PUBLIC UTILITIES COMMISSION
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June 11, 2020

Wildfire Safety Division Action Statement on PacifiCorp's 2020 Wildfire Mitigation Plan

This Action Statement is the conditional approval of PacifiCorp's Wildfire Mitigation Plan (WMP) and is presented to the California Public Utilities Commission (CPUC) for ratification, via the associated Resolution and Guidance Resolution.

Introduction

Wildfires have caused significant social, economic, and environmental damage on a global scale. In California, electric utilities are responsible for some of the most devastating wildfires in recent years. The Wildfire Safety Division (WSD) recognizes that the wildfire threat is only increasing, with utility-related ignitions responsible for a disproportionate share of wildfire-related consequences. To that end, the WSD has a vision of moving towards a sustainable California, with no catastrophic utility-related wildfires, that has access to safe, affordable, and reliable electricity. The WSD recognizes it is critical for utilities to act quickly to reduce utility-related wildfire risk effectively and prudently.

As utility wildfire mitigation has become an increasingly urgent priority, the California Legislature has passed several bills related to utility wildfire prevention and oversight. The main regulatory vehicle for the WSD to regulate utilities in reducing utility wildfire risk is the Wildfire Mitigation Plan (WMP), which was introduced in Senate Bill (SB) 1028 (Hill, 2016) and further defined in SB 901 (Dodd, 2018), Assembly Bill (AB) 1054 (Holden, 2019), and AB 111 (Committee on Budget, 2019). Investor-owned electric utilities are required to submit WMPs assessing their level of wildfire risk and providing plans for wildfire risk reduction. The first WMPs under the SB 901 framework were submitted by the utilities and evaluated by the CPUC in 2019.

AB 1054 and AB 111 transferred responsibility for evaluation and approval of WMPs to the WSD,[1] which, as of July 2021, will transfer and become the Office of Energy Infrastructure Safety within the California Natural Resources Agency. In this role, the WSD must ensure utility wildfire mitigation efforts sufficiently address increasing utility wildfire risk. To support its efforts, the WSD is developing a draft long-term strategy and roadmap. This strategy and roadmap will inform the WSD's work in updating the WMP process and guidelines, and the WSD's evaluation of the WMPs.

AB 1054 mandates that the WSD complete its evaluation of WMPs within 90 days of submission. The utilities submitted 2020 WMPs on February 7, 2020. Upon completion of the past 90 days of evaluation, the WSD recognizes that the utilities have made significant progress. Compared to their first submissions in 2019, the utilities utilize much more data and objective content in their 2020 WMP filings and share more critical information with key partners. However, while utilities are already undertaking wildfire mitigation activities and building capabilities subject to regulation, all utilities must continue to make meaningful progress. Utilities' activities need to incorporate longer-

[1] With CPUC ratification of the WSD's actions.

term thinking by focusing more systematically on increasing their maturity over time. All utilities should take a more robust strategic approach that leverages additional Risk Spend Efficiency (RSE) data to focus on the most impactful actions – all with a local lens. This statement outlines more specifically what the WSD sees as critical priorities for the upcoming year for PacifiCorp and approves, with conditions, PacifiCorps's 2020 WMP. Together, this statement, the associated Resolution and the Guidance Resolution represent the totality of the WSD's conditional approval of PacifiCorp's 2020 WMP.

Background

To ensure that utility wildfire mitigation efforts sufficiently address increasing utility wildfire risk, new WMP Guidelines, a Utility Survey and a Maturity Model were launched for 2020. Together, these tools represent a milestone in the evolution of utilities' wildfire mitigation efforts and ensure consistency with the WSD's enabling legislation.

