

**PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA**

Resolution WSD-007  
Wildfire Safety Division  
June 11, 2020

**R E S O L U T I O N**

RESOLUTION WSD-007 Ratifying Action of the Wildfire Safety Division on Liberty Utilities' (CalPeco Electric) 2020 Wildfire Mitigation Plan Pursuant to Public Utilities Code Section 8386.

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This Resolution ratifies the attached action of the Wildfire Safety Division (WSD) pursuant to Public Utilities Code Section 8386. The California Public Utilities Commission's (Commission) and the WSD's most important responsibility is ensuring the safety of Californians. Since several catastrophic wildfires in the San Diego area in 2007, the equipment of large electric utilities the Commission regulates has been implicated in the most devastating wildfires in our state's history. California's Legislature enacted several legislative measures requiring electrical corporations to submit, and the Commission and the WSD to review, approve or otherwise act on Wildfire Mitigation Plans (WMPs) designed to reduce the risk of utility-caused catastrophic wildfire. Key among the legislative measures are Senate Bill 901 (2018), Assembly Bill 1054 (2019), and Assembly Bill 111, discussed in detail below.

This Resolution (along with several others concurrently being issued with regard to all Commission-regulated electric utilities and independent transmission owners), acts on the WMP submitted on February 7, 2020, of Liberty Utilities/CalPeco Electric (Liberty). Liberty's 2020 WMP responds to a list of 22 requirements set forth in Public Utilities Code 8386 and focuses on measures the electrical corporation will take over the next three years to reduce the risk of, and impact from, a catastrophic wildfire caused by its electrical infrastructure and equipment. Electrical infrastructure and equipment pose ongoing risks of starting wildfires due to the presence of electric current. There are three elements required to start a fire: fuel (such as dry vegetation), oxygen,

and an ignition source (heat). A spark from electrical infrastructure and equipment can provide the ignition point from which a wildfire can spread and cause catastrophic harm to life, property, and the environment.

WMPs contain an electrical corporation's detailed plans to reduce the risk of its equipment, operations or facilities igniting a wildfire. This Resolution ratifies the attached action of the WSD, which has conditionally approved Liberty's 2020 WMP in its Action Statement. In doing so, this Resolution analyzes the extent to which Liberty's wildfire mitigation efforts objectively reduce wildfire risk, drive improvement, and act as cost effectively as possible. In conducting this evaluation, the Commission considers and incorporates input from the Wildfire Safety Advisory Board, the public and other stakeholders.

#### PROPOSED OUTCOME:

- Ratifies the attached action of the WSD to approve the 2020 WMP of Liberty, with conditions designed to ensure WMP decreases risk of catastrophic wildfire in California.
- A list of conditions of approval is in Appendix A.
- Evaluates the maturity of Liberty's WMP using the WSD's new Utility Wildfire Mitigation Assessment, as represented in the Utility Wildfire Mitigation Maturity Model. Final maturity model outputs should be viewed as levels or thresholds – they are not absolute scores.
- Requires Liberty to file an update to its WMP in 2021 according to a forthcoming schedule to be released by the WSD.
- Does not approve costs attributable to WMPs, as statute requires electrical corporations to seek cost recovery and prove of all expenditures are just and reasonable at a future time in their General Rate Cases (GRC) or compliant application. Nothing in this Resolution nor the WSD's Action Statement should be construed as approval of any WMP-related costs.
- Does not establish a defense to any enforcement action for a violation of a Commission decision, order, or rule.

#### SAFETY CONSIDERATIONS:

Mitigation of catastrophic wildfires in California is among the most important safety challenges the Commission-regulated electrical corporations face. Comprehensive WMPs are essential to safety because:

- WMPs list all of an electrical corporation's proposed actions to reduce utility-related wildfire risk and prevent catastrophic wildfires caused by utility infrastructure and equipment. By implementing measures such as vegetation management, system hardening (such as insulating overhead lines and removing or upgrading equipment most likely to cause fire ignition), improving inspection and maintenance, situational awareness (cameras, weather stations, and use of data to predict areas of highest fire threat), improving community engagement and awareness, and other measures, utility-caused catastrophic wildfire risk should be reduced over time.
- The WSD's and Commission's substantive and procedural changes for evaluations of electrical corporations' 2020 WMPs will enhance California's ability to mitigate catastrophic wildfire risk related to utilities. Below is a summary of the key, new requirements in the 2020 process, required of all WMP filers:
  - A WMP template and format so WMPs are standardized and include similar information in the same format.
  - Standard data submissions, in spatial, non-spatial and tabular format, which grounds the WMPs in specific data. Data submissions will continue throughout the WMP 3-year horizon and be used to measure compliance and performance to program, progress and outcome metrics.
  - A new Utility Survey that objectively assesses the electrical corporation's maturity across 52 capabilities in 10 categories. The resulting Maturity Matrix quantitatively presents the progressive impact of the electrical corporation's wildfire mitigation plan activities over the WMP 3-year horizon.

ESTIMATED COST:

- Nothing in this Resolution should be construed as approval of the costs associated with the WMP mitigation efforts.
- For illustrative purposes, Table 1 below contains filer's estimates of its projected costs for the wildfire mitigation efforts in its 2020 WMP.
- Liberty may not record the same costs more than once or in more than one place, seek duplicative recovery of costs, or record or seek to recover costs in the memorandum account already recovered separately. All electrical corporations should ensure they carefully document their expenditures in these memorandum accounts, by category, and be prepared for Commission review and audit of the accounts at any time.

*Table 1: Proposed WMP costs*

<b>Proposed WMP costs</b>	
Total costs 2020-2022	\$88 million
Subtotal: 2020	\$30 million
Subtotal: 2021	\$32 million
Subtotal: 2022	\$27 million

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## Summary

This Resolution acts on the attached Wildfire Safety Division's (WSD's) conditional approval of the WMP submitted by Liberty Utilities/CalPeco Electric (Liberty) on February 7, 2020. The Resolution finds that Liberty is in compliance with the requirements for WMPs set forth in Assembly Bill (AB) 1054, codified at Public Utilities Code (Pub. Util. Code) Section 8386(c) and the WMP Guidelines issued by the Commission to electrical corporations. Section 8386 requires that electrical corporations' WMPs contain 22 elements; the full list of elements appears in Appendix E to this Resolution.

There are three possible actions for the WSD and Commission in response to any electrical corporation's WMP: approval, denial, or approval with conditions. In the case of the WMP resolved here, we ratify the WSD's action to approve the WMP with conditions. To the extent we do not impose conditions on elements of the WMP, those elements are approved as plan components. This approval does not relieve the electrical corporation from any and all otherwise applicable permitting, ratemaking, or other legal and regulatory obligations.

The list of conditions of approval is in Appendix A.

## 1. Background

Catastrophic wildfires in 2017-19 led the California Legislature to pass Senate Bill (SB) 901 in 2018 and its successor AB 1054 in 2019, as well as AB 111. SB 901 and AB 1054 contain detailed requirements for electrical corporations' WMPs and provide a 90-day review cycle of WMPs by the WSD. AB 111 establishes a new division, the WSD, within the Commission. The duties of the WSD are contained in Pub. Util. Code Section 326(a), including to evaluate, oversee and enforce electrical corporations' compliance with wildfire safety requirements, and develop and recommend to the Commission performance metrics to achieve maximum feasible wildfire risk reduction. SB 901 required a formal Commission proceeding for WMP review in 2019, and to that end the Commission reviewed the 2019 WMPs in Rulemaking (R.) 18-10-007. The decisions dispensing of the 2019 WMPs also added additional requirements for the 2020 WMPs.

