

Application No.: A.21-  
Exhibit No.: Liberty-07  
Witnesses: Peter Stoltman



(U 933-E)

## **2022 General Rate Case**

Before the California Public Utilities Commission

### **Chapter 7: Vegetation Management Program**

Tahoe Vista, California

May 28, 2021

# Liberty-07: Vegetation Management

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1 I.

2 **VEGETATION MANAGEMENT PROGRAM**

3 **A. Introduction**

4 **1. Scope and Purpose**

5 Presented in this chapter is Liberty Utilities (CalPeco Electric) LLC’s (“Liberty”) test  
6 year 2022 O&M expense forecast for its Transmission and Distribution Vegetation Management  
7 (VM) Program. Prior to this rate case, all vegetation management costs were authorized in GRC  
8 proceedings and given balancing account treatment where authorized annual VM revenues were  
9 tracked against recorded program expenses.<sup>1</sup> In the 2019 GRC, Liberty’s authorized recovery  
10 for its VM program was a mere \$3 million per year over the GRC cycle and was significantly  
11 lower than recorded 2020 vegetation management costs of \$11.4 million. With the increased  
12 scrutiny for enhanced vegetation management efforts mandated by the California Public Utilities  
13 Commission (CPUC) for wildfire mitigation, Liberty has made significant strides in recent years  
14 to develop and fully implement a comprehensive vegetation management program inclusive of  
15 wildfire mitigation enhancements that are not reflected in current authorized revenues. Impacts  
16 of state legislation, including Senate Bill (SB) 247, on Liberty’s VM program are described in  
17 detail in this testimony. Liberty has also included the work associated with the Catastrophic  
18 Event Memorandum Account (CEMA) in this GRC request. A detailed description of CEMA  
19 and the associated costs are included in this testimony. In this GRC, Liberty requests that the  
20 Commission find all vegetation management-related O&M forecast expenses to be reasonable  
21 and approve them, as VM is an integral part of Liberty’s wildfire mitigation plan.

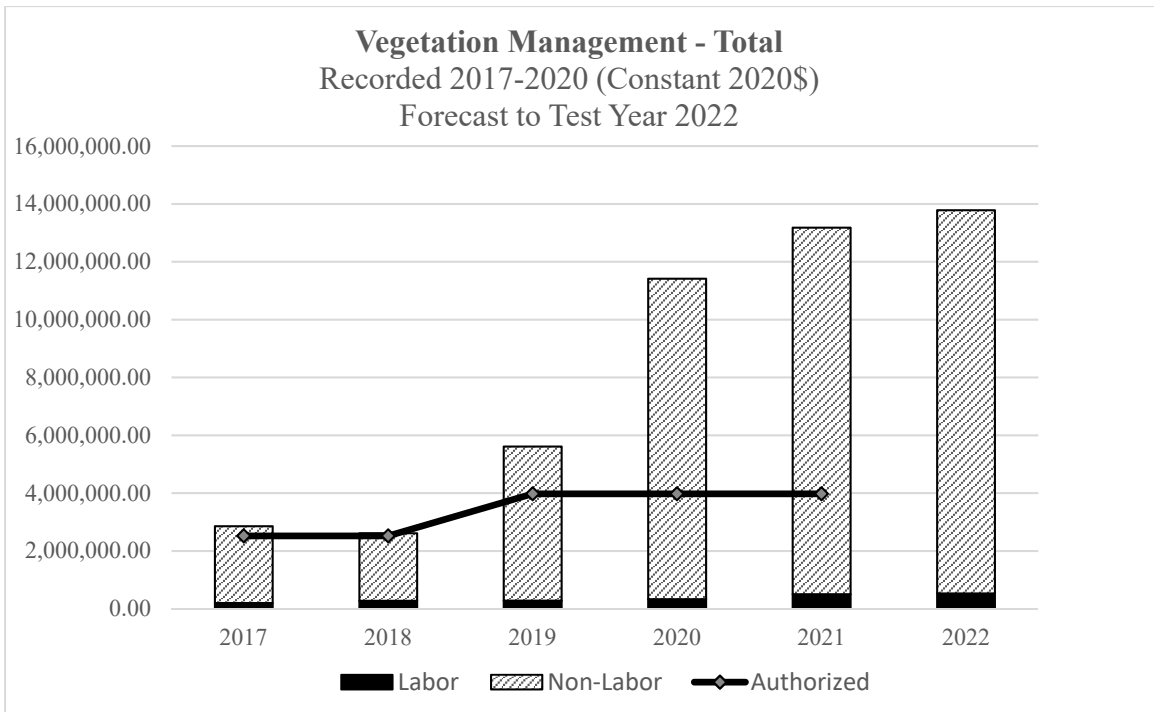
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<sup>1</sup> See D.16-12-024 for 2016 authorized VM expenses and D.20-08-030 for the 2019 GRC approved VM costs. Liberty currently records VM expenses in either the Vegetation Management Balancing Account (“VMBA”) or the Wildfire Mitigation Plan Memorandum Account (“WMPMA”)