2020 Guidelines

The 2020 WMP Guidelines implement several changes to further enhance the depth, comparability and quality of utility WMP submissions. Specifically, the WMP Guidelines require reporting of consistent metrics, ignitions, risk data and specific utility initiatives to reduce wildfire risk. Utilities have provided historical metrics and data as a baseline, which can be used to evaluate a utility's wildfire risk level and to assess whether the utility's initiatives sufficiently address this risk. These metrics and data will be used to track utility progress in mitigating the risk of catastrophic wildfire over time.

Maturity Model and Utility Survey

In order to enhance the focus on safety, ensure consistent goals and evaluate performance, the WSD has developed a model for evaluating current and projected wildfire risk reduction performance. It is important to note that this model is not designed to immediately penalize utilities for poor performance, but rather it is an effort by the WSD to work collectively with the utilities it regulates[2] to facilitate improvement by identifying best practices, current strengths and current weaknesses across the utility landscape. The WSD believes it is in the best interest of the utilities, ratepayers and other key stakeholders to take this collaborative, growth-oriented approach. While certain utilities are currently on the low end of the range for various categories of performance, the WSD is hopeful that providing clear review and evaluation of performance, including identifying such weaknesses, will help drive change in the utilities, allowing all regulated electric utilities in California to improve wildfire risk reduction performance.
As a consequence, the model results are best interpreted as levels – the results are not absolute scores. A utility, for example, could be on the borderline for level 2 in the model, but it would remain at level 1 until it completed 100 percent of the steps required to cross the threshold to level 2. In this example, the way the model works is the utility would get a result of 1, not 1.8. The purpose of the model is not to penalize the utility for achieving a result of 1 but to identify the specific actions it can take to reach level 2.

[2] The WSD (ultimately the Office of Energy Infrastructure Safety) and the CPUC have complementary regulatory roles to fill in ensuring a strong oversight in reducing the risk of ignition of wildfires from utility infrastructure. The WSD, CPUC, and other relevant agencies will work together to ensure roles are defined and regulatory outcomes are met.

Summary of the WSD's Assessment

An effective WMP should have three, overarching components in which utilities should be striving to be "world class." First, the WMP should demonstrate an understanding of a utility's unique risk. Each utility should measure outcome and progress metrics and use a sophisticated model to lay the foundation for safe operation within its service territory. Second, with a deep understanding of its risk, the utility should deploy a suite of initiatives designed to incrementally and aggressively reduce that risk. Finally, this deployment should be done with a key, strategic eye toward maximizing every scarce resource, whether it be direct costs, personnel, or time, to maximize its impact. The result should be that with each passing year California is safer from wildfire threats, with a significant reduction and eventual elimination of the need to use Public Safety Power Shutoffs (PSPS) as a mitigation action.

The WSD evaluated 2020 WMPs considering the following factors:

- Completeness: The WMP is complete and comprehensively responds to the WMP requirements
- Technical feasibility and effectiveness: Initiatives proposed in the WMP are technically feasible and are effective in addressing the risks that exist in the utility's territory
- Resource use efficiency: Initiatives are an efficient use of utility resources
- Forward looking growth: The utility is targeting maturity growth

The WSD used the utilities' 2020 WMP submissions and subsequent updates, public comments, responses to the WSD's data requests, utility reported data and utility responses to the Utility Survey in its assessment of 2020 WMPs.

Upon completion of this review, the WSD then determined whether each utility's 2020 WMP should either be:

- Approved without conditions (Full Approval)
- Approved with conditions (Conditional Approval)
- Denied (Denial)

Pursuant to Public Utilities Code Section 8386.3(a), this Action Statement and the discussion found in the associated Resolutions is the outcome of the WSD's review of WMP and input from the public and other governmental agencies. As stated previously, this Action Statement is the conditional approval of PacifiCorp's WMP and is presented to the CPUC for ratification, via the associated Resolution and Guidance Resolution.

The conditions for approval of PacifiCorp's WMP are designed to address the gaps identified in its WMP. Some of the key deficiencies for PacifiCorp's WMP are summarized below. The associated Resolution and Guidance Resolution capture the WSD's comprehensive review of PacifiCorp's WMP submission.