After the Commission issued its WMP decisions on May 30, 2019,<sup>1</sup> the Legislature enacted AB 1054. AB 1054 contains similar WMP requirements to SB 901 but allows WMPs a three-year rather than one-year duration. AB 1054 also requires the WSD to review and approve, deny or approve with conditions the electrical

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<sup>1</sup> Decisions 19-05-036, 037, 038, 039, 040 and 041 (May 30, 2019).

corporations' WMPs, with Commission ratification to follow thereafter. AB 1054 also requires establishment of a Wildfire Safety Advisory Board (WSAB), with appointees from the California Governor and Legislature, to provide comments on the 2020 WMPs and develop and make recommendations related to the metrics used to evaluate WMPs in 2021 and beyond.<sup>2</sup>

Building on lessons learned from the WMP review process in 2019, the WSD developed and required all electrical corporations to conform their WMPs to a set of new WMP Guidelines starting in 2020.<sup>3</sup> For 2020, the WMP Guidelines add requirements on detail, data, and other supporting information. The WMP Guidelines are designed 1) to increase standardization of information collected on electrical corporations' wildfire risk exposure, 2) enable systematic and uniform review of information each electrical corporation submits, and 3) move electrical corporations toward an effective long-term wildfire mitigation strategy, with systematic tracking of improvements over time.

The Commission adopted Resolution WSD-001 setting forth the process for the WSD and Commission review of the 2020 WMPs. The resolution called for electrical corporations to submit their 2020 WMPs on February 7, 2020. Liberty submitted its WMP on that date, and in response to several data requests from the WSD, it filed an amended WMP on February 28, 2020. This amended filing contained all of the required elements of Sec. 8386 (a) and addressed each of the Guidelines, although some elements will require additional information as detailed in the body of this resolution.

Shortly after electrical corporations filed their WMPs, the WSD held two sets of all-day workshops over four days, on February 18, 19, 24 and 25. The February 18-19, 2020, informational workshops called for the electrical corporations to present to stakeholders and the public details on their WMPs, and for stakeholders to ask questions, raise concerns, and otherwise comment on the WMPs' contents. The February 24-25 technical workshops focused more in depth on key provisions of the WMPs: vegetation management, system hardening, risk-spend efficiency emerging technology and reduction of the scale and scope of Public Safety Power Shutoff (PSPS) events. Again, stakeholder and public input was offered.<sup>4</sup>

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<sup>2</sup> Pub. Util. Code § 8386.3 (Wildfire Safety Division), § 326.1 (Wildfire Safety Advisory Board).

<sup>3</sup> A ruling issued on December 19, 2019 in proceeding R.18-10-007 described and attached all of the material electrical corporations were required to use in submitting their 2020 WMPs.

<sup>4</sup> Presentations, agendas and other details of the workshops appear on the Commission's WMP homepage, located at [www. cpuc.ca.gov/wildfiremitigationplans/](http://www.cpuc.ca.gov/wildfiremitigationplans/).

Stakeholders were also allowed to submit comments on the WMP, to which the electrical corporation replied. Stakeholders and members of the public commented on the WMPs by April 7, 2020, and the electrical corporations responded to those comments by April 16, 2020.

## **2. Notice**

In accordance with Pub. Util. Code § 8386(d), notice of Liberty's WMP was given by posting of the WMP on the WSD's webpage, at [www.cpuc.ca.gov/wildfiremitigationplans](http://www.cpuc.ca.gov/wildfiremitigationplans), on February 7, 2020, in accordance with the requirements of Pub. Util. Code Section 8386(d). Further, the electrical corporation served its 2020 WMP on the Commission's existing WMP formal proceeding (R.18-10-007) service list, as Resolution WSD-001 provided. Resolution WSD-001 also required the filer to post all data request responses, as well as any document referenced in its WMP, on its own website and update the website with notice to the R.18-10-007 on a weekly basis.

## **3. Wildfire Safety Division Analysis of WMP**

To reach a conclusion about each WMP, the WSD reviewed each electrical corporation's 2020 WMP (including updates and Geographic Information System (GIS) data), public and WSAB input, responses to WSD data requests, and responses to the maturity model survey questions. For Liberty, the WSD issued three sets of data requests for missing information, clarification, and supplementation where necessary. The initial set of data requests were to ensure completeness of compliance with all of the elements of WMPs required by Sec 8386. Subsequent data requests were to obtain additional information, especially for use in GIS analysis by CAL FIRE. Upon completion of this review, the WSD determined whether each utility's 2020 WMP should either approved without conditions, approved with conditions, or denied.

There are three possible actions for the WSD in response to any electrical corporation's WMP: approval, denial, or approval with conditions. To reach its conclusion, the WSD reviewed the WMPs for compliance with every aspect of the WMP Guidelines and AB 1054 and requirements of the 2019 WMP Decisions. The WSD designed the WMP Guidelines to require that each filer have a comprehensive WMP that contains all elements required by AB 1054. Thus, for example, every WMP must contain plans for vegetation management, system hardening, inspections of assets and vegetation, situational awareness, a plan to reduce and manage PSPS events, customer and first responder outreach and coordination, risk analysis, GIS data, a short- and long-term vision, analysis of causes of ignition, and many other elements. To evaluate WMPs, the WSD assessed each plan for its completeness, the technical feasibility and effectiveness of its initiatives, whether proposed initiatives

were an efficient use of resources, and for demonstration of a sufficiently growth-oriented approach to reducing utility-related wildfire risk over time.

A conditional approval explains each missing or inadequate component in the WMP. The 2020 WMP Resolutions for each electrical corporation contain a set of “Deficiencies “and associated “Conditions” to remedy those deficiencies. Each deficiency is categorized into one of the following categories, with Class A being the most serious:

1. Class A – aspects of the WMP are lacking or flawed;
2. Class B – insufficient detail or justification provided in WMP;
3. Class C – gaps in baseline or historical data, as required in 2020 WMP Guidelines.

Class A deficiencies are of the highest concern and require an electrical corporation to develop and submit to the WSD within 45 days of Commission ratification of this Resolution, a Remedial Compliance Plan (RCP) to resolve the identified deficiency. Class B deficiencies are of medium concern and require reporting by the electrical corporation to provide missing data or update its progress in its quarterly report. Such reporting will be either on a one-time basis or ongoing as set forth in each condition. Class C deficiencies require the electrical corporation to submit additional detail and information or otherwise come into compliance in its 2021 annual WMP update. Detailed descriptions of the RCP and quarterly reports are contained in Resolution WSD-002, the Guidance Resolution on 2020 Wildfire Mitigation Plans.

The WSD’s key concerns relate to the following aspects of the WMP:

While Liberty has shown a strong response in evolving its WMP by identifying and addressing lessons learned from recent experience, it still lacks a thorough tracking and analytical capability for ignition probability and various mitigation activities, and it does not employ a risk-based decision-making framework. The utility intends to develop a Fire Prevention Index (FPI) which could help provide a basis for improved use of data and metrics. It has not fully explained or justified certain mitigation proposals, especially for expensive grid hardening and undergrounding projects.

Liberty plans to allocate approximately a quarter of its total planned spend on installation of covered conductor. Liberty plans to steadily increase its covered conductor program through the plan cycle and intends to ultimately replace all overhead primary distribution conductors with covered conductor in the decade to come. Additionally, Liberty plans to allocate approximately another quarter of its budget to vegetation management initiatives, including remediation of at-risk

species (16 percent) and fuel management work (8 percent). See Appendix B, Figure 3.7.

Liberty needs to improve its analysis of ignition probabilities, focusing on the causes of known near-miss events and causes of an apparent increasing trend in outages/faults.

This Resolution discusses and resolves these issues below.

#### **4. Wildfire Safety Advisory Board Input**

The WSAB provided recommendations on the WMPs of Pacific Gas and Electric Company (PG&E), Southern California Edison Company (SCE), and San Diego Gas & Electric Company (SDG&E) on April 15, 2020. Although not focusing specifically on Liberty's WMP, the WSD has considered the WSAB's recommendations, and this Resolution incorporates WSAB's input throughout.