1           **2.     Summary of O&M Request**

2           Liberty requests \$13.8 million for 2022 test year O&M expense above the 2020 recorded  
3 amount of \$11.4 million, or a 21% increase. See Table 7-1 for a comparison of recorded and  
4 expected vegetation management costs in this GRC request.<sup>2</sup>

**Figure 7-1**  
**Recorded (2017-2020) and Forecast (2021-2022) Cost Summary**



5           **3.     Support for Request**

6           Liberty’s expense forecast for the VM Program is reasonable and fully justified because  
7 the work is necessary to do the following:

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<sup>2</sup> Although they are shown in Table I-1, Liberty is not requesting O&M expense for incurred expenses above authorized levels prior to test year 2022 in this GRC. Liberty plans to file a separate cost recovery application for VM and WMP-related incremental expenses recorded and tracked through the end of 2021.

- 1 • Enhance public safety and community safety by further reducing wildfire risk,  
2 risk of power outages, wires down, and fires caused by trees growing or  
3 falling into high-voltage lines;
- 4 • Maintain electric system reliability and comply with vegetation-related  
5 regulations;
- 6 • Maintain work quality through Liberty’s Quality Control Program; and
- 7 • Comply with environmental regulations while performing VM activities.

8 **B. Program Description**

9 **1. Program Overview**

10 Public safety and providing safe and reliable service to customers is at the forefront for  
11 Liberty. Because Liberty’s service territory is mountainous and densely-forested and includes  
12 remote and other inaccessible areas, Liberty has focused on creating a proactive and cost-  
13 effective vegetation management program in order to continue providing safe and reliable  
14 service. Liberty’s vegetation management program is especially important, considering the  
15 catastrophic damage that can be caused from forest fires in its service territory. Risk-based  
16 assessment of Liberty’s current vegetation management program has demonstrated the need for  
17 process improvements to further mitigate the risk of fires by (1) increasing efforts to manage  
18 community and environmental impacts, (2) completing detailed inspections of vegetation, (3)  
19 implementing processes to reduce slash, (4) implementing LiDAR inspections, (5) identifying  
20 hazard trees via inspections, (6) establishing a quality assurance/quality control program, (7)  
21 remediating at-risk species, (8) removing and remediating trees with strike potential, and (9)  
22 achieving appropriate clearances around electric lines and structures. Liberty continues to



1 increase investments in its vegetation management program to better serve its community and  
2 reduce the risk of wildfires in its service territory.

3 Historically, Liberty has focused on a cycle-based approach with comprehensive  
4 vegetation inspection protocols in place. This approach was designed to identify and remediate  
5 at-risk species while also working to achieve appropriate clearances around electric lines and  
6 structures. These comprehensive inspections are effective at reducing inspection frequency but  
7 can increase the duration between performing a vegetation inspection and completing the  
8 associated tree work. Liberty recognized a need to perform more frequent inspections of  
9 vegetation-to-conductor clearances and to decrease the duration between performing those  
10 inspections and completing tree work to maintain clearances around electric lines and equipment.  
11 With the successful introduction of LiDAR inspections in its South Lake Tahoe region, Liberty  
12 is augmenting its VM program by performing annual LiDAR inspections of overhead  
13 transmission and high-voltage distribution conductors to maintain vegetation clearance distances  
14 while continuing to perform cyclical, ground-based, and detailed inspections to remediate at-risk  
15 species.

## 16 **2. Management Structure**

17 Liberty's vegetation management program consists of a centralized work group with  
18 standardized processes and procedures to plan annual maintenance work. The VM program is  
19 managed by Liberty employees, consisting of one manager responsible for program oversight,  
20 three system arborists responsible for VM project management, and one coordinator responsible  
21 for various tasks related to program administration. The majority of vegetation inspections are  
22 performed by contracted utility arborists and foresters, and all vegetation pruning and removal is  
23 completed by contracted tree crews. With the increase of VM activities being performed to

1 reduce the risk of catastrophic wildfire, Liberty has hired additional consultants to assist with the  
2 management of projects focused on increasing efforts to manage community and environmental  
3 impacts and implementing processes for fuel management and reduction of slash.