Discussion of WMP Assessment

Summary

PacifiCorp serves sections of Northern California with about half of its grid in High Fire-Threat District (HFTD) areas. For PacifiCorp's plan to be effective with its finite resources, it is crucial to strategically prioritize initiatives by geographic location and by ignition driver to target the highest risk elements of PacifiCorp's grid.

PacifiCorp, like peer small and multijurisdictional utilities (SMJUs), has not been subject to Safety Model Assessment Proceeding (S-MAP) or Risk Assessment Mitigation Phase (RAMP) requirements and is thus just beginning the process of risk-informed decision making when it comes to wildfire mitigation activities. Therefore, PacifiCorp has outlined mitigation initiatives which generally address its major risk drivers but does not yet have the capability to justify these based on their risk reduction and lay out a risk-informed deployment strategy. PacifiCorp has outlined plans to improve its knowledge of ignition risk across its grid and the impact of different mitigation activities, both in its WMP and in its Utility Survey. To address specific gaps in PacifiCorp's plan the WSD has imposed specific conditions of approval.

Risk Assessment

PacifiCorp, like other small and multi-jurisdictional utilities (SMJUs), has not been subject to the S-MAP or RAMP requirements in the same way as the large IOUs. Its risk assessment capabilities are still elementary. Today, PacifiCorp's weather data does not reliably measure conditions in HFTD areas and there is no consistent equipment for detecting ignitions. For PacifiCorp, improving foundational capabilities in situational awareness and data governance is key to improving its risk assessment abilities and, ultimately, allowing for risk-informed decision making such that initiatives reliably, measurably, and effectively reduce wildfire risk.

PacifiCorp plans to address this need through initiatives to map ignition risk along the grid, install continuous monitoring equipment, and add weather stations. By 2023, PacifiCorp expects to have tools able to quantitatively estimate ignition risk across its grid with probability by specific failure modes. There are some gaps in PacifiCorp's plan, such as lack of explicit planning for climate change. The WSD has made its approval of PacifiCorp's WMP contingent upon addressing these gaps and looks forward to seeing PacifiCorp realize the commitments made in its WMP.

Initiatives

PacifiCorp's initiatives, which are the actions and programs PacifiCorp will take to reduce wildfire risk, address the major risk factors that PacifiCorp faces. PacifiCorp's largest investments are in system hardening initiatives and vegetation management initiatives: PacifiCorp plans to spend 68% of its budget on grid hardening and 22% on vegetation management.

PacifiCorp does not offer a thorough justification of its allocation of resource to the chosen system hardening initiatives or detail a risk-based deployment strategy. While the WSD recognizes that PacifiCorp is still building the risk assessment capabilities essential to that effort, it is important that PacifiCorp explicitly detail how it will measure the effectiveness of the initiatives chosen and use that information to inform future decision making. Furthermore, PacifiCorp currently lacks a robust electronic database to collect this initiative performance data as well as other important information, such as inspection findings and vegetation clearance data. Because data governance is a crucial enabler for risk-based decision making, it is important that PacifiCorp detail its investments in specific data governance initiatives. The WSD has imposed conditions of WMP approval on PacifiCorp so that these gaps will be resolved.

An effective vegetation management program will be particularly important for PacifiCorp, as 26% of average annual ignitions over the last 5 years have been caused by vegetation contact. However, few of PacifiCorp's vegetation management initiatives substantially exceed expectations of regulatory requirements. A business-as-usual compliance-oriented approach to wildfire mitigations is insufficient in the face of admittedly increasing wildfire risks. The WSD is imposing conditions to address this gap.

Resource Allocation Methodology

PacifiCorp currently lacks sufficient justification for its allocation of resources but states it will move towards providing an explanation for investment in each initiative, evaluating risk reduction from a combination of initiatives, and evaluating RSE based on total cost of ownership. The WSD recognizes that PacifiCorp and other SMJUs are just beginning to develop their methods for risk-based resource allocation, and expects that PacifiCorp cooperate with the related conditions imposed in order to accelerate this process in the face of an increasing wildfire crisis.