The WSAB focused its recommendations on high-level input and identification of shortcomings in the 2020 WMPs to inform upcoming wildfire mitigation efforts. WSAB recommendations focused on the following areas: vegetation management and inspection; grid design and system hardening; resource allocation methodology; and PSPS preparation, including communication with the community, planning, and recovery after PSPS events.

#### **5. Public and Stakeholder Comment**

The following individuals and organizations submitted comments specific to Liberty's WMP: California Public Advocates Office, Joint Local Governments/Rural Counties and Green Power Institute. Several other stakeholders provided comments that were targeted to the three large electrical corporations. In some cases, especially from The Utility Reform Network (TURN) and Energy Producers & Users Coalition (EPUC), comments directed towards other utilities could also be applied to Liberty and the other Small and Multi-Jurisdictional Utilities (SMJUs).

Many stakeholders found the WMPs lacking in specific and complete data, especially related to Risk Spend Efficiency (RSE). Generally, stakeholders also found comparing utilities difficult due to inconsistent reporting across utilities. The utilities received some appreciation for the general expansion of programs, with some stakeholders noting specific improvements in situational awareness. Many also reiterated that approval of the WMPs neither approves the scope nor portfolio of programs nor authorizes rate recovery.

#### **The Utility Reform Network (TURN)**

- Compliance inspection and repair programs should not be deemed new activities.
- Use of Light Detection and Ranging (LiDAR) technology for situational awareness.
- Covered Conductor Circuit Targeting

### **Green Power Institute (GPI)**

- Liberty and the other SMJUs should catch up to the larger electrical corporations in use of analytical tools and mitigation measures. A need exists for improvement including in the following areas:
  - Development of a risk-based decision-making framework, including RSE values and thorough risk bowtie analyses;
  - Establishment of more comprehensive, “living-document” tools, methods, and protocols;
  - Adoption of digitized versus paper forms and advanced system tracking;
  - Assessment of run-to-failure asset replacement schedules and their impact on wildfire risk;
  - Vegetation management compliance and consideration of enhanced vegetation management that goes beyond simple regulatory compliance;
  - Integration of mature wildfire modeling tools;
  - Development of a more comprehensive customer communication and outreach program and concrete plans for providing support for affected customers (e.g., back-up generation, community support centers); and
  - Examination of whether the rate of system hardening and increased system resiliency upgrades is adequate to reduce wildfire risk
  - Need for better RSE data
  - Use of microgrids
  - Equipment replacement thresholds
  - Vegetation management tracking systems
  - Recommends better stakeholder and community engagement, including outreach
  - Suggests directing residual wood waste created by tree trimming and felling to biomass plants (an issue that is not a subject of the 2020 WMPs)

### **Rural Counties of California Representatives (RCRC)/Joint Local Governments**

- Liberty did not sufficiently consider undergrounding of power lines as a system-hardening option.

- Liberty should consider use of Expulsion Fuse Replacements
- Liberty should consider improved vegetation management in future plans.

### **Energy Producers and Users Coalition (EPUC)**

- Need to include RSE data

### **Public Advocate’s Office of the Public Utilities Commission (Cal Advocates)**

- Liberty provides insufficient GIS data, and should make “substantial improvements” to the utility’s GIS data responses, including clearly labelling data in Liberty’s 2021 WMP Update

On April 16, 2020, Liberty submitted reply comments, in which the utility committed to providing improved geospatial data in the future, and to consider the results of its asset inventory survey in its 2021 WMP. Liberty also notes in response to the RCRC comments that the company considered undergrounding in developing its WMP.

## **6. Discussion**

The Commission has reviewed the actions taken by the WSD pursuant to Public Utilities Code section 8386.3, the recommendations of Wildfire Safety Advisory Board (WSAB), stakeholder comments served on the R.18-10-007 service list, the underlying documents, and other public input.

Despite its small territory and limited resources, Liberty appears to be making necessary efforts to implement processes and reporting procedures that will make its wildfire mitigations effective and enhance Liberty’s accountability. Liberty provides a preliminary description of such processes in its 2020 Wildfire Mitigation Plan (WMP), even if they are not yet fully operational.

Liberty projects an expansion of its weather station network and deployment of Distribution Automation Controls. This expansion will improve fault detection and enhance Liberty’s ability to forecast weather events and inform decision-making regarding potential Public Safety Power Shutoff (PSPS) events. Additionally, Liberty describes a program for replacing reclosers, which is an improvement upon the existing system.

The following aspects of the WMP raise concerns:

- Liberty’s inspections and vegetation management programs are compliance-based and designed to meet minimum requirements within the Commission’s General Orders. They are not risk-informed to drive wildfire mitigation. For

example, Liberty proposes to maintain a three-year cycle of inspections, except in Tier 3 High Fire Threat District (HFTD). However, a three-year cycle may be inadequate to meet the State’s increasing wildfire risks.

- Liberty is developing a risk assessment and resource allocation program that will improve its ability to address wildfire risk. However, Liberty does not expect to have a refined process in place before its next general rate case filing.
- Liberty’s data governance program is in the very early stages of development. As noted by the Public Advocates Office and Green Power Institute, Liberty’s Geographic Information System (GIS) data and asset inventory requires improvement in the 2021 WMP filing. Liberty should confer with CAL FIRE and the WSD to fill in gaps in its GIS data in preparation for its 2021 WMP Update. Liberty is also directed to include in quarterly reports to the Commission updates on the progress of its data governance upgrades, until Liberty’s system-wide survey, asset inventory database, and upgrades to its GIS system have modernized.
- Although its history of ignitions caused by utility equipment is limited, Liberty’s data provided in response to a data request indicates that Liberty anticipates moderate to significant increases in the trends of several of its top ignition drivers over the next decade.<sup>5</sup> In future WMP updates, Liberty needs to improve its analysis of ignition probabilities, focusing on the causes of known near-miss events and causes of an apparent increasing trend in outages/faults.
- Because its resources devoted to wildfire risk mitigation are limited, Liberty’s decision to invest in a costly undergrounding project at \$6 million/mile in 2021 when it does not anticipate completing its less costly expulsion fuse replacement program until 2026 raises concerns. The lack of Risk Spend Efficiency (RSE) and resource allocation analysis raises questions about Liberty’s priorities and makes it difficult to evaluate its choices.

Therefore, the WSD’s approval of Liberty’s WMP is conditioned on Liberty’s compliance with each of the “conditions” set forth in Appendix A, and associated conditions addressed in the Guidance Resolution, WSD-002.

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<sup>5</sup> Table 10, in 2020 WMP Attachment 5.xlsx March 6, 2020, <https://kwftp.cpuc.ca.gov/#/file/287338>.

The following sections discuss in detail the Liberty's WMP, its contents, required changes, and conditions imposed on approval. The discussion follows the template provided in WMP Guidelines attached to the R.18-10-007 Administrative Law Judge's December 16, 2019 ruling as Attachment 1.

### **6.1. Persons Responsible for Executing The Plan**

This section of the WMP requires that the filer designate a company executive with overall responsibility for the plan, and program owners specific to each component of the plan. The section also requires a senior officer to verify the contents of the plan, and the filer to designate key personnel responsible for major areas of the WMP.

Liberty provided the required information.

### **6.2. Metrics and Underlying Data**

The metrics and underlying data section of the WMP represents an innovation over the 2019 WMP requirements in that all filers are required to report standardized and normalized data on many aspects, including their performance metrics, conditions in their service territories, grid topology, and wildfire mitigation efforts. To remedy a concern with the 2019 plans, the 2020 WMP Guidelines disallow the practice of filers characterizing only "program targets" (e.g., number of miles of covered conductor installed or trees trimmed) as the "metrics" required by the statute.<sup>10</sup> For 2020, the WMP Guidelines require filers to group metrics and program targets as follows.