4 **3. Risk Exposure**

5 In recent years, California wildfires have become more intense and more devastating than  
6 previously experienced. California's climate is trending toward longer, hotter, and drier fire  
7 seasons, which has created an urgency for state legislators and utilities to take action to prevent  
8 recurring devastation. In order to reduce the risk of wildfires resulting from utility operations,  
9 regulatory oversight of vegetation management programs has increased significantly. Fire safety  
10 regulations are now focused on the high fire-threat districts (HFTD) throughout California.  
11 More than 90% of Liberty's overhead system is located within HFTD, as defined by the CPUC.  
12 In order to minimize the risk of fires related to utility operations, Liberty has implemented a  
13 number of changes to its vegetation management program that will reduce the likelihood of a  
14 vegetation related fire. The vegetation management plans and procedures that have been  
15 implemented by Liberty are described in Section D.

16 **C. Senate Bill 247**

17 **1. Introduction**

18 This testimony describes how 2019 state legislation, SB 247, and the resulting increase in  
19 contractor labor rates have impacted Liberty's 2022 GRC vegetation management forecast.

20 On October 2, 2019, Governor Newsom signed SB 247 into law, effective January 1,  
21 2020. Section 8386.6 was added to the Public Utilities Code and provides:

22 (a) All electrical line clearance tree trimmers performing work to  
23 comply with the vegetation management requirements in an  
24 electrical corporation's wildfire mitigation plan shall be qualified  
25 line clearance tree trimmers, or trainees under the direct supervision  
26 and instruction of qualified line clearance tree trimmers, as provided

1 in the High-Voltage Electrical Safety Orders (Group 2 (commencing  
2 with Section 2700) of Subchapter 5 of Chapter 4 of Division 1 of  
3 Title 8 of the California Code of Regulations) of the Department of  
4 Industrial Relations.

5  
6 (b) All qualified line clearance tree trimmers shall be paid no less  
7 than the prevailing wage rate for a first period apprentice electrical  
8 utility lineman as determined by the Director of Industrial Relations.

9 The codification of SB 247 not only mandated a rate increase for qualified line clearance  
10 tree trimmers, but it also triggered renegotiations between Liberty’s vendors and the local IBEW.  
11 These renegotiations resulted in the aforementioned wage increases, as well as paid time off,  
12 overtime, training, and other benefits—the costs of which are all passed along to Liberty.

13 **2. Background**

14 Liberty relies on contractor crews to perform its vegetation management activities.  
15 Contracts with Liberty’s vegetation management vendors are renegotiated annually. For year  
16 2020, Liberty experienced significant vegetation management cost increases because of increases  
17 in labor costs.

18 Unit rates for tree pruning and removal have increased significantly since the  
19 implementation of SB 247. The unit rate increases are as a result of wage increases, as well as  
20 paid time off, overtime, training, and other benefits.

21 **3. Summary of Cost Increases**

22 The tables below show the impacts of SB 247 on new and renegotiated contracts. SB 247  
23 resulted in an average<sup>3</sup> increase of 136% for tree pruned units and an average increase of 155%  
24 for tree removal units from 2019 to 2020.

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<sup>3</sup> The averages include the contract costs for all tree pruning and tree removal unit types

**Table 7-1**  
**Unit Price Contract Costs**

<b>Unit Price Contract Costs</b> <b>(% Represents Increase from Prior Year)</b>			
<b>Year</b>	<b>2019</b>	<b>2020</b>	<b>% Increase</b>
Tree Pruned	73.37	172.99	136%
Tree Removed	458.49	1167.44	155%

1            Table 7-3 represents the actual annual increase for all vegetation management contract  
2 costs from 2019 to 2020 and the forecasted annual increases for 2021 and 2022.

**Table 7-2**  
**All Contract Costs**

<b>All Contract Costs</b> <b>(% Represents Increase from Prior Year)</b>			
<b>Recorded and Adjusted</b> <b>(Constant 2020\$)</b>		<b>Forecast</b>	
2019	2020	2021	2022
5,327,344	11,080,860	12,675,333	13,252,265
-	108.0%	14.4%	4.6%

3    **D.    Current VM Plans and Procedures**

4            The following provides descriptions of the VM program plans and procedures currently  
5 in place to manage and provided oversight of Liberty’s VM Program. The VM Program Manual  
6 (VM-01)—which describes roles and responsibilities, program objectives, and a description of  
7 the program plans and procedures—is under development.

8            **1.    Vegetation Management Plan (VM-02)**

9            The Liberty Vegetation Management Plan (VMP) is designed to improve the reliability of  
10 Liberty’s Transmission and Distribution systems and to comply with regulatory requirements  
11 established by the CPUC General Order (G.O.) 95, California Public Resource Codes (PRC), and  
12 Title 14 California Code of Regulations (CCR) by establishing maintenance and inspection  
13 procedures to do the following:

- 1           • Manage vegetation to prevent vegetation encroachment into the clearance  
2           zones under normal conditions as stated in the following regulations, as  
3           applicable.
  - 4           ○ G.O. 95, Rule 35 (Case 13 and Case 14)
  - 5           ○ PRC Section 4292
  - 6           ○ PRC Section 4293
  - 7           ○ CCR Sections 1250-1258
- 8           • Document maintenance procedures and processes used to manage vegetation  
9           to prevent the encroachment into the clearances described in the regulations  
10          noted above.
- 11          • Include consideration of (1) conductor movement (line dynamics); (2)  
12          vegetation movement during high winds (tree dynamics); and (3)  
13          interrelationships between vegetation growth rates, control methods, and  
14          inspection frequency.
- 15          • Provide timely notification to appropriate VM personnel of vegetation  
16          conditions that could cause a flash-over or fault, as described in VM-05  
17          (Vegetation Threat Procedure).
- 18          • Identify, document, and mitigate trees located within the Utility Strike Zone  
19          (USZ) and are expected to pose a risk to electric facilities, as described in  
20          VM-03 (Hazard Tree Management Plan).
- 21          • Implement corrective actions to prevent encroachments into the clearance  
22          distances described in the regulations noted above due to work constraints.
- 23          • Inspect vegetation conditions annually or more frequently, as needed.

- 1 • Complete the annual work needed to prevent encroachments into the clearance  
2 distances described in the regulations noted above.

3 In addition to complying with the stated regulations above, Liberty’s program is designed  
4 with the following objectives:

- 5 • Establish proper guidelines and methodologies to promote best management  
6 practice in the maintenance of vegetation under or near power lines and poles.
- 7 • Follow guidelines and methodologies to minimize dangers to the public,  
8 vegetation management workers, and electrical maintenance workers.
- 9 • Detail responsibilities for maintaining clearance between utility structures and  
10 vegetation.
- 11 • Improve system reliability by reducing vegetation related interruptions to the  
12 electricity supply.
- 13 • Reduce risk of fires caused by trees coming into contact with electric  
14 facilities.
- 15 • Reduce risk of vegetation causing damage to, or interfering with, electrical  
16 facilities.

17 **2. Hazard Tree Management Plan (VM-03)**

18 The purpose of the Hazard Tree Management Plan (HTMP) is to identify, document, and  
19 mitigate trees located within the USZ and are expected to pose a risk to electric facilities based  
20 on the tree’s observed structural condition and site considerations.

1           **3.     Post Work Verification Procedure (VM-04)**

2           The purpose of this procedure is to define the VM Program oversight requirements used  
3 to provide reasonable assurance Liberty is meeting the applicable requirements pertaining to  
4 VM.

5           Liberty VM maintains and implements a robust scheduling process, which meet  
6 mandated compliance inspection requirements, as applicable. Maintenance work (pre-inspection,  
7 pruning and removal) is performed by non-Liberty resources (contractors). The oversight  
8 described in this procedure is intended to provide several levels of defense-in-depth strategy in  
9 order to provide reasonable assurance that inspection and maintenance work is being performed  
10 effectively.

11           **4.     Vegetation Threat Procedure (VM-05)**

12           The Vegetation Threat Procedure identifies the methods of prioritization for identified  
13 threats on the Liberty system that are discovered through implementation of the VM Program’s  
14 Hazard Tree Management Plan (VM-03) and Vegetation Management Plan (VM-02). Identified  
15 vegetation threats to public safety and/or electric system reliability are mitigated in accordance  
16 with this procedure. Qualified Observers identify potential vegetation threats and follow this  
17 procedure for the appropriate mitigation action(s).

18 **E.     Activities and Cost**

***Table 7-3  
2022 Vegetation Management Cost Summary***

<b>Activity</b>	<b>Description</b>	<b>Contract Cost</b>	<b>Admin Cost</b>	<b>Total Cost</b>
1	Manage Community and Environmental Impacts	742,240	29,860	772,100
2	Detailed Inspections of Vegetation	604,001	24,299	628,300
3	Fuel Management and Reduction of Slash	1,922,652	77,348	2,000,000

<b>Activity</b>	<b>Description</b>	<b>Contract Cost</b>	<b>Admin Cost</b>	<b>Total Cost</b>
4	LiDAR Inspections of Vegetation	788,287	31,713	820,000
5	Patrol Inspections of Vegetation (CEMA)	447,017	17,983	465,000
6	Quality Assurance/Quality Control	240,332	9,668	250,000
7	Remediation of At-Risk Species	4,950,829	199,171	5,150,000
8	Removal and Remediation of Trees with Strike Potential (CEMA)	2,114,917	85,083	2,200,000
9	Vegetation Management to Achieve Clearances Around Electric Lines and Structures	1,441,989	58,011	1,500,000
	<b>Total</b>	<b>13,252,265</b>	<b>533,135</b>	<b>13,785,400</b>

**1. Efforts to Manage Community and Environmental Impacts**

This activity is part of Liberty’s augmented wildfire operations. VM projects are critical to protect the environment by reducing the probability of ignition as a result of vegetation contact on electrical equipment. Liberty is committed to executing vegetation management in an environmentally responsible manner and supporting the principles of ecologically sustainable development. Liberty’s vegetation management plan includes resource protection measures that are designed to comply with regulations adopted by state, federal, and local government agencies. Implementing best practices for water quality, terrestrial wildlife, sensitive and rare plants, non-native invasive plant management, and hazardous spill control help to address environmental concerns that may arise from vegetation management activities.

Liberty is developing comprehensive communication plans to educate and inform the communities it serves of current and planned vegetation management activities and is dedicated to partner with community leaders and local businesses to mitigate any potential negative impacts.



1 The cost related to this activity is estimated to be \$772,100 in 2022.

2 Liberty initiated work in this category for the first time in 2020. Actual costs for the year  
3 were \$771,043, and Liberty reported 14.5 line miles of completed work. Liberty expects the cost  
4 of performing this work to remain relatively constant in its forecast. When no other factors are  
5 anticipated to affect the activity cost, Liberty will apply a 2% year-over-year escalation to  
6 account for typical annual increases in labor rates for VM contract services.

## 7 **2. Detailed Inspections of Vegetation**

8 This activity is part of Liberty's normal operations. Liberty performs detailed inspections  
9 and maintenance of vegetation along entire circuits in which individual trees are examined, and  
10 the condition of each is rated and recorded. These inspections are used to prescribe pruning and  
11 removal of vegetation as a safeguard against grow-ins or fall-ins and to conform to applicable  
12 laws and regulations.

13 Liberty intends to perform such inspections and work every three years per circuit. The  
14 primary factors considered when determining whether to prescribe pruning or removal are (1) the  
15 potential for vegetation to grow and/or encroach within the minimum allowed distances to the  
16 facilities prior to the next inspection and (2) the potential for vegetation to structurally fail into  
17 the facilities within the cycle. Additional site conditions and factors considered in prescribing  
18 tree work include length of span, line sag, planned inspections, location of vegetation within the  
19 span, species type, species characteristics, vegetation growth rate, arboricultural practices,  
20 environmental characteristics of the site, local climate, and elevation.

21 The cost related to this activity is estimated to be \$628,300 in 2022.

22 In previous years, Liberty experienced annual labor rate increases of 3% for contracted  
23 arborists to perform this service. The demand for Certified Arborists and Utility Foresters in

1 California is higher than ever before. This increasing demand, combined with the large rate  
 2 increases for qualified line clearance contractors, has created the need to increase rates for those  
 3 who are inspecting vegetation conditions and prescribing work. In order to retain and attract  
 4 qualified utility arborists, Liberty agreed to a 6% rate increase for this service in 2021. For  
 5 estimating the cost related to this activity in 2022, a 3% increase was applied to account for  
 6 anticipated rate increases. However, the ever increasing need for more individuals to perform  
 7 this work may result in rate increases beyond current projections to meet demand.

**Table 7-4**  
**Recorded and Projected Detailed Inspection Cost Summary**

<b>Year</b>	<b>Miles Inspected (Units)</b>	<b>Unit Cost</b>	<b>Total Cost</b>	<b>Unit Cost Increase</b>
2020 Actual	233	\$2,385.25	\$555,763	n/a
2021 Projected	242	\$2,520.66	\$610,000	6%
2022 Projected	242	\$2,595.04	\$628,300	3%

8 **3. Fuel Management and Reduction of Slash**

9 This activity is part of Liberty’s augmented wildfire operations. Liberty recognizes the  
 10 need for additional fuel reduction and wood management throughout its service territory.  
 11 Vegetation left behind from clearing activities, if left untreated, becomes an increasingly dry fuel  
 12 source adjacent to power lines and an infestation risk to remaining trees by forest insects.

13 Cutting down hazardous trees and clearing limbs away from power lines meets  
 14 compliance and reduces ignition risk by eliminating strike and grow-in potential, but it does not  
 15 address the fuel load that results from these activities. In the event of a fire, dead, dry fuel left  
 16 behind by vegetation management activities will contribute to the intensity and rate of spread of  
 17 the fire.

18 The cost related to this activity is estimated to be \$2,000,000 in 2022.

**Table 7-5**  
**Biomass Removal and Disposal Cost Summary**

Year	Tons of Biomass (Units)	Unit Cost	Total Cost
2020 Actual	376.4	942.3	354,700
2021 Projected	2,100	952.4	2,000,000
2022 Projected	2,100	952.4	2,000,000

1           **4.     LiDAR Inspections of Vegetation**

2           This activity is part of Liberty’s augmented wildfire operations. Liberty strives for  
3           continuous improvement through the use of technologies and other tools with the potential to  
4           enhance the quality and efficiency of its vegetation management inspections. In 2020, Liberty  
5           piloted a LiDAR inspection of vegetation around electric lines and equipment for approximately  
6           half of its service territory, including all line miles in the Extreme (Tier 3) HFTD. The pilot  
7           project is proving to be successful in detecting vegetation-to-conductor clearance issues, and  
8           Liberty plans to expand the use of LiDAR in 2021 and beyond to an annual inspection of 100%  
9           of its overhead electric lines and equipment.

10           The use of LiDAR to specifically target possible vegetation infractions will allow Liberty  
11           to better maintain minimum vegetation-to-conductor clearance distances. Inspection protocols  
12           for detailed inspections of vegetation performed by Liberty are comprehensive. In addition to  
13           inspecting for clearances between vegetation and conductors, arborists are trained to inspect any  
14           problematic vegetation, including dead, dying, or otherwise structurally compromised trees or  
15           parts of trees (both within and outside of the right-of-way) that have the potential to impact  
16           utility assets. These inspections take much longer, and obtaining permission for this work may  
17           take several months. Separating the compliance-focused inspections through the use of LiDAR  
18           into a distinct inspection program will allow Liberty to increase its inspection frequency to

1 identify vegetation infractions for its entire system on an annual basis. This will also complement  
2 its cycle-based detailed vegetation inspections by allowing arborists to focus primarily on dead,  
3 dying, diseased, or otherwise defective trees and decreasing the need to inspect for vegetation-to-  
4 conductor clearances.

5 The cost related to this activity is estimated to be \$820,000 in 2022.

6 This cost includes acquisition and processing of the LiDAR data and the associated costs  
7 of using the delivered data to generate work related to the maintenance of vegetation to  
8 conductor clearance distances throughout the system. Liberty calculated its high-voltage  
9 overhead distribution and transmission system to be 726.4 line miles, which equates to an  
10 estimated \$1,129 per mile to perform this activity.

#### 11 **5. Patrol Inspections of Vegetation**

12 This activity was previously tracked separately through CEMA. Liberty now tracks the  
13 cost associated with this activity as part of its normal operations and includes it in this GRC.

14 Liberty performs inspections of vegetation along utility rights-of-way to identify obvious  
15 hazards. These inspections are focused on the removal of dead and dying trees within and  
16 adjacent to the right-of-way.

17 Patrol inspections of vegetation around electric lines and equipment are performed to  
18 identify dead and dying trees with the potential to strike electric facilities. During patrol  
19 inspections, trees are also evaluated for compliance with regulated clearance distances from  
20 vegetation to conductors per G.O. 95 Rule 35 and Public Resources Code 4293.

21 In 2019, the recorded amount for the activity was \$136,000, and, in 2020, the recorded  
22 amount was \$420,800. The cost related to this activity is estimated to be \$465,000 in 2022.

1           **6.     Quality Assurance/Quality Control**

2           This activity is part of Liberty’s augmented wildfire operations. Liberty’s vegetation  
3 management program maintains and implements a robust scheduling process in order to meet  
4 mandated compliance inspection requirements. Most of the current maintenance work for VM  
5 (pre-inspection, pruning, and tree removals) is performed by contractors and not by Liberty  
6 employees. On an annual basis, over 10,000 trees are identified for work, and there is a need to  
7 track work performed and associated business processes and to standardize a formal QA/QC  
8 program for Liberty. Since the last WMP, Liberty has consulted with regional industry experts to  
9 develop such a QA/QC program that includes statistical sampling of VM inspections by annual  
10 circuit miles and a formal post work verification process control.

11           The cost related to this activity is estimated to be \$250,000 in 2022.

12           Liberty is in the process of securing a contract with a VM services provider to implement  
13 its QA/QC plan. Through this process, Liberty can evaluate its estimated cost for this activity  
14 and will be able to adjust projections as necessary to provide a more accurate forecast.

15           **7.     Remediation of At-Risk Species**

16           This activity is part of Liberty’s normal operations. Liberty has developed a Hazard Tree  
17 Management Plan (VM-03) for the purpose of identifying, documenting, and mitigating trees  
18 that are located within the USZ and are expected to pose a risk to electric facilities based on the  
19 trees’ observed structural condition and site considerations. The plan includes an overview of  
20 tree risk associated with electric lines and equipment, inspection types, risk assessment levels,  
21 work priority levels, and mitigation actions. Additionally, Liberty has established a Vegetation  
22 Threat Procedure (VM-05) that identifies the methods for prioritization of identified threats on  
23 the Liberty system that are discovered through implementation of other VM Plans.

1 Tree and limb failures are commonplace throughout the Liberty service territory. In order  
2 to reduce the risk of those failures contacting electric facilities, a process has been developed to  
3 identify, document, and mitigate at-risk vegetation.

4 The cost related to this activity is estimated to be \$5,150,000 in 2022.

#### 5 **8. Removal and Remediation of Trees with Strike Potential**

6 This activity was previously tracked separately through a CEMA account. Liberty now  
7 tracks the cost associated with this activity as part of its normal operations and includes it in this  
8 GRC.

9 Liberty has developed a Hazard Tree Management Plan (VM-03) for the purpose of  
10 identifying, documenting, and mitigating trees that are located within the USZ and are expected  
11 to pose a risk to electric facilities based on the trees' observed structural condition and site  
12 considerations. The plan includes an overview of tree risk associated with electric lines and  
13 equipment, inspection types, risk assessment levels, work priority levels, and mitigation actions.  
14 As previously discussed, Liberty has established a Vegetation Threat Procedure (VM-05) that  
15 identifies the methods of prioritization for identified threats on the Liberty system that are  
16 discovered through implementation of other VM Plans.

17 In 2019, the recorded amount for the activity was \$851,379, and, in 2020, the recorded  
18 amount was \$2,722,530. The cost related to this activity is estimated to be \$2,200,000 in 2022.

#### 19 **9. Vegetation Management to Achieve Clearances Around Electric Lines and** 20 **Structures**

21 This activity is part of Liberty's normal operations. Liberty's Vegetation Management  
22 program is designed to comply with regulations, including the clearance set forth in G.O. 95,  
23 Table 1. Vegetation is a living organism and must be inspected and monitored on a regular basis  
24 to comply with stated regulations. This will be accomplished by performing annual LiDAR

1 inspections of vegetation, as previously described, to identify vegetation management needed to  
2 achieve clearances around electric lines and structures.

3 Work performed as a result of all vegetation inspections meets the clearance  
4 recommendations set forth in Appendix E of G.O. 95, Rule 35 (14.4kV and 60kV – 12’; 120kV –  
5 30’). Clearance requirements have increased in HFTDs, increasing the volume of work,  
6 customer interaction, removal of overhangs, the amount of debris removal, and the costs  
7 associated with these activities. Liberty also complies with California Public Resources Code  
8 Section 4292 by performing pole brushing on approximately 5,000 poles throughout its service  
9 territory.

10 The cost related to this activity is estimated to be \$1,500,000 in 2022.

11 **10. Costs Related to Activities 7 and 9**

12 As described in the Program Overview, Liberty previously used a comprehensive, cycle-  
13 based approach to treat all potential vegetation issues at one time. Using this approach, Liberty  
14 recorded all expenses authorized for tree pruning and removal as a single activity. The 2020  
15 recorded expenses for this work was \$7,338,323 and includes all expenses now categorized as  
16 Remediation of At-Risk Species (Activity 7) and Vegetation Management to Achieve Clearances  
17 Around Electric Lines and Structures (Activity 9). Liberty has modified its previous approach  
18 with the addition of annual, system-wide LiDAR inspections of vegetation. This addition to the  
19 VM program provides a significant enhancement to wildfire mitigation efforts by greatly  
20 improving the capability to identify and remediate vegetation conditions necessary to maintain  
21 appropriate clearances. In order to account for this program enhancement and provide more  
22 detailed reporting of its VM activities, Liberty now separates the cost of work described in

1 Activities 7 and 9. In 2021, Liberty began estimating, tracking, and reporting the VM costs of  
 2 these two activities separately, which is reflected in the forecast of VM expenses.

3 **F. Forecast of VM Expenses**

4 The following table provides a forecast of costs for each VM program activity. The  
 5 forecast for 2022 is described in prior testimony, and the forecasts for 2023 and 2024 are based  
 6 on maintaining relatively stable resources and completing the same amount of work across all  
 7 VM activities. A 1.93% increase, based on a five-year average of historic CPI-U indices, was  
 8 applied to activities to account for typical annual increases in labor rates for VM contract  
 9 services.

**Table 7-6  
 2022-2024 VM Forecast**

<b>Activity</b>	<b>Description</b>	<b>2022 Forecast</b>	<b>2023 Forecast</b>	<b>2024 Forecast</b>
1	Manage Community and Environmental Impacts	772,100	787,002	802,191
2	Detailed Inspections of Vegetation	628,300	640,426	652,786
3	Fuel Management and Reduction of Slash	2,000,000	2,038,600	2,077,945
4	LiDAR Inspections of Vegetation	820,000	835,826	851,957
5	Patrol Inspections of Vegetation	465,000	473,974	483,122
6	Quality Assurance/Quality Control	250,000	254,825	259,743
7	Remediation of At-Risk Species	5,150,000	5,249,395	5,350,708
8	Removal and Remediation of Trees with Strike Potential	2,200,000	2,242,460	2,285,740
9	Vegetation Management to Achieve Clearances Around Electric Lines and Structures	1,500,000	1,528,950	1,558,459
<b>Total</b>		<b>13,785,400</b>	<b>14,051,458</b>	<b>14,322,651</b>
<b>Total Increase</b>		<b>n/a</b>	<b>1.93%</b>	<b>1.93%</b>



**Appendix A**  
**Witness Qualifications**

**LIBERTY UTILITIES (CALPECO ELECTRIC) LLC**  
**QUALIFICATIONS AND PREPARED TESTIMONY**  
**OF PETER STOLTMAN**

1 Q. Please state your name and business address for the record.

2 A. My name is Peter Stoltman and my business address is 701 National Avenue, Tahoe Vista,  
3 California 96148.

4 Q. Briefly describe your present responsibilities at Liberty Utilities (CalPeco Electric) LLC.

5 A. I am the Manager of Vegetation Management for Liberty Utilities (CalPeco Electric) LLC.

6 Q. Briefly describe your educational and professional background.

7 A. I have been the Manager of Vegetation Management for Liberty Utilities (CalPeco Electric)  
8 LLC since March 2020. Prior to that, I was a Technical Specialist and Vegetation  
9 Management Program Manager for Oncor Electric Delivery Company LLC responsible for  
10 the regulatory compliance and maintenance strategy of the transmission and distribution  
11 vegetation management programs. I have worked as a consulting arborist in residential,  
12 commercial, municipal, and utility industries, and held various related positions in the public  
13 and private sector. I am an International Society of Arboriculture (ISA) Board Certified  
14 Master Arborist, the highest level of certification offered by ISA, and hold the ISA Tree Risk  
15 Assessment Qualification credential. I am an active member of the Utility Arborist  
16 Association (UAA), and serve as the Chairperson of the UAA Professional Development  
17 Committee. I received a Bachelor of Science Degree in 2005 from the University of Idaho  
18 College of Natural Resources where I studied natural resource conservation.

19 Q. What is the purpose of your testimony in this proceeding?

20 A. The purpose of my testimony in this proceeding is to sponsor Chapter 7: Vegetation

- 1 Management
- 2 Q. Was this material prepared by you or under your supervision?
- 3 A. Yes, it was.
- 4 Q. Insofar as this material is factual in nature, do you believe it to be correct?
- 5 A. Yes, I do.
- 6 Q. Insofar as this material is in the nature of opinion or judgement, does it represent your best
- 7 judgement?
- 8 A. Yes, it does.
- 9 Q. Does this conclude your qualifications and prepared testimony?
- 10 A. Yes, it does.