A detailed discussion of the above concerns, as well as, further analysis of PacifiCorp's WMP is articulated in the associated Resolutions, including a complete list of deficiencies and conditions in Appendix A of the associated Resolution for PacifiCorp.

Conclusion

Catastrophic wildfires remain a serious threat to the health and safety of Californians. Electric utilities, including PacifiCorp, must continue to make progress toward reducing utility-related wildfire risk. Through the conditional approval granted for its 2020 WMP submission, the WSD will ensure PacifiCorp is held accountable to successfully executing the wildfire risk reduction initiatives articulated in its 2020 WMP and required updates. The WSD expects PacifiCorp to meet the commitments in its 2020 WMP and fully comply with the conditions listed in Appendix A of its associated Resolution to ensure it is driving meaningful reduction of utility-related wildfire risk within its service territory.

Sincerely,

/s/ CAROLINE THOMAS JACOBS
Caroline Thomas Jacobs
Director, Wildfire Safety Division
California Public Utilities Commission

PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Resolution WSD-008
Wildfire Safety Division
June 11, 2020

R E S O L U T I O N

RESOLUTION WSD-008 Resolution Ratifying Action of the Wildfire Safety Division on PacifiCorp's 2020 Wildfire Mitigation Plan Pursuant to Public Utilities Code Section 8386.

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 PacifiCorp's Pacific Power Utility (PacifiCorp). PacifiCorp's 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 PacifiCorp's 2020 WMP in its Action Statement. In doing so, this Resolution analyzes the extent to which PacifiCorp'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 PacifiCorp, with conditions designed to ensure the WMP decreases risk of catastrophic wildfire in California.
- A list of conditions of approval is in Appendix A.
- Evaluates the maturity of PacifiCorp'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 PacifiCorp 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 all expenditures are just and reasonable at a future time in their General Rate Cases (GRC). 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 WMP 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.
- PacifiCorp 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

Proposed WMP costs	
Total costs 2020-2022	$101 million
Subtotal: 2020	$26 million
Subtotal: 2021	$38 million
Subtotal: 2022	$37 million

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SUMMARY

This Resolution acts on the attached Wildfire Safety Division's (WSD) approval, with conditions, of the Wildfire Mitigation Plan (WMP) submitted by PacifiCorp on February 7, 2020, and revised March 2, 2020. The Resolution finds that PacifiCorp is in compliance, subject to many conditions, 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 the WSD does 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,[3] 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

[3] Decisions (D.) 19-05-036, D.19-05-037, D.19-05-038, D.19-05-039, D.19-05-040 and D.19-05-041 (May 30, 2019).

WSD to review and approve, deny or approve with conditions the electrical 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 comment on the 2020 WMPs and develop and make recommendations related to the metrics used to evaluate WMPs in 2021 and beyond.[4]

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.[5] For 2020, the WMP Guidelines add requirements on detail, data, and other supporting information. The WMP Guidelines are designed to 1) 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. PacifiCorp submitted its WMP on that date. In response to data requests from the WSD, PacifiCorp revised and refiled its WMP on February 26, 2020.

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, 2020. 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, 2020 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.[6]

Stakeholders were also allowed to submit comments on the WMP, to which the electrical corporation replied. Stakeholders and members of the public commented

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[4] Pub. Util. Code § 8386.3 (Wildfire Safety Division), § 326.1 (Wildfire Safety Advisory Board).

[5] 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.

[6] Presentations, agendas and other details of the workshops appear on the Commission's WMP homepage, located at www.cpuc.ca.gov/wildfiremitigationplans/.