- *Progress metrics* track how much electrical corporation wildfire mitigation activity has managed to change the conditions of electrical corporation's wildfire risk exposure in terms of drivers of ignition probability.
- *Outcome metrics* measure the performance of an electrical corporation and its service territory in terms of both leading and lagging indicators of wildfire risk, PSPS risk, and other direct and indirect consequences of wildfire and PSPS, including the potential unintended consequences of wildfire mitigation work.
- *Program targets* measure tracking of proposed wildfire mitigation activities against the scope and pace of those activities as laid out in the WMPs but do not track the efficacy of those activities. The primary use of these program targets in 2020 will be to gauge electrical corporation follow-through on WMPs.

This section first requires filers to discuss how their plans have evolved since 2019, outline major themes and lessons learned from implementation of their 2019 plan and discuss how the filers performance against metrics used in their 2019 plans have informed their 2020 WMP. A series of tables then requires reporting of recent performance on predefined outcome and progress metrics, including numbers of ignitions, near misses, PSPS events, worker and public deaths and injuries, acreage affected, and assets destroyed by fire, and critical infrastructure impacts, as well as additional metrics the filer proposes to use to ensure the effectiveness of its efforts in quantitatively mitigating the risk of utility-caused catastrophic wildfire. This section also requires filers to detail their methodology for calculating or modeling potential impact of ignitions, including all data inputs used, data selection and treatment methodologies, assumptions, equations or algorithms used and types of outputs produced. Finally, this section requires filers to provide a number of GIS files detailing spatial information about their service territory and performance, including recent weather patterns, location of recent ignitions, area and duration of PSPS events, location of lines and assets, geographic and population characteristics and location of planned initiatives.

Appendix B, Figure 2.2b depicts near misses normalized by circuit miles and Appendix B, Figure 2.3b depicts normalized ignitions. Appendix B, Figure 2.6b provides a detailed breakdown of ignitions by driver. It is important to consider these data in conjunction to better understand the scope, frequency, and scale of the drivers of utility ignition. Presumably, there are relationships between near misses and ignitions that can better inform utility performance and track progress.

From 2015 to 2018, Liberty reports almost no fluctuation in near misses per circuit mile; however, in 2019 Liberty reports a 160 percent increase in near miss incidents. The majority of Liberty's 2019 increase in near miss incidents is driven by "object contact," "wire-to-wire contact," and "other" categories. In Liberty's case, there does not seem to be a correlation between its increase in near miss incidents and ignitions, as it reported no ignitions for two of the five reporting years (2017 and 2018).

A substantial increase in "near misses" signals a trend that could in the future lead to increased ignitions.

A detailed analysis and comparison across peer utilities is provided in Appendix B.

### **6.3. Baseline Ignition Probability and Wildfire Risk Exposure**

The baseline ignition probability and wildfire risk exposure section of the WMP requires electrical corporations to report baseline conditions and recent information related to weather patterns, drivers of ignition probability, use of PSPS, current state of utility equipment, and summary data on weather stations and fault indicators. The section then requires the filer to provide information on its planned additions, removals, and upgrades of equipment and assets by the end of the 3-year plan term, in urban, rural and highly rural areas. The information must describe the scope of hardening efforts (*i.e.*, circuit miles treated), distinguish between efforts for distribution and transmission assets, and identify certain locational characteristics (*i.e.*, urban, rural and highly rural) of targeted areas. Filers must also report the sources of ignition over the past 5 years due to ignition drivers outlined in the annual fire incident data collection report template adopted in D.14-02-015.

Considering that managing the potential sources of ignition from its infrastructure, operations, and equipment is the single most controllable aspect of utility wildfire risk, understanding the sources and drivers of near misses and ignitions is one of the most critical capabilities in reducing utility-caused wildfire risk. Moreover, it is important to consider these performance metrics relative to annual fluctuations in weather conditions (*i.e.*, incidence of Red Flag Warning (RFW) days, days with high wind conditions – 95<sup>th</sup> and 99<sup>th</sup> percentile winds, and high fire potential days measured relative to utility FPIs or other fire danger rating systems) to better gauge relationships and thresholds between weather and fire potential indicators and utility ignitions. As such, the discussion in this section focuses on recent weather patterns, key drivers of utility ignitions and frequencies of such ignitions, recent use of PSPS, the current baseline conditions of the utility’s service territory and equipment, and locations of planned utility upgrades.

Because Liberty reported an average of just one (1) ignition per year over the past five years, it is difficult to discern trends related to causation. Contact from objects (including both vegetation and other objects) and equipment failure are the documented causes of historical ignitions, though Liberty also reports one ignition due to “other” causes. Although its history of ignitions caused by utility equipment is limited, its response to a WSD data request indicates that Liberty anticipates moderate to significant increases in the trends of several of its top ignition drivers over the next decade.

A detailed summary and comparison of performance metrics and current state of utility service territories is provided in Appendix B.

#### **6.4. Inputs to the Plan, Including Current and Directional Vision for Wildfire Risk Exposure**

This section of the WMP requires the filer to rank and discuss trends anticipated to exhibit the greatest change and have the greatest impact on ignition probability and wildfire consequence, within the filer's service territory, over the next 10 years. First, filers must set forth objectives over the following timeframes: Before the upcoming wildfire season, before the next annual update, within the next 3 years, and within the next 10 years.

Filers must describe how the utility assesses wildfire risk in terms of ignition probability and estimated wildfire consequence, using Commission adopted risk assessment requirements (for large electrical corporations) from the GRC Safety Model and Assessment Proceeding (S-MAP) and Risk Assessment Mitigation Phase (RAMP). The filer must describe how the utility monitors and accounts for the contribution of weather and fuel to ignition probability and wildfire consequence; identify any areas where the Commission's High Fire Threat District (HFTD) should be modified; and rank trends anticipated to have the greatest impact on ignition probability and wildfire consequence.

A key area which filers are required to address is Public Safety Power Shutoffs (PSPS). In 2019 electrical corporations proactively shutoff power to millions of customers for multiple days, resulting in numerous cascading consequences, including associated public safety concerns. The Commission has been clear in its judgement that those events were unacceptable and cannot be repeated. The new 2020 WMP Guidelines direct the electrical corporations to describe lessons learned from past PSPS events and quantify the projected decrease of circuits and customers affected by PSPS as a result of implementing wildfire mitigation programs and strategies contained in the WMP.

Liberty has experienced only one PSPS event, in 2018, which was narrow in scope, affecting just a single circuit and resulting in a total 90 hours of customer outages. Liberty did not experience a PSPS event in 2019, but it stated that there was a single instance when it did initiate the processes and ultimately determined a PSPS event was unnecessary. The PSPS framework reportedly helped Liberty develop better decision-making processes and communication plans.

Given its relatively small territory and few customers Liberty did not analyze future quantitative impacts of the number of customers and circuits affected by PSPS events. Liberty does not have a set process as it relates to the PSPS program and serving customers in urban, rural, and highly rural areas. Moving forward, Liberty

said it will study possible differences in approaches to PSPS protocols across the customer classes in the Wildland Urban Interface (WUI) designation.

### **6.5. Wildfire Mitigation Activity for Each Year of the 3-Year WMP Term, Including Expected Outcomes of the 3-Year Plan**

This section of the WMPs is the heart of the plans and requires the filer to describe each mitigation measure it will undertake to reduce the risk of catastrophic wildfire caused by the utility's infrastructure, operations, and equipment. A description of each type of measure appears below, with elaboration in Appendix D to this Resolution.

First, the WMP Guidelines require a description of the overall wildfire mitigation strategy over the following timeframes: before the upcoming wildfire season, before the next annual update, within the next 3 years and within the next 10 years. The filer is required to describe its approach to determining how to manage wildfire risk (in terms of ignition probability and estimated wildfire consequence) as distinct from other safety risks. The filer is required to summarize its major investments over the past year, lessons learned, and changes planned for 2020-2022; describe challenges associated with limited resources; and outline how the filer expects new technologies to help achieve reduction in wildfire risk.

Next, Section 5 requires the filer to explain how it will monitor and audit the implementation of the plan and lay out the data the filer relies on in operating the grid and keeping it safe. It then requires detailed descriptions of specific mitigations or programs, in the following order:

- 1) Risk assessment and mapping
- 2) Situational awareness and forecasting
- 3) Grid design and system hardening
- 4) Asset management and inspections
- 5) Vegetation management and inspections
- 6) Grid operations and operating protocols
- 7) Data governance
- 8) Resource allocation methodology
- 9) Emergency planning and preparedness
- 10) Stakeholder cooperation and community engagement.

Below, this Resolution evaluates the mitigations (or initiatives) Liberty proposed for each of the 10 foregoing categories. After identifying each proposed mitigation or group of mitigations, the Resolution discusses concerns with the proposal, and identifies any conditions imposed. Provided in Appendix B, for illustrative purposes, are summaries of the filer's projected costs across highest total cost initiatives as well as projected costs across the highest category initiatives.

Liberty's top five initiatives by planned spend are found on Appendix B, Figure 3.7. Liberty plans to allocate approximately a quarter of its total planned spend on installation of covered conductor. Liberty plans to steadily increase its covered conductor program through the plan cycle and intends to ultimately replace all overhead primary distribution conductors with covered conductor in the decade to come. Additionally, Liberty plans to allocate approximately another quarter of its budget to vegetation management initiatives, including remediation of at-risk species (16 percent) and fuel management work (8 percent).

#### **6.5.1. Risk Assessment and Mapping**

This section of the WMP requires the filer to discuss the risk assessment and mapping initiatives implemented to minimize the risk of its equipment causing wildfires. Filers must describe initiatives related to maps and modelling of overall wildfire risk, ignition probability, wildfire consequence, risk-reduction impact, match-drop simulations, and climate/weather driven risks. This section also requires the electrical corporation to provide data on spending, miles of infrastructure treated, spend per treated line mile, ignition probability drivers targeted, projected risk reduction achieved from implementing the initiative, RSE, and other (i.e., non-ignition) risk drivers addressed by the initiative.

Liberty does not currently have the tools or models necessary for risk mapping. The utility stated that it is in the process of developing a risk mapping tool that would provide the ability to conduct dynamic analysis of incident reporting by overlaying various maps of the utility territory. This software will be able to show ignition probability by circuit.

Climate/weather driven risk mapping, initiative mapping and PSPS risk reduction impacts are all on the company's agenda before its next General Rate Case in 2021 and would be included in the next WMP cycle. As noted by the Public Advocates Office, Liberty's GIS data and asset inventory requires improvement in the 2021 WMP filing.

### ***Deficiencies and Conditions - Risk assessment and mapping***

While vague as to timelines beyond next year, Liberty said it will continue to evaluate its risk mapping capability and make refinements as warranted. Although it states its near-term intentions in specific terms, Liberty does not provide much detail on how it expects to use the risk mapping capability in its decision-making or how it will evaluate effectiveness. Liberty also did not provide any cost estimates for this initiative.

*Deficiencies such as these are not unique to Liberty. As such, this deficiency and associated condition is addressed in the Guidance Resolution, WSD-002.*

### **6.5.2. Situational Awareness and Forecasting**

The situational awareness and forecasting section of the WMP requires the filer to discuss its use of cameras, weather stations, weather forecasting and modeling tools, grid monitoring sensors, fault indicators, and equipment monitoring. Situational awareness requires the electrical corporation to be aware of actual ignitions in real time, and to understand the likelihood of utility ignitions based on grid and asset conditions, wind, fuel conditions, temperature and other factors.

The WMP Guidelines refer to key situational awareness measures, including:

- 1) Installation of advanced weather monitoring and weather stations that collect data on weather conditions so as to develop weather forecasts and predict where ignition and wildfire spread is likely,
- 2) Installation of high definition cameras throughout an electrical corporation's service territory, with the ability to control the camera's direction and magnification remotely,
- 3) Use of continuous monitoring sensors that can provide near real-time information on grid conditions,
- 4) Use of a fire risk or fire potential index that takes numerous data points in given weather conditions and predicts the likelihood of wildfire, and
- 5) Use of personnel to physically monitor areas of electric lines and equipment in elevated fire risk conditions.

Liberty's situational awareness plans consist of 10 weather stations installed in 2019 plus an additional 40 weather stations by 2021, featuring fuel moisture and precipitation sensors. It is also in the process of developing a Fire Potential Index (FPI), a utility best practice, which it expects to be fully functional before the upcoming wildfire season.

These initiatives will support more advanced weather forecasting and help evaluate the need for PSPS events. In 2019, Liberty contracted to develop weather monitoring and notification tools to warn of potential elevated fire risks.

In addition, Liberty is installing Distribution Fault Anticipation sensors to identify line failure events that could precipitate ignitions.

The electrical corporation's strengths lie in pursuing several sophisticated measures not typical of smaller utilities. Its plan to expand weather stations throughout its territory illustrates forward thinking strategy, and its development of the tools to use data from its system is appropriate.

Its \$615,000 budget for advanced weather monitoring and stations from 2020-2022 represents a continuation of its 2019 actual spending. Liberty plans a substantive investment in continuous monitoring sensors in 2021 and 2022.

### **6.5.3. Grid Design and System Hardening**

The grid design and system hardening section of the WMPs examine how the filer is designing its system and what it is doing to strengthen its distribution and transmission system and substations to prevent catastrophic wildfire. The grid design and system hardening WMP section also requires discussion of routine and non-routine maintenance programs, including whether the filer replaces or upgrades infrastructure proactively rather than running facilities to failure. Programs in this category, which often cover the most expensive aspects of a WMP, include initiatives such as the installation of covered conductors to replace bare overhead wires, undergrounding of distribution or transmission lines, and pole replacement programs. The filer is required, at a minimum, to discuss grid design and system hardening in each of the following areas:

- 1) Capacitor maintenance and replacement,
- 2) Circuit breaker maintenance and installation to de-energize lines upon detecting a fault,
- 3) Covered conductor installation,
- 4) Covered conductor maintenance,
- 5) Crossarm maintenance, repair, and replacement,

- 6) Distribution pole replacement and reinforcement, including with composite poles,
- 7) Expulsion fuse replacement,
- 8) Grid topology improvements to mitigate or reduce PSPS events,
- 9) Installation of system automation equipment,
- 10) Maintenance, repair, and replacement of connectors, including hotline clamps,
- 11) Mitigation of impact on customers and other residents affected during PSPS event,
- 12) Other corrective action,
- 13) Pole loading infrastructure hardening and replacement program based on pole loading assessment program,
- 14) Transformers maintenance and replacement,
- 15) Transmission tower maintenance and replacement,
- 16) Undergrounding of electric lines and/or equipment,
- 17) Updates to grid topology to minimize risk of ignition in HFTDs, and
- 18) Other/not listed items if an initiative cannot feasibly be classified within those listed above

Liberty's grid design and system hardening plan is narrowly focused on an increasing effort to replace bare wire with covered conductor in the next three years. While the number of line miles is just 26 miles, these are located in remote areas with difficult terrain.

Liberty also projects higher levels of spending for Expulsion Fuse Replacements, installations of system automation equipment, and Pole Loading Infrastructure Hardening and Replacement. Liberty also contemplates limited line undergrounding but faces significant costs in doing so. A single line-mile of undergrounding included in the WMP for 2021 is estimated at between \$5 million and \$6.1 million/mile. This compares with 4 miles of undergrounding planned for 2020 with an estimated cost of \$481,000/mile or \$1.75 million total.

Liberty does not have additional grid design measures that are intended to mitigate PSPS impacts. A proposed microgrid project, planned for 2020, would provide backup power to a limited number of customers.

Overall, Liberty is showing ambition to pursue a limited set of grid hardening initiatives which are appropriate for its terrain and risk profile, although relatively costly.

***Deficiencies and Conditions - Grid design and system hardening***

*Deficiency (LIB-1, Class B): Liberty did not describe methods for tracking effectiveness of its covered conductor initiative.*

Although Liberty asserts intention to extensively deploy covered conductor throughout its entire service territory, Liberty has not developed a method for tracking the effectiveness of its planned covered conductor installations or studied the structural impacts that such a broad deployment would create on the existing overhead infrastructure across its service territory.

*Condition (LIB-1, Class B):* In its first quarterly report, Liberty shall:

- i) Describe a methodology for tracking and measuring the effectiveness of its covered conductor installations at reducing the frequency and probability of:
  - i. outages for top 10 outage causes based on best available historical data; and
  - ii. ignitions for all CPUC reportable ignitions; and
- ii) Describe the magnitude and scope of the structural impacts of broad covered conductor deployment across its existing overhead facilities, the associated asset replacement consequences by asset type, and the estimated cost of those associated replacements.

#### **6.5.4. Asset Management and Inspections**

The asset management and inspections portion of the WMP Guidelines requires the filer to discuss power line/infrastructure inspections for distribution and transmission assets within the HFTD, including infrared, LiDAR, substation, patrol, and detailed inspections, designed to minimize the risk of its facilities or equipment causing wildfires. The filer must describe its protocols relating to maintenance of any electric lines or equipment that could, directly or indirectly, relate to wildfire ignition. The filer must also describe how it ensures inspections are done properly through a program of quality control.

Liberty's asset management and inspection programs are largely driven by compliance with Commission General Order 165 and GO 174. Its most extensive program appears to be pole loading assessment to determine safety factors. Rising from an actual 2019 expenditure of less than \$1 million, Liberty expects to spend over \$9.5 million on the program over the next three years.

About 70 percent of Liberty's allocated funds for this area are for inspections. Liberty is moving from paper tracking to electronic tracking of inspection findings, which is an improvement over current practice.

### **6.5.5. Vegetation Management and Inspections**

This section of the WMP Guidelines requires filers to discuss vegetation inspections, including inspections that go beyond existing regulation, as well as infrared, LiDAR, and patrol inspections of vegetation around distribution and transmission lines/equipment, quality control of those inspections, and limitations on the availability of workers. The filer must also discuss collaborative efforts with local land managers to leverage opportunities for fuel treatment activities and fire break creation, methodology for identifying at-risk vegetation, how trim clearances beyond minimum regulations are determined, and how the filer considers and addresses environmental and community impacts related to tree trimming and removal (erosion, flooding, and the like).

Liberty's vegetation management and inspection programs consist of routine inspections along all distribution lines, and trimming/removal of vegetation to conform with required laws and regulations. Liberty reports on page 74 of its WMP that it has 50 miles of overhead conductor in its Tier 3 HFTD and that it plans to conduct annual inspections on these lines. Separately, in Table 13, Liberty reports a total of 69 overhead circuit miles in Tier 3 HFTD in urban areas, 39 miles in rural areas, and 16 miles in highly rural areas for a total of about 123 circuit miles of overhead distribution in HFTD Tier 3.

Liberty plans to allocate approximately one quarter of its total mitigation budget to vegetation management initiatives, including remediation of at-risk species (16 percent) and fuel management work (8 percent).

Liberty's planned spend per HFTD circuit-mile at \$63,000 is at the low end of the Small Multi-Jurisdictional Utilities (SMJUs) and is approximately 5 percent of Bear Valley Electric Service's planned spend per HFTD circuit-mile.

Liberty is engaged in a multi-jurisdictional Forest Resiliency Corridor Project, with wider clearances (up to 175 feet on each side of lines in Zone 2, and 1,000 feet on each side of lines) in Zone 3.

#### ***Deficiencies and Conditions - Vegetation management and inspections***

Liberty provides inconsistent data regarding the number of overhead miles in HFTD Tier 3.

*Data inconsistency is not unique to Liberty. As such, this deficiency and associated condition are addressed in the Guidance Resolution, WSD-002.*

*Deficiency (LIB-2, Class B): Liberty reports inspection frequencies that raise concerns about effectiveness. Liberty is only planning for annual inspections in Tier 3, and a three-year cycle for other areas. This has proven to be inadequate to address grow-ins and fall-ins and has led to numerous instances of Public Resources Code (PRC) violations being identified. Similarly, Liberty's third-party contractor reviews the inspection process every three years. This appears to be too long of a delay to identify deficiencies in the program which may impact ignition potential.*

*Condition (LIB-2, Class B): In its first quarterly report, Liberty shall:*

- i) justify its three-year cycle;
- ii) report how it is meeting its PRC clearance requirements; and
- iii) if its current inspection cycle is insufficient to avoid violations of clearance requirements, explain how they will resolve those deficiencies, including potential increases in frequency of inspections, reviews and audits.

#### **6.5.6. Grid Operations and Operating Protocols**

The grid operations and operating protocols section of the WMP requires discussion of ways the filer operates its system to reduce wildfire risk. For example, disabling the reclosing function of automatic reclosers<sup>6</sup> during periods of high fire danger (e.g., during Red Flag Warning conditions) can reduce utility ignition potential by minimizing the duration and amount of energy released when there is a fault. This section also requires discussion of work procedures in elevated fire risk conditions, PSPS events and protocols, and whether the filer has stationed and on-call ignition prevention and suppression resources and services.

Liberty's grid operation plans and operating protocols consist largely of a continuing effort to replace older reclosers and line air switches with newer equipment. Its goals are to allow for better sectionalizing of circuits in PSPS events and to enable Distribution Automation Control in the next three years. Liberty's

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<sup>6</sup> A recloser is a switching device that is designed to detect and interrupt momentary fault conditions. The device can reclose automatically and reopen if a fault condition is still detected.

projected \$1.2 million budget for recloser replacements is mostly scheduled for 2021. The utility projects installing 4 reclosers per year.

Otherwise, Liberty points to other areas, including grid hardening and improved weather monitoring to support its operations and wildfire preparedness. Liberty's elevated fire risk procedures are overseen by a Fire Safety Leader to assess risk, identify areas to be extinguished and deploying resources. The work will be guided through the use of a wind/weather forecast tool referenced in the Situational Awareness section.

Appendix B, Figure 1.5b shows Liberty's total annual RFW circuit mile days for each reporting year. This figure is leveraged as a proxy for differentiating fire weather potential (as a function of RFWs) year over year for each IOU. The figure in Appendix B, Figure 2.8b displays annual customer hours of PSPS events normalized across the WMP-defined metric of RFW circuit mile days. The intent of this normalizing metric is to account for varying fire weather conditions using a common metric of RFWs.

As shown in Appendix B, Figure 2.9b, Liberty reports its highest acreage burned rate and total acres burned in 2016. Interestingly, Appendix B, Figure 1.5b illustrates that in 2016 Liberty experienced its least amount of RFW circuit mile days in the past five years, indicating there may not be a strong correlation between these two metrics in Liberty's service territory.

Liberty's reported statistics for red flag warning circuit mile days are low, even when compared to other SMJUs, and varies with no clear trend.

### ***Deficiencies and Conditions - Grid operations and operating protocols***

*Deficiency (LIB-3, Class C): Liberty's WMP does not report detailed information about how its grid operations will reduce wildfire risk.*

Liberty does not articulate how it plans to evolve grid operations to drive reduction in wildfire risk. While installation of additional automated SCADA and improvements in weather forecasting are positive, Liberty is not demonstrating enough forward progress.

*Condition (LIB-3, Class C): In its 2021 WMP update, Liberty shall:*

- i) identify a more ambitious growth path for maturing grid operations that may serve as preventative mitigations against wildfires to drive reduction in wildfire risk.

### **6.5.7. Data Governance**

The data governance section of the WMP Guidelines seeks information on the filer's initiatives to create a centralized wildfire-related data repository, conduct collaborative research on utility ignition and wildfire, document and share wildfire-related data and algorithms, and track and analyze near miss data.

Liberty's data governance plans consist of a very limited platform for storage and utilization of data. A SharePoint platform is expected to be in use by this upcoming fire season, and it will be managed and refined over time.

One of Liberty's stronger initiatives is their proposed collaboration with University of Nevada Reno to study high impedance faults in its service territory, as well as its planned deployment of Distribution Fault Anticipation on 10 distribution feeders in Tier 2 and Tier 3 zones.

Liberty's goals are appropriate and achievable but are focused mainly on completing and maintaining current projects.

*Deficiency (LIB-5, Class B): Data Governance<sup>7</sup>*

Liberty's data governance program including its GIS data and asset inventory requires improvement before the 2021 WMP filing.

Condition (LIB-5, Class B): Liberty should confer with CAL FIRE and the WSD to fill in gaps in its GIS data in preparation for its 2021 WMP update. Liberty is also directed to include in quarterly reports to the WSD updates on the progress of its data governance upgrades, until Liberty's system-wide survey, asset inventory database, and upgrades to its GIS system have modernized or Liberty is otherwise directed.

### **6.5.8. Resource Allocation Methodology**

The resource allocation section of the WMPs requires the filer to describe its methodology for prioritizing programs to minimize the risk of its equipment or facilities causing wildfires in the most cost-efficient manner. This section requires filers to discuss risk reduction scenario analysis and provide an RSE analysis for each aspect of the plan.

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<sup>7</sup> Deficiency and Condition LIB-5 was added in response to comments on Resolution WSD-007. For this reason, Deficiency and Condition LIB-5 appear out of order from other deficiencies and conditions.

Liberty has not developed a resource allocation or risk assessment methodology other than its Enterprise Risk Management practices. Their view is looking at risk as an aggregate rather than looking on a mitigation by mitigation basis. Currently, probability and consequence modeling, quantitative analysis, and metrics are not used by the utility to determine its risk reduction.

Liberty intends to develop a more relevant resource allocation methodology, incorporating current aspects of RAMP/S-MAP methodologies, for its 2021 GRC. They are developing a risk-based decision making (RBDM) framework which will be integrating weather data from its own weather station system data and consequences for utility-caused fires ignitions, which should provide a modeling approach to evaluate wildfire risks in the future.

Appendix B, Figure 3.1b shows Liberty's total planned spend during the plan period (2020-2022) is estimated to be \$88 million. This represents a significant increase from the \$7 million spent on similar activities in 2019.

While generally evenly dispersed in each year, averaging \$29.3 million per year, Liberty projects \$32 million in 2021, dropping to \$27 million in 2022. The difference appears to be related to a \$6 million undergrounding project.

### ***Deficiencies and Conditions - Resource allocation methodology***

Liberty has also not yet applied RSE to its decision-making process, making it difficult to assess the expected cost-effectiveness of wildfire mitigations.

*Deficiencies such as these are not unique to Liberty. As such, this deficiency and associated condition is addressed in the Guidance Resolution, WSD-002.*

### **6.5.9. Emergency Planning and Preparedness**

The WMP Guidelines require a general description of the filer's overall emergency preparedness and response plan, including discussion of how the plan is consistent with legal requirements for customer support before, during and after a wildfire, including support for low income customers, billing adjustments, deposit waivers, extended payment plan, suspension of disconnection and nonpayment fees, and repairs. Filers are also required to describe emergency communications before, during, and after a wildfire in English, Spanish, and other languages required by the Commission

The WMP Guidelines also require discussion of the filer's plans for coordination with first responders and other public safety organizations, plans to prepare for and restore service, including workforce mobilization and prepositioning of equipment and employees, and a showing that the filer has an adequate and trained workforce to promptly restore service after a major event.

Liberty's emergency planning and preparedness plans consist of compliance with Public Utilities Code sections 768.6 and 8386 requirements for emergency preparedness and response plans. The description of its program appears adequate to meet these standards, although the utility acknowledges challenges in recruiting and retaining adequate staff. With regard to staffing for service restoration, Liberty's WMP identified the need to hire a Fire Prevention Coordinator and a Fire Operations Specialist.

### ***Deficiencies and Conditions - Emergency planning and preparedness***

One area of concern is Liberty's relatively small workforce. Currently, it is addressing limitations via mutual aid agreements with other utilities and organizations. The plan does not address a circumstance in which a region-wide emergency might limit the ability of mutual aid partners to respond to requests for assistance.

*Deficiencies such as these are not unique to Liberty. As such, this deficiency and associated condition is addressed in the Guidance Resolution, WSD-002.*

*Deficiency (LIB-4, Class B): Liberty notes the challenge of attracting and retaining employees in the high-cost Lake Tahoe community.*

Liberty identifies the high cost of living in its service territory as a potential labor challenge for WMP implementation but provides no discussion regarding its plans or strategy for labor recruitment.

*Condition (LIB-4, Class B): In its first quarterly report, Liberty shall detail:*

- i) its recruitment and retention strategy for labor, considering the high cost of living in its service territory, and
- ii) how it plans to deal with this constraining factor in scaling its WMP programs and initiatives.

### **6.5.10. Stakeholder Cooperation and Community Engagement**

The final topic covered in Section 5 relates to the extent to which the filer will engage the communities it serves and cooperate and share best practices with

community members, agencies outside California, fire suppression agencies, forest service entities and others engaged in vegetation management or fuel reduction.

Liberty's stakeholder cooperation and community engagement is nascent, with little or no activity reported to date but expectations for improvement. In 2020, it plans to commence a two-phased stakeholder engagement process: continuing an Expert Working Group engagement to inform the next WMP; and Public Outreach for Plan Review. The latter will involve community workshops in 10 identified locations (with others to be determined). The WMP proposes a \$75,000 budget for these activities in 2020, and no other years.

Liberty's protocols for PSPS notification and service restoration comply with recently revised Commission rules and guidance decisions.

## **7. Maturity Evaluation**

In 2020, the WSD introduced a new Utility Wildfire Mitigation Maturity Model, to establish a baseline understanding of utilities' current and projected capabilities and assess whether each utility is progressing sufficiently to improve its ability to mitigate wildfire risk effectively. The maturity model also serves as an objective means of comparing across utilities and provides a framework for driving utility progress in wildfire risk mitigation over time. WMP filers were required to complete a survey in which they answered specific questions which assessed their existing and future wildfire mitigation practices across 52 capabilities at the time of filing and at the end of the 3-year plan horizon. The 52 capabilities are mapped to the same 10 categories identified in Section 5 above.<sup>8</sup>

The maturity model will continue to evolve each year to reflect best practices and lessons learned. With the inaugural use of the maturity model in 2020, it is important to note that the resulting maturity score is to be informative of a utility's capabilities within the context of the underlying assessment criteria. Accordingly, it is essential that the maturity assessment scores are understood within the context of the qualitative detail supporting each score. The model results require context and should not be interpreted as the final word on an electrical corporation's wildfire mitigation capabilities without an understanding of the scoring process described in the Guidance Resolution. As such, the final maturity model outputs should be viewed as levels or thresholds – they are not absolute scores.

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<sup>8</sup> A detailed description of the purpose and use of the maturity model is provided the Guidance Resolution being issued concurrently with the instant Resolution.

Liberty's initial maturity model assessment reveals that it is in the early stages of its maturity in most areas and is focused on building foundational capabilities for (G.) data governance and developing its (H.) resource allocation methodologies. The maturity model results give somewhat less attention to advancing its current capabilities for (A.) risk assessment & mapping, (B.) situational awareness, and (F.) grid operations capabilities.

Liberty's development in these foundational, enabling capabilities provides an opportunity for the WSD and the Commission to guide this development and drive towards increased transparency and standardization in decision-making. As shown in Section 1.3 of Appendix C, Liberty generally projects growth across all 10 categories between 2020 and 2023.

Admittedly at or near the starting point for developing the majority of capabilities (44 out of 52), Liberty appears to be strategically focused on achieving stronger than incremental improvements in about half of the identified areas between 2020 and 2023.

As mentioned, data governance activities are a strong area of attention, and Liberty intends to substantially improve all four capabilities: data collection and curation, data transparency and analytics, near miss tracking, and data sharing with the research community. By 2023, Liberty expects to be at or near the top level for all these capabilities.

Not quite so ambitious growth is projected for each of the six areas associated with improving (H.) resource allocation methodology. But Liberty is targeting better than incremental maturation of scenario analysis, use of RSE for determining mitigations related to vegetation management and system hardening, and portfolio-wide innovations in new wildfire mitigations.

Liberty's efforts in the (C.) grid design and system hardening category appear to be focused on cost efficiency and grid design and innovation. However, its activities related to (E.) vegetation management are largely static over the three-year period. While it intends to build upon current inventory for condition assessment capabilities, and improve Quality Assurance/Quality Control of its VM programs, Liberty is holding steady on other aspects, such as inspection cycles and effectiveness, and mitigations to limit fall-in and grow-in contacts.

Other areas where Liberty is putting an effort on substantively maturing its operations include: Asset maintenance and repair, ignition prevention and wildfire

detection. Surprisingly, however, it does not project much if any advancement of its other risk assessment & mapping or situational awareness capabilities.

With regard to (I.) emergency planning and preparedness, Liberty's priority appears to be greatly improving its protocols to learn from wildfire events. It projects general improvement to (J.) stakeholder co-operation and community engagement, although no growth is projected for community engagement in developing mitigation initiatives or advancing collaboration for mitigation planning.

It intends to achieve better than incremental growth for most of its targeted capabilities. It would be expected that the results of these efforts will result in re-prioritization in the future.

## **8. Impact of COVID-19 Pandemic**

After Liberty submitted its WMP, on March 19, 2020, California Governor Gavin Newsom signed Executive Order N-33-20 requiring Californians to stay at home to combat the spread of the COVID-19 virus. Specifically, Governor Newsom required Californians to heed the order of the California State Public Health Officer and the Director of the California Department of Public Health that all individuals living in California stay home or at their place of residence, except as needed to maintain continuity of operation of the federal critical infrastructure sectors, in order to address the public health emergency presented by the COVID-19 disease (stay-at-home order).<sup>9</sup>

As articulated in the March 27, 2020, joint letters<sup>10</sup> of the WSD, CAL FIRE and the California Governor's Office of Emergency Services regarding essential wildfire and PSPS mitigation work during COVID-19 sent to each electrical corporation, electrical corporations are expected to continue to prioritize essential safety work. The WSD expects the electrical corporations to make every effort to keep WMP implementation progress on track, including necessary coordination with local jurisdictions. Such effort is essential to ensuring that electrical corporations are prepared for the upcoming and subsequent wildfire seasons, while complying with COVID-19 restrictions requiring residents to shelter-in-place, practice social

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<sup>9</sup> Executive Order N-33-20. Available at <https://covid19.ca.gov/img/Executive-Order-N-33-20.pdf>.

<sup>10</sup> <https://www.cpuc.ca.gov/covid/>. Letters to each electrical corporation are found under the heading: "Other CPUC Actions", March 27, 2020: Joint Letters to IOUs re: Essential Wildfire and PSPS Mitigation Work.

distancing, and comply with other measures that California's public health officials may recommend or that Governor Newsom or other officials may require in response to the COVID-19 pandemic.

Furthermore, the WSD expects the electrical corporations to continue to make meaningful progress on PSPS mitigation goals, including continuing with sectionalization projects, local outreach and coordination, establishing customer resource centers, and microgrid projects. Electrical corporations are expected to limit planned outage work during this time to wildfire mitigation, PSPS reduction, projects that immediately impact reliability if delayed, and emergency/public safety outages. In addition, electrical corporations are expected to undertake any other critical work related to operating a safe and reliable grid and to mitigate wildfire and/or PSPS risk.

## 9. Conclusion

- Liberty's Wildfire Mitigation Plan contains all of the elements required by AB 1054, Pub. Util. Code Section 8386(c) and all the elements required by the WMP Guidelines.
- Liberty's WMP is approved by the WSD, subject to the conditions set forth in Appendix A.

## 10. Comments

A draft of this Resolution was served on the service list for R.18-10-007. Comments were allowed under Rule 14.5 of the Commission's Rules of Practice and Procedure. The WSD accepted one set of comments per stakeholder that collectively addressed Draft Resolutions WSD-002 – WSD-009, which represent the totality of the WSD's evaluation of the 2020 WMPs.

The following stakeholders served timely comments on the WMP Draft Resolution for Liberty Utilities WSD-007: Public Advocates and GPI.

**This resolution is changed to reflect issues raised by Public Advocates and GPI regarding data governance.**

## Findings

1. AB 1054 and Commission Resolution WSD-001 require Liberty to file a WMP for 2020 that conforms with Pub. Util. Code § 8386(c) and guidance provided by the WSD and served on the R.18-10-007 service list on December 16, 2019 by ALJ ruling.

2. The WMPs were reviewed and acted upon with due consideration given to comments received from governmental agencies, the WSAB, members of the public, and all other relevant stakeholders.
3. The WMPs were reviewed and acted upon in compliance with all relevant requirements of state law.
4. Liberty's WMP contains all of the elements required by AB 1054, Pub. Util. Code § 8386(c).
5. Liberty has satisfied the requirements of Pub. Util. Code § 8386(c) and the WMP Guidelines.
6. Appendix A contains findings regarding deficiencies in Liberty's WMP.

**THEREFORE, IT IS ORDERED THAT:**

1. Ratification of the Wildfire Safety Division's approval of Liberty Utility/CalPeco Electric's Wildfire Mitigation Plan is subject to conditions set forth in Appendix A.
2. The Wildfire Safety Division's approval of Liberty Utility/CalPeco Electric's 2020 Wildfire Mitigation Plan, conditioned upon Liberty's compliance with the conditions listed in Appendix A, is hereby ratified.
3. Liberty Utilities/CalPeco Electric shall submit an update to its Wildfire Mitigation Plan in 2021 according to the forthcoming guidance and schedule issued by the Wildfire Safety Division.
4. Liberty Utilities/CalPeco Electric shall submit a new comprehensive 3-year Wildfire Mitigation Plan in 2023.
5. Nothing in this Resolution should be construed as approval of the costs associated with Liberty Utility/CalPeco Electric's Wildfire Mitigation Plan mitigation efforts.
6. Liberty Utilities/CalPeco Electric may track the costs associated with its Wildfire Mitigation Plan in a memorandum account, by category of costs, and shall be prepared for Commission review and audit of the accounts at any time.
7. Liberty Utilities/CalPeco Electric shall submit a letter to the Wildfire Safety Division containing any updates to scope, timing or other aspects of any mitigation set forth in its Wildfire Mitigation Plan as result of the COVID-19 pandemic, including Public Safety Power Shutoff. The letter shall list items using the same names and sections used in the Wildfire Mitigation Plan and give a thorough description of why the COVID-19 pandemic requires the specified action. The letter shall be submitted within 60 days of issuance of this Resolution and shall be addressed to the Director of the Wildfire Safety Division. The letter shall be emailed to [wildfiresafetydivision@cpuc.ca.gov](mailto:wildfiresafetydivision@cpuc.ca.gov) with service on the service list of Rulemaking 18-10-007. If there are no changes to report, no such submission is required.

8. Nothing in this Resolution should be construed as a defense to any enforcement action for a violation of a Commission decision, order, or rule.

This Resolution is effective today.

I certify that the foregoing resolution was duly introduced, passed and adopted at a conference of the Public Utilities Commission of the State of California held on June 11, 2020; the following Commissioners voting favorably thereon:

/s/ ALICE STEBBINS

Alice Stebbins  
Executive Director

MARYBEL BATJER  
President

LIANE M. RANDOLPH  
MARTHA GUZMAN ACEVES  
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