" means, and how this conductor differs from the existing conductor being replaced. iii. Explain how covered conductor differs from "modern conductor." Include a description of the insulation Liberty uses for covered conductor. b. Additionally, on page 124 of its 2026-2028 Base WMP, Liberty states that "traditional overhead hardening remains a cost-effective and versatile approach, particularly in areas where forest density or terrain constraints make covered conductor or undergrounding less feasible." i. Explain why it is not feasible to replace the existing bare wire conductor with covered conductor in these locations. c. Lastly, in its response to ACI LU-23B-06 (Effectiveness of Sensitive Relay Profile ["SRP"] and Traditional Hardening), Liberty noted "Normal Replacement Baseline" as a project (Appendix D, Table 1-2: Comparison of Risk Calculations). i. Explain how "Normal Replacement Baseline" is the same or different compared to traditional overhead hardening activity.	a. i. The 3.3 circuit miles of traditional overhead hardening planned will consist of targeted rebuilds of existing overhead electric distribution lines in high fire threat districts (HFTDs). The scope of work includes: • Replacement of aging or undersized poles with stronger poles rated for higher wind and loading conditions. • Replacement of aged, damaged, or inadequate hardware such as insulators, crossarms, brackets, fuses, and arrestors. • Installation of modern conductor (ACSR) to replace aging conductor. • Shortening of spans, where feasible, to reduce mechanical stress and potential conductor slap. • Increasing phase spacing and reducing sag to minimize the potential for line-to-line contact or conductor-to-vegetation interactions. This scope is aimed at improving mechanical integrity and electrical reliability in areas where more advanced mitigation strategies (e.g., covered conductor or undergrounding) are constrained by terrain, environmental, or economic considerations. Approximately 90–100% of the 3.3 circuit miles will involve the replacement of existing bare wire conductor. Traditional overhead hardening efforts under this initiative are generally tied to full-line segment rebuilds, which include the removal of degraded bare wire and installation of modern alternatives. ii. "Modern conductor" refers to bare wire conductor that meets current electrical and mechanical standards for strength, ampacity, and durability. Liberty's standard is ACSR. iii. Covered conductor is ACSR tree wire with a polyethylene jacket. This jacket helps reduce ignition risk from wire slap and incidental vegetation contact, but it is not considered insulated by NESC, and standard spacing requirements still apply. In contrast, "modern conductor" refers to bare ACSR (as described above) that meets the current standards for strength, corrosion resistance, and ampacity, but has no outer jacket. Liberty uses both types, depending on site conditions. b. i. Covered conductor is typically used in dense forest areas where it's not feasible to widen crossarms or interset poles, due to environmental constraints, such as steep terrain, limited	Jessica McHale	7/3/2025	7/9/2025	7/9/2025	https://california.libertyutilities.com/uploads/Liberty%20Response%20to%20DR%20No.%20OEIS-P-WMP_2025-Liberty-002.pdf			No	8	Grid Design, Operations, and Maintenance	
2	OEIS	2	OEIS-P-WMP_2025-Liberty-002	9	OEIS-002-Q09	Regarding Emerging Grid Hardening Technology Installations and Pilot Progress: On page 125 of its 2026-2028 Base WMP, Liberty states that it "is not currently piloting additional grid hardening technologies and at this time does not have new emerging technologies to report in its 2026-2028 WMP." a. What additional grid hardening technologies, if any, were considered for piloting and why did Liberty decide not to pursue them for piloting?	Currently, Liberty is not piloting or evaluating specific emerging grid hardening technologies. As a smaller utility with limited resources, Liberty leverages research and pilot results from larger IOUs to inform the future adoption of technologies. Liberty actively participates in joint IOU calls and working groups to stay aligned with proven, cost-effective technologies.	Jessica McHale	7/3/2025	7/9/2025	7/9/2025	https://california.libertyutilities.com/uploads/Liberty%20Response%20to%20DR%20No.%20OEIS-P-WMP_2025-Liberty-002.pdf			No	8	Grid Design, Operations, and Maintenance	
2	OEIS	2	OEIS-P-WMP_2025-Liberty-002	10	OEIS-002-Q10	On page 118 of its 2026-2028 Base WMP, Liberty states that "when a conductor is covered, it is assumed that the Probability of Ignition (POI) calculated by Technosylva is reduced to account for the effectiveness of the mitigation strategy. For bare conductors, the electrical fire probability remains equal to the POI provided by Technosylva. For covered conductor, the POI is reduced by 50% based on the assumed effectiveness of the activity." On page 119 of its 2026-2028 Base WMP, Liberty provides cause-specific reductions used in the model (i.e. "60% reduction in corrosion-related failures," "20% reduction in lightning-related failures," etc.). a. How was the 50% POI reduction determined? i. Provide an explanation and documentation to support this reduction percentage. iv. "70% reduction in animal-related failures" v. "75% reduction in tree-related failures" vi. "40% reduction in unknown causes" b. Explain how each of the following cause-specific reductions were determined. For each reduction percentage listed below, provide explanations and documentation to support these figures: i. "60% reduction in corrosion-related failures" ii. "20% reduction in lightning-related failures" iii. "10% reduction in mechanical failures"	a. Liberty assumed a 50% reduction in the Probability of Ignition (POI) for covered conductor in its 2026–2028 Wildfire Mitigation Plan based on a combination of factors, including subject matter expertise, joint IOU working groups, and industry research. This assumption reflects a conservative estimate of mitigation effectiveness, consistent with findings from the Joint IOU Covered Conductor Effectiveness Workstream, which included lab testing, field data, and SME input. Additional supporting references include: • TDWorld: Covered Conductor – A Wildfire Mitigation Solution • Edison: Insulated Wires Help Reduce Wildfire Risk • Marmon Utility: Wildfire Mitigation with Aerial Covered Conductor • IIT Kharagpur: High Voltage Lab – Covered Conductor Behavior While some sources suggest higher ignition reduction potential, Liberty selected a conservative 50% reduction to avoid overestimating mitigation benefits in its risk model. b. The explanations and documentation to support each of the reductions listed are provided in Section 8.1, Annex 1: Conductor Failure model and vegetation of the Phase 3-Implementation of DIREXYON Suite and WMP Support (2025) Final Report.	Jessica McHale	7/3/2025	7/9/2025	7/9/2025	https://california.libertyutilities.com/uploads/Liberty%20Response%20to%20DR%20No.%20OEIS-P-WMP_2025-Liberty-002.pdf			No	8	Grid Design, Operations, and Maintenance	
2	OEIS	2	OEIS-P-WMP_2025-Liberty-002	11	OEIS-002-Q11	Regarding Fire Risk Maps: On pages 68-69 of its 2026-2028 Base WMP, Liberty provided Figures 5-4 and 5-5 showing Fire Risk Maps. a. Provide higher quality and high-resolution files as a PDF for Figures 5-4 and 5-5 that clearly show the differentiated sections on the maps.	Refer to attachment "Liberty Response_DR-002-Q11"	Jessica McHale	7/3/2025	7/9/2025	7/9/2025	https://california.libertyutilities.com/uploads/Liberty%20Response%20to%20DR%20No.%20OEIS-P-WMP_2025-Liberty-002.pdf	1		No	5	Risk Methodology and Assessment	
3	OEIS	3	OEIS-P-WMP_2025-Liberty-003	1	OEIS-003-Q01	Regarding Unplanned Distribution System Outages from Jan 1, 2023, to Dec 31, 2024: a. From January 1, 2023, to December 31, 2024, provide the following: i. A list and description of each distinct cause code attributed to an unplanned distribution outage.1 ii. The average number of distribution poles in Liberty's service territory. iii. The total number of unplanned distribution outages in Liberty's service territory. iv. The number of unplanned distribution outages caused by vegetation contact. 1. Provide the number of unplanned distribution outages caused by vegetation contact during major event days. v. The number of unplanned distribution outages caused by equipment failure. 1. Provide the number of unplanned distribution outages caused by equipment failure during major event days. vi. In an Excel file attachment(s), provide the data Liberty used to determine the number of outages in tabular form.	i. Refer to attachment: "Liberty Response_DR-003-Q01.i" ii. 25,000 iii. 634 iv. 105 a. 6 v. 213 a. 2 vi. Refer to attachments: "Liberty Response_DR-003-Q01.vi(1)" and "Liberty Response_DR-003-Q01.vi(2)"	Jessica McHale	7/8/2025	7/11/2024	7/16/2025	https://california.libertyutilities.com/uploads/Liberty%20Response%20to%20DR%20No.%20OEIS-P-WMP_2025-Liberty-003.pdf	3		No	8	Grid Design, Operations, and Maintenance	
3	OEIS	3	OEIS-P-WMP_2025-Liberty-003	2	OEIS-003-Q02	Regarding Total Utility Risk: On page 41 of Liberty's 2026-2028 Base WMP and page 7 of the Direxyon report (Attachment B1), there are two figures depicting the components of total Utility Risk. a. Explain why Figure 5-2: RBDM Framework (Liberty's Base 2026-2028 WMP, page 41) includes an additional "Asset Failure Risk" while the Utility Risk calculation in Section 5.2.2.3 (Liberty's Base 2026-2028 WMP, page 49) does not include that risk. b. Explain why Figure 5-2: RBDM Framework (Liberty's Base 2026-2028 WMP, page 41) and Figure 3: Overview of the Risk Framework for Liberty Utilities in DIREXYON (Attachment B1, Direxyon Report, page 7) seem to be depicting different frameworks for Liberty's risk modeling. i. Describe the differences depicted, and why such differences exist. ii. Which figure more accurately depicts Liberty's risk modeling framework?	a. Figure 5-2 presents a conceptual overview of the Risk-Based Decision-Making Framework, which includes Asset Failure Risk, Fire Risk, and PSPS Risk. Section 5.2.2.3 defines Utility Risk as the average of Fire Risk and PSPS Risk. Asset Failure Risk is not included in the utility risk formula, because its effects are already embedded in the components of Fire Risk and PSPS Risk. Asset Failure Risk is a supporting diagnostic tool, used to identify and prioritize mitigations that reduce Fire or PSPS Risk. b. Figure 5-2 is broader and is a depiction of how Asset Failure Risk is a supporting diagnostic tool. Asset Failure Risk is used to support decision making for identifying and prioritizing mitigations that reduce Fire Risk or PSPS Risk. The figure in the DIREXYON Report is focused on the simulation logic, where Asset Failure Risk is not a standalone output but a driver of failure probabilities. i. Asset Failure Risk is a foundational input, not a final output in the Utility Risk formula. The two figures reflect different layers of the same framework. Figure 5-2 of the WMP is a strategic overview outlining the full RBDM Framework. Figure 3 of the DIREXYON Report is more precise when considering computational modeling and simulation logic. ii. Both figures are accurate, but for different purposes. Figure 5-2 of the WMP is more accurate for understanding the full strategic framework, including how Asset Failure Risk informs mitigation planning. Figure 3 of the DIREXYON Report is more accurate for understanding the computational model used to generate risk scores.	Jessica McHale	7/8/2025	7/11/2024	7/16/2025	https://california.libertyutilities.com/uploads/Liberty%20Response%20to%20DR%20No.%20OEIS-P-WMP_2025-Liberty-003.pdf			No	5	Risk Methodology and Assessment	
3	OEIS	3	OEIS-P-WMP_2025-Liberty-003	3	OEIS-003-Q03	Regarding Probability of Ignition: On page 43 of Liberty's 2026-2028 Base WMP, POI is noted as synonymous with "burn likelihood" and "WL," which Energy Safety assumes stands for Wildfire Likelihood. However, on page 64 of Liberty's 2026-2028 Base WMP, the WL row of the table says the Probability of Ignition is an input. On page 43 of Liberty's 2026-2028 Base WMP, the "Probability of Fire" (POF) is equated with "WC," which Energy Safety assumes stands for Wildfire Consequence. a. Provide clarification on the difference between POI and WL, as used in Liberty's WMP. b. Clarify if the POI calculated by Technosylva is derived from the APF (probability of asset failure) and weather sampling from Technosylva (mentioned in the Direxyon report, Appendix B1, page 22). c. Describe why scaling of the POF (formula from Liberty's 2026-2028 Base WMP, page 44) is based on the 80th percentile of the POF.	a. Probability of Ignition (POI) is derived from Technosylva FireSight. POI represents the likelihood that an ignition source, such as a failed asset, will result in a fire requiring suppression. It is a static metric calculated at specific ignition points. Wildfire Likelihood (WL) is a Direxyon Risk Asset Tool (DRAT) module that incorporates POI as an input to the WL module. WL also incorporates condition modifiers to produce a refined asset-specific version of POI that is adjusted for asset conditions and status of mitigation actions. b. The POI from Technosylva is not derived from Probability of Asset Failure. c. The scaling of POF is based on the 80th percentile of POF to increase the sample size of events that could occur. Liberty made the decision to make the risk model less risk adverse to show POF on a slightly broader spectrum to magnify risk. This decision was made for reasons due to the small pool of data relating to utility caused ignitions in Liberty's service territory.	Jessica McHale	7/8/2025	7/11/2024	7/16/2025	https://california.libertyutilities.com/uploads/Liberty%20Response%20to%20DR%20No.%20OEIS-P-WMP_2025-Liberty-003.pdf			No	5	Risk Methodology and Assessment	
3	OEIS	3	OEIS-P-WMP_2025-Liberty-003	4	OEIS-003-Q04	Regarding SRP Risk: On page 114 of Liberty's 2026-2028 Base WMP, the 2026 target for SRP implementation in the HFRA is listed as 100%. SRP is not currently included in the Utility Risk total but is included in a separate Outage Program total. a. Clarify if that means SRP has already been implemented in 2025. b. Explain why SRP risk was not included in Utility Risk at this time. c. Is Liberty planning on including SRP risk in future iterations of its risk modeling? i. If so, provide an approximate timeline for when Liberty plans to have this completed. ii. If not, describe why not, including any existing roadblocks.	a. 100% of circuits will have SRP implemented by the end of 2025. b. SRP (Sensitive Relay Profile) risk is included in Liberty's Utility Risk calculation, though it is not labeled explicitly as "SRP risk." Instead, it is represented as EPSS (Enhanced Powerline Safety Settings) availability within the PSPS Likelihood module of the DIREXYON Risk Assessment Tool (DRAT). In the model, SRP is treated as a conditional circuit-level characteristic and is integrated into Utility Risk through its influence on PSPS Likelihood. c. SRP is already included in Liberty's risk modeling.	Jessica McHale	7/8/2025	7/11/2024	7/16/2025	https://california.libertyutilities.com/uploads/Liberty%20Response%20to%20DR%20No.%20OEIS-P-WMP_2025-Liberty-003.pdf			No	8	Grid Design, Operations, and Maintenance	

3	OEIS	3	OEIS-P-WMP_2025-Liberty-003	5	OEIS-003-Q05	Regarding Risk Equations: a. On page 10 of the Direxyon report (Appendix B1), it describes how SMEs decided that PSPS and Wildfire should be each weighted 50% so that the final risk score ends up being the average. Explain why the PSPS and Wildfire risk scores are averaged instead of summed. b. On page 47 of Liberty's 2026-2028 Base WMP, the consequence scores are described as averages. Explain why the Wildfire and PSPS consequence scores for each attribute are averaged instead of summed. c. Page 45 of Liberty's 2026-2028 Base WMP lists the PEDS Outage likelihood equation. Provide a calculation example for this equation. d. Explain why Liberty uses a PSPS safety factor of 1.5e-9 deaths per 30 minutes Customer Minutes Interrupted (CMI) (Liberty's 2026-2028 Base WMP, page 47). e. Describe how the PSPS Safety Multiplier equation was developed (Liberty's 2026-2028 Base WMP, page 47). f. On page 30 of the Direxyon report (Appendix B1) and page 47 of Liberty's 2026-2028 Base WMP, the formula for reliability consequence includes a "Customer Count." Clarify if this count is per circuit or total service territory count.	a. The approach of averaging the PSPS and Wildfire risk was chosen to provide equal weighting for balanced risk representation. It was determined that both PSPS and Wildfire risks are critical and should be treated with equal importance in Liberty's risk framework. Averaging the two prevents either risk type from disproportionately dominating the Utility Risk score. Because the two risks are calculated using different models and metrics, averaging provides a normalized Utility Risk score on a consistent scale, making it easier to compare across circuits and initiatives. Summing the scores could result in inflated values that exceed the intended scale of the model, especially since both components are already scaled independently. This would reduce the interpretability and usability of the risk scores in prioritization and planning. b. The average is taken to normalize to a common scale from 0 to 1 so that the metrics can be implemented into the total risk without any circuit disproportionally influencing the final score. c. The formula for PEDS Outage Likelihood is: 1−(1−(Avg APF x Probability of 95th Percentile Weather))Count of Assets A sample calculation using hypothetical values is: • Average Probability of Asset Failure (Avg APF) = 0.02 • Probability of 95th Percentile Weather = 0.05 • Count of Assets on the Circuit = 50 1 – (1 – (.02 x .05))50 = 0.0488 d. Liberty uses a PSPS safety factor of 1.5×10^{-9} fatalities per 30 minutes of Customer Minutes Interrupted (CMI) to quantify the safety consequence of PSPS events in its Multi-Attribute Value Function (MAVF) model. The safety factor reflects the statistical likelihood of fatality due to power outages, particularly for vulnerable populations such as medical baseline or critical infrastructure customers. The safety factor enables Liberty to incorporate human impact into its PSPS risk modeling in a consistent, data-driven manner. It supports the calculation of expected fatalities as part of the safety attribute in the MAVF framework, which is then combined with reliability and financial impacts to produce a normalized risk score. e. The PSPS safety multiplier equation was developed for Liberty by Arup, a risk modeling	Jessica McHale	7/8/2025	7/11/2024	7/16/2025	https://california.libertyutilities.com/uploads/Liberty%20Response%20to%20DR%20No.%20OEIS-P-WMP_2025-Liberty-003.pdf			No	5	Risk Methodology and Assessment	
3	OEIS	3	OEIS-P-WMP_2025-Liberty-003	6	OEIS-003-Q06	Regarding Population Impact: On page 45 of Liberty's 2026-2028 Base WMP, the Safety Consequence for wildfire is listed as dependent on "Population Impact: the total population impacted by the simulation footprint" from Technosylva. In the Risk Modeling Working Group, other utilities have discussed using a linear multiplier to estimate fatalities per building destroyed within the simulation footprint. a. Is Liberty planning on estimating fatalities as part of measuring the population impact? i. If so, provide a plan or timeline for how Liberty will shift to estimating fatalities in the wildfire safety consequence. ii. If not, explain why, including how such impacts are captured within Liberty's current risk assessment methodologies.	a. Liberty uses a linear approach of 1 fatality per 260 buildings structures destroyed in its MAVF model. i. Liberty is not currently planning to estimate fatalities based on population impact. ii. Fatalities are estimated using a linear multiplier applied to the number of structures destroyed within the wildfire simulation footprint. There is no plan or timeline to shift to a population-based fatality estimation method. The population impact metric is used to inform consequence severity but is not used directly in the fatality calculation.	Jessica McHale	7/8/2025	7/11/2024	7/16/2025	https://california.libertyutilities.com/uploads/Liberty%20Response%20to%20DR%20No.%20OEIS-P-WMP_2025-Liberty-003.pdf			No	5	Risk Methodology and Assessment	
3	OEIS	3	OEIS-P-WMP_2025-Liberty-003	7	OEIS-003-Q07	Regarding Risk Spend Efficiency: On page 50 of Liberty's 2026-2028 Base WMP, the Risk spend efficiency is listed as APF*ACF. a. Is the ACF the same as the consequence described on page 36 of the Direxyon report? i. If not, describe how the two differ. b. Describe why this consequence calculation is used for the risk spend efficiency instead of the wildfire consequence.	a. Yes b. Liberty uses Consequence of Failure (ACF) in its Risk Spend Efficiency (RSE) calculation rather than wildfire consequence because RSE is designed to evaluate the cost-effectiveness of asset-level mitigations. This consequence is localized and asset-specific, making it appropriate for evaluating individual mitigation actions. In contrast, wildfire consequence is derived from fire simulation models and reflects system-level impacts, which are not directly attributable to a single asset.	Jessica McHale	7/8/2025	7/11/2024	7/16/2025	https://california.libertyutilities.com/uploads/Liberty%20Response%20to%20DR%20No.%20OEIS-P-WMP_2025-Liberty-003.pdf			No	5	Risk Methodology and Assessment	
3	OEIS	3	OEIS-P-WMP_2025-Liberty-003	8	OEIS-003-Q08	Regarding Vegetation Risk: On page 79 of Liberty's 2026-2028 Base WMP, it states that "DRAT incorporates vegetation as a separate asset." a. Describe how vegetation is seen as an "asset" that has a "quantified risk score."	a. Within DRAT, the term "asset type" is used to describe items that are calculated into the risk score through a separate module. Vegetation is one of these modules allowing it to be analyzed using the same methodology as traditional utility assets. Although vegetation is not a utility asset, it is treated as such in terms of inspection, maintenance, and its potential to degrade system reliability. Each vegetation segment is assigned a risk score based on factors like proximity to energized equipment, tree density, and historical inspection and maintenance data. This score incorporates the likelihood of vegetation contacting electrical infrastructure, the probability of ignition under given conditions, and the potential consequences of an ignition. By quantifying vegetation-related wildfire risk in this way, Liberty can effectively prioritize mitigation efforts, assess the impact of vegetation management initiatives, and support cost-efficiency analyses for vegetation management strategies.	Jessica McHale	7/8/2025	7/11/2024	7/16/2025	https://california.libertyutilities.com/uploads/Liberty%20Response%20to%20DR%20No.%20OEIS-P-WMP_2025-Liberty-003.pdf			No	5	Risk Methodology and Assessment	
4	OEIS	4	OEIS-P-WMP_2025-Liberty-004	1	OEIS-004-Q01	Regarding Judgmental Sampling for Vegetation Management Quality Control Audits: On page 2 of its Post Work Verification Procedure, Liberty indicates that "QC inspections for VM are based on judgmental sampling and not 100% inspection. Judgment is used to prioritize QC resource allocation based on risk." a. When performing judgmental sampling, what factors make it more or less likely that a specific tree, circuit mile, or pole will be selected to audit for QC? Provide a detailed description of the process of Liberty's judgmental sampling for each of the following activities Liberty audits: i. Completed Tree Work ii. Detailed Inspections iii. Hazard Tree Work iv. Pole Clearing b. Stratified random sampling ensures that a sample is representative even if it comes from a non-uniform population (e.g., when there are unequal miles within each HFTD Tier, or if one tree crew performs more work than another). Explain why Liberty uses judgmental sampling as opposed to stratified random sampling.	a. QC inspections are assigned to the QC contractor by Liberty Vegetation Management upon work completion or completion of a reasonable work sample size prior to the planned QC inspection. Liberty considers various factors when QC work packages are assigned including project schedule and timing of work, region, circuit, population (number of trees, poles, or work orders), local known conditions, vegetation characteristics, HFTD, vendor trends and performance, circuit and section mileage, type of review, and other factors. i. Completed Tree Work – Liberty assigns QC of Completed Tree Work of work packages that are completed by the tree contractor through the project schedule, typically January through June. Liberty assigns entire circuits, or sections of circuits, for QC based on the criteria described above. Every completed work order for the Clearance initiative is evaluated for the QC assignment. ii. Detailed Inspections – Liberty assigns QC of Detailed Inspections of circuits, sections of circuits, or a reasonable work sample size that are completed by vegetation management inspections. QC of Detailed Inspections occur through the calendar year. QC of Detailed Inspections are assigned based on the criteria described above. All spans and work orders created by VM inspectors in the QC sample are evaluated. iii. Hazard Tree Work – Liberty assigns QC of Hazard Tree Work of completed Fall-In Mitigation work. Liberty assigns entire circuits, or sections of circuits, for QC based on the criteria described above. Completed work orders for trees removed for the Fall-In Mitigation initiative are evaluated. iv. Pole Clearing – Liberty assigns QC of Pole Clearing throughout the service territory based on the criteria described above. Liberty has conducted random sampling of completed pole clearing work as needed. b. Liberty utilizes judgement sampling to enhance effectiveness of its quality control processes. By leveraging the knowledge of subject matter experts, QC inspections are proactively directed towards the VM programs current priorities, areas of improvement, and regions of interest. This approach allows for real-time adaptation of QC inspections based on operational insights, historical trends, and on-going program development.	Jessica McHale	7/11/2025	7/16/2025	7/16/2025	https://california.libertyutilities.com/uploads/Liberty%20Response%20to%20DR%20No.%20OEIS-P-WMP_2025-Liberty-004.pdf			No	9	Vegetation Management and Inspections	
4	OEIS	4	OEIS-P-WMP_2025-Liberty-004	2	OEIS-004-Q02	Regarding Quality Control Sample Units: On page 201 of its 2026-2028 Base WMP, Liberty indicates that the "Population/Sample Unit" for "Completed Tree Work" and "Detailed Inspections" is "Annual Circuit Miles." On page 204, Liberty indicates the "Sample Unit" for "Completed Tree Work" and "Detailed Inspections" is a "Single Tree." On page 204 Liberty lists "Completed Tree Work Criteria," and on pages 204 and 205 Liberty lists "VM Detailed Inspections Criteria." It is unclear how "criteria," "Single Tree[s]," and "Annual Circuit Miles" generate pass rates that Liberty will compare to the "Target Pass Rate[s]" it includes in "Table 9-21: Vegetation Management QA and QC Activity Targets." a. Provide an example calculation showing all steps of how Liberty calculates audit pass rates using criteria, single trees, and annual circuit miles. Provide separate example calculations for each of the following activities being audited: i. Completed Tree Work ii. VM Detailed Inspections	a. Liberty uses the criteria in Table 9-25, Table 9-26, Table 9-27, and Table 9-28 when evaluating pass rates for each Work Type. The pass rates are averaged for all conditions evaluated. (See response for tables)	Jessica McHale	7/11/2025	7/16/2025	7/16/2025	https://california.libertyutilities.com/uploads/Liberty%20Response%20to%20DR%20No.%20OEIS-P-WMP_2025-Liberty-004.pdf			No	9	Vegetation Management and Inspections	
4	OEIS	4	OEIS-P-WMP_2025-Liberty-004	3	OEIS-004-Q03	Regarding Annual Substation Defensible Space Inspections: On page 234 of its 2023–2025 Base WMP, Liberty states that "a minimum of two site visits will occur per facility, per year." On page 186 of its 2026–2028 Base WMP, Liberty states that "generally, two site visits will occur per facility, per year." a. Explain why Liberty changes its commitment to inspect substations for defensible space from "a minimum of two site visits" per year to "generally, two site visits" per year. b. Describe factors that would contribute to substation inspections occurring: i. Less often than two times per year. ii. More often or equal to two times per year.	a. Liberty conducts defensible space inspections on each substation annually, with the goal of two site visits per year. While this is the intended schedule, Liberty determined it is necessary to account for factors outside of its control that can impact its ability to inspect and perform the substation treatment. b. Contributing factors. i. Factors such as weather, access issues, and operational constraints can contribute to substation inspections being conducted less than twice per year. ii. Liberty does not plan to perform substation defensible space inspections more frequently than twice a year.	Jessica McHale	7/11/2025	7/16/2025	7/16/2025	https://california.libertyutilities.com/uploads/Liberty%20Response%20to%20DR%20No.%20OEIS-P-WMP_2025-Liberty-004.pdf			No	9	Vegetation Management and Inspections	
4	OEIS	4	OEIS-P-WMP_2025-Liberty-004	4	OEIS-004-Q04	Regarding Annual LiDAR Inspections of Overhead Distribution and Transmission System In its response to OEIS-P-WMP_2025-Liberty-001, question 01, Liberty states that it "intends to complete LiDAR inspections of the total overhead primary distribution and transmission system annually." a. What type of raw and processed data are provided to Liberty by this process? (ex. Point cloud data, orthoimagery, geospatial vector data, inspection reports) b. What type of analysis outputs are provided to Liberty by this process? (ex. Vegetation encroachment distance, clearance violation counts per span, growth rate projections, risk scoring layers integrating vegetation, asset condition, and terrain) c. How is LiDAR data integrated with Liberty's GIS system? d. Does Liberty's vegetation management and/or inspection systems ingest LiDAR data directly? e. How is LiDAR data incorporated into Liberty's Probability of Ignition (POI) or Probability of Consequence (POC) models? f. Does Liberty use LiDAR derived growth models to project future encroachments or work needs? g. What department owns and governs the LiDAR data internally within Liberty? (e.g., Vegetation, IT, Asset Management, a cross-functional group) h. How long is LiDAR data retained, and what is Liberty's plan for historical comparison or trend analysis? i. Are third-party vendors involved in LiDAR data analysis, and if so, how is data integrity validated?	a. LiDAR data provided: • LiDAR point cloud in .las format • ESRI database o Conductor vectors with locations displayed with cartographic properties representing conductor position relative to tower/poles o Rectified structure and span locations o Vegetation segmentation attributed with clearance detections (fall-in, grow-in analysis) • Satellite Imagery Tree Health Monitoring • Point Cloud data • Software b. Locations of poles, structures and conductor vectors are identified and used to analyze adjacent vegetation. Wire vectors are created from the LiDAR point cloud, stringing a curved vector from points on the structure or pole. Vegetation at six feet and above ground level is segmented to represent tree crowns, with each tree assigned a unique Tree ID. Deliverables include tree-top points for all trees and vegetation polygons for detection trees. Vegetation clearance analysis identifies vegetation that may grow into or fall onto transmission or distribution conductors. It uses tree height data, catenary models, and voltage-specific clearance thresholds to categorize the encroachments and fall-ins. Proprietary software calculates radial clearance distances from each point in the feature-coded point cloud. Reporting includes fall-ins within a 300-foot corridor and grow-ins/overhangs within a 100-foot ROW. (See response for tables). Liberty uses satellite imagery to monitor tree health along power lines. Through analysis of satellite imagery over time, changes in vegetation health are detected through annual measurements of chlorophyll content. These measurements are compared to a baseline from the initial analysis to identify deviations, which are then aggregated by span and classified into high, medium, or low vegetation stress levels. The results are processed into heat maps that visually highlight areas of concern. Updates are provided semi-annually or on a circuit-by-circuit basis as needed. c. LiDAR data is used to conflate Liberty's GIS data to update spatial locations of assets as	Jessica McHale	7/11/2025	7/16/2025	7/16/2025	https://california.libertyutilities.com/uploads/Liberty%20Response%20to%20DR%20No.%20OEIS-P-WMP_2025-Liberty-004.pdf			No	9	Vegetation Management and Inspections	
5	OEIS	5	OEIS-P-WMP_2025-Liberty-005	1	OEIS-005-Q01	Regarding wildfire and outage program risk: a.Provide the name, wildfire risk, outage program risk, and length (in circuit miles), of each circuit in Liberty's system in the following format: (TABLE)	See DR attachment for table response.	Jessica McHale	7/15/2025	7/18/2025			1		No	5	Risk Methodology and Assessment	

6	CPUC - SPD	6	SPD-LIB-WMP2026-001	1	SPD-001-Q01	In its GRC, Liberty proposed undergrounding 0.4 miles on the Stateline 2300 circuit in 2026. This work is currently not reflected in Table 8-1 of the 2026-28 Base WMP. Is the undergrounding proposed in Liberty's GRC on the Stateline 2300 circuit ongoing work from a previous WMP? Explain. a. Since Liberty does not intend to include undergrounding in the 2026-2028 Base WMP, how is it intending to shift budget resources to address Outage Program Risk?		Konstantin Lavor	7/11/2025	7/17/2025					No	8	Grid Design, Operations, and Maintenance	
6	CPUC - SPD	6	SPD-LIB-WMP2026-001	2	SPD-001-Q02	Provide an explanation of how Liberty calculated the three Activity Effectiveness (i.e. Overall Risk, Wildfire Risk and Outage Program Risk) values in Table 6-4. a. Provide a detailed step-by-step explanation of how Liberty calculated these three values for: i. Grid monitoring systems ii. Equipment settings to reduce wildfire risk iii. Expulsion fuse replacement iv. Distribution pole replacements and reinforcements v. Undergrounding of electric lines and/or equipment vi. Covered conductor installation b. Provide all supporting workpapers that Liberty used to arrive at the 18 values calculated in response to Question 2a. c. Explain why undergrounding exhibits a positive activity effectiveness for wildfire risk. d. Explain why covered conductor exhibits a positive activity effectiveness for outage program risk.		Konstantin Lavor	7/11/2025	7/17/2025					No	6	Wildfire Mitigation Strategy Development	
6	CPUC - SPD	6	SPD-LIB-WMP2026-001	3	SPD-001-Q03	In its response to Area of Continued Improvement (ACI) LU-23B-06, Liberty argues that "Traditional overhead hardening in combination with SRP provides the best Risk Spend Efficiency when compared to covered conductor and undergrounding." a. In Table 1-2 of ACI LU-23B-06, explain how the "Benefit" field was calculated. b. Explain why does Table 1-2 presents "Benefit", but Table 1-3 in ACI LU-25U-04 presents "Benefit (%) / Cost (Million $)". c. Liberty indicates that traditional hardening in combination with System Relay Profile (SRP) provides the highest benefit of any mitigation. Table 8-1 states that Liberty will be doing 3.3 miles of traditional hardening. How many of these 3.3 miles will also be enabled with SRP? i. This new 2026-2028 target of traditional hardening is nearly three times less than was targeted during the 2023-2025 WMP (9.5 miles). Considering that traditional hardening in combination with SRP provides the highest benefit, why has Liberty reduced traditional hardening in its 2026-2028 Base WMP?		Konstantin Lavor	7/11/2025	7/17/2025					No	Appendix D	Areas for Continued Improvement	
6	CPUC - SPD	6	SPD-LIB-WMP2026-001	4	SPD-001-Q04	Table 8-1 of the 2026-2028 Base WMP states that Liberty is targeting 1200 distribution pole replacements and reinforcements. This 2026-2028 target is approximately 200 more poles than was targeted in the 2023-2025 WMP. Why has Liberty increased distribution pole replacements and reinforcements in its 2026-2028 Base WMP?		Konstantin Lavor	7/11/2025	7/17/2025					No	8	Grid Design, Operations, and Maintenance	
6	CPUC - SPD	6	SPD-LIB-WMP2026-001	5	SPD-001-Q05	Liberty estimates that the reliability impact of the PSPS risk is equivalent to 4.234 million Customer Minutes of Interruption (CMI). The two formulas used to arrive at this value CMI=PSPS Consequence-Reliability and Customer Count-Importation * Average PSPS Duration (Minute)= CMI. a. In the first formula, explain what is meant by PSPS Consequence-Reliability. b. In the second formula, explain what is meant by Importation. c. In the second formula, explain how Liberty calculated Average PSPS Duration (Minute). d. Provide all datasets used to arrive at the calculation of 4.234 million CMI.		Konstantin Lavor	7/11/2025	7/17/2025					No	5	Risk Methodology and Assessment	
6	CPUC - SPD	6	SPD-LIB-WMP2026-001	6	SPD-001-Q06	On page 47 of the 2026-2028 Base WMP, Liberty estimates that the financial impact of each customer minute interrupted due to PSPS at $0.17/CMI. a. Explain how does Liberty arrive at this value of $0.17/CMI. i. Provide all datasets and workpapers that support this valuation.		Konstantin Lavor	7/11/2025	7/17/2025					No	5	Risk Methodology and Assessment	
6	CPUC - SPD	6	SPD-LIB-WMP2026-001	7	SPD-001-Q07	On page 48, Liberty also estimates that the financial impact of each customer minute interrupted due to SRP at $0.17/CMI. a. Does Liberty use the same method to estimate to estimate the financial impact of SRP as it does for PSPS (see Question 6a.)? i. If so, explain why. ii. If not, explain how the methods differ and provide all datasets and workpapers that were used to support the valuation of financial impact for SRP.		Konstantin Lavor	7/11/2025	7/17/2025					No	5	Risk Methodology and Assessment	
6	CPUC - SPD	6	SPD-LIB-WMP2026-001	8	SPD-001-Q08	Provide the datasets that were used to create Table 6-1. This must be presented at the circuit segment level for all four circuits found in Table 6-1. This should include the following variables based on Figure 5-2: a.Overall Utility Risk b.Wildfire Risk c.Probability of Fire i.Probability of Ignition ii.Probability of Asset Failure iii.Probability Outage d.Consequence of Fire i. Population Impact		Konstantin Lavor	7/11/2025	7/17/2025					No	6	Wildfire Mitigation Strategy Development	
6	CPUC - SPD	6	SPD-LIB-WMP2026-001	9	SPD-001-Q09	On page 86 of the 2026-2028 Base WMP, Liberty notes that Table 6-1 includes circuits contributing greater than or equal to 1% of Overall Utility Risk. According to Liberty's Quarterly Data Reports, the TAH7200 circuit is in HFTD Tier 2 and represents about 0.42% (~8.8 miles total) of Liberty's grid. SPD calculated that this circuit experienced 14 unplanned outages, representing over 3.1M in CMI in 2024 and the first 3 months of 2025 (15 months total). a.Explain how Liberty determined that TAH7200 exhibits no wildfire ignition risk or outage program risk.		Konstantin Lavor	7/11/2025	7/17/2025					No	6	Wildfire Mitigation Strategy Development	
6	CPUC - SPD	6	SPD-LIB-WMP2026-001	10	SPD-001-Q10	On page 49 of the 2026-2028 Base WMP, Liberty indicates that Utility Risk ("UR") is calculated using the formula: (PSPS Risk + Fire Risk)/2 = UR a.Explain why Liberty divides the sum of PSPS Risk and Fire Risk by two. b.Explain why Liberty only includes the PSPS Risk portion of Outage Program Risk when calculating Utility Risk. c.Explain why in the formula of Outage Program Risk Liberty divides the sum of SRP Outage Risk and PSPS Risk by two. d.Does Asset Failure Risk contribute to the calculation of Utility Risk? i. If so, explain how. ii. If not, explain why not. iii. Explain why Figure 5-2 shows Asset Failure Risk contributing to Utility Risk, but the formula on page 49 does not include Asset Failure Risk.		Konstantin Lavor	7/11/2025	7/17/2025					No	5	Risk Methodology and Assessment	
6	CPUC - SPD	6	SPD-LIB-WMP2026-001	11	SPD-001-Q11	In response to ACI LU-25U-06, Liberty states that it conducted 0.1 miles of fixed wing drone infrared inspections on its transmission assets. a.Provide data of exactly where these inspections happened, and include the following: i. Circuit Segment ID ii. Circuit ID iii. Latitude iv. Longitude v. Date vi. Cost b.Explain why Liberty does not plan to conduct additional infrared inspections during the 2026-2028 WMP cycle.		Konstantin Lavor	7/11/2025	7/17/2025					No	Appendix D	Areas for Continued Improvement	
6	CPUC - SPD	6	SPD-LIB-WMP2026-001	12	SPD-001-Q12	Provide a copy of Liberty's procedures/checklist(s) for conducting detailed inspections of distribution electric lines and equipment (WMP-GDOM-AI-01) and patrol inspections of distribution electric lines and equipment (WMP-GDOM-AI-03).		Konstantin Lavor	7/11/2025	7/17/2025					No	8	Grid Design, Operations, and Maintenance	
6	CPUC - SPD	6	SPD-LIB-WMP2026-001	13	SPD-001-Q13	Provide a dataset of all detailed inspections of distribution electric lines and equipment (WMP-GDOM-AI-01) and patrol inspections of distribution electric lines and equipment (WMP-GDOM-AI-03) that were conducted from 2023-2025. The dataset at a minimum must include: a.Inspection ID b.Circuit Segment ID c.Circuit ID d.Voltage e.Start Point Latitude f.Start Point Longitude g.End Point Latitude h.End Point Longitude i.Date j.Cost k.Detailed Findings		Konstantin Lavor	7/11/2025	7/17/2025					No	8	Grid Design, Operations, and Maintenance	