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 PacifiCorp's WMP was given by posting of the WMP on the WSD's webpage, at 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 PacifiCorp, the WSD issued three sets of data requests for missing information, clarification, and supplementation where necessary. Responses to these data requests were required to assess completeness of PacifiCorp's WMP, provide further clarity, and supplement data for the purposes of refining GIS maps. Upon completion of this review, the WSD determined whether each utility's 2020 WMP should be approved without conditions, approved with conditions, or denied.

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 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 identified a number of deficiencies in PacifiCorp's WMP, which can be found in Appendix A.

PacifiCorp's WMP contains all the elements of Pub. Util. Code Sec. 8386(c), and addresses each of the Guidelines, although some elements require additional data or analysis, as described in the body of this resolution.

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

PacifiCorp reports that it had begun several wildfire mitigation initiatives in 2018-19. However, it provides little analysis or data on how implementation of those initiatives is working to reduce its wildfire risks. PacifiCorp admits that "tracking metrics has not yet resulted in significant changes, lessons learned, or amendments to programs."[7] Further, PacifiCorp states that it does not expect that it will have results that will influence its programs until after the three-year period that this WMP cycle comprises.

Even though PacifiCorp has experienced limited utility-caused wildfires and damages, several of the metrics reported in its WMP show a steady increase in risk over the past five years While actual incident numbers are relatively low, due to the

[7] 2020 WMP, Page 18.

size of its territory, Appendix B, Figure 2.3b shows PacifiCorp's number of ignitions over its entire circuit has been increasing over the past five years, from all causes apart from wire-to-wire contact.

PacifiCorp also experienced a large increase in acreage burned due to utility ignitions in 2019, compared to prior years, as shown on Appendix B, Figure 2.9b. Again, the number of acres is small at 126, but it indicates wildfire risk conditions may be increasing.

There is other evidence of increased risk. In 2019, PacifiCorp reported 11 wildfire ignitions caused by utility equipment, up from an average of about 3 incidents per year in 2015-2018. This increase in ignitions occurred as extreme fire weather frequency, as represented by the prevalence and extent of Red Flag Warnings (RFWs) in its service territory, decreased for the second straight year and was below the previous five-year average.

PacifiCorp does not currently have a robust electronic database to collect and utilize inspection findings, vegetation clearance data, and other key information. The utility therefore lacks a solid foundation for applying performance metrics to future actions or decisions.

PacifiCorp's total number of reported ignitions is low. PacifiCorp, however, is not immune to future wildfire events. In fact, compared to peer utilities, PacifiCorp has two to three times as many near-miss incidents when normalized for overhead circuit miles, signaling a higher potential ignition risk. Details for this comparison can be found in Appendix B, Figure 2.2b.

PacifiCorp has offered a modest and limited set of mitigations, without providing a clear sense of how it intends to build upon them in either the near-term or beyond the three years covered by its 2020 WMP.

In the few instances where PacifiCorp projects its mitigation spending (for inspections and vegetation management to achieve clearances around electric lines and equipment, for example), it shows an essentially steady-state activity projection and spending plan for each of the years from 2020-2022.[8] The proposed spending is substantially greater than 2019 actual spending for similar activities, but it is difficult to assess whether it will be adequate to meet mitigation goals.

PacifiCorp's planned spend per High Fire Threat District (HFTD) circuit mile at $86,000 is the median of the Small and Multi-Jurisdictional Utilities (SMJU). PacifiCorp's planned spend is over 35 percent more than Liberty Utilities' but only

[8] WMP Revised Table 25 Vegetation management & Inspections.

approximately 7 percent of Bear Valley Electric Service's (BVES) planned spend per HFTD circuit mile.[9]

Such projections indicate a business-as-usual approach to wildfire mitigations, not a heightened sense of urgency. Much of PacifiCorp's proposed wildfire mitigation initiatives are meant to meet compliance with Commission rules and other statutory requirements, rather than to go beyond simple regulatory compliance.

PacifiCorp needs to improve its ability to analyze drivers of ignition probability beyond historic ignition data, and better show how this analysis is incorporated into its wildfire mitigation decision making and practices.

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 PacifiCorp'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 California Public Advocates Office and Green Power Institute (GPI) provided comments specific to PacifiCorp, although other organizations had comments for small utilities that could also apply to PacifiCorp.

GPI's general SMJU comments recommend that PacifiCorp and the other SMJUs 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: (i) Development of a risk-based decision-making framework, including Risk Spend Efficiency (RSE) values and thorough risk bowtie analyses; (ii) Establishment of more comprehensive, "living-document" tools, methods, and protocols; (iii)

[9] BVES' spend per HFTD circuit mile is an area of concern and is addressed in the Resolution addressing BVES' WMP.

Adoption of digitized versus paper forms and advanced system tracking; (iv) Assessment of run-to-failure asset replacement schedules and their impact on wildfire risk; (v) Vegetation management compliance and consideration of enhanced vegetation management that goes beyond simple regulatory compliance; (vi) Integration of mature wildfire modeling tools; (vii) 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 (viii) Examination of whether the rate of system hardening and increased system resiliency upgrades is adequate to reduce wildfire risk.

Specific to PacifiCorp, GPI's comments address the following issues:

- Lack of digitized vegetation management tracking systems;
- Lack of discussion of threshold conditions underlying asset replacement determinations;
- Lack of any consideration of use of tree-trimming residue for biomass generation fuels; and
- Lack of ability to detect and forecast near miss and ignition probability.

The Public Advocates Office recognizes that PacifiCorp appears to be in the early stages of its most important wildfire risk-reduction initiatives. Still, it noted that PacifiCorp lacks an electronic database for vegetation management; and it expressed concern that the utility is not focused on reducing potential de-energization events in its most at-risk areas.

It therefore recommends:

- The WSD closely monitor PacifiCorp's progress – particularly for system hardening – because the utility appears to be lagging on its 2019 programs;
- An Advice Letter filing in October 2020 for PacifiCorp to demonstrate significant progress on its goals.

In addressing Reply comments filed on April 16, 2020, PacifiCorp responds that:

- SMJUs have not previously been subject to the same risk assessment (Risk Assessment and Mitigation Phase (RAMP) and Safety Model Assessment Proceeding (S-MAP)) requirements as the large electrical corporations and therefore have a different baseline for data collection and risk-spend analysis.
- Cost recovery will be determined in a separate proceeding, but it is appropriate to accept approval of a WMP as the first building block of approving recovery for significant costs incurred by a utility.

- Approval of a WMP should mean that the proposed programs are approved and deemed reasonable.[10]
- The filing of an Advice Letter is an appropriate compliance mechanism for determining whether a three-year WMP will be necessary for 2021.
- PacifiCorp anticipates that it will be able to achieve targets for system hardening but agrees to revisit targets in future compliance filings.
- PacifiCorp will move forward with its plans of GIS and data upgrades and can provide a progress update in an October Advice Letter filing as recommended by the Public Advocates Office.
- The data of the large electrical corporations may be useful and informative but should not replace PacifiCorp's own data or judgment.
- PacifiCorp is already required to comply with community outreach requirements adopted in D.20-03-004, and it is not necessary to supplement the WMPs with duplicative requirements.

6. DISCUSSION

Although nearly half of PacifiCorp's 11,000 square mile service territory is located in High Fire Threat District (HFTD) areas, the company and its 45,000 customers have so far been spared the worst impacts from wildfires in the 2015-2020 period. Nonetheless, PacifiCorp lags its utility peers – even among the smaller jurisdictional entities – in developing processes for assessing its wildfire risks and developing wildfire mitigation beyond activities that it has traditionally pursued in compliance with general safety and reliability requirements.

There is little sense that the utility is building a strong foundation to address immediate concerns that can become a platform for better-informed, accelerated or more targeted initiatives in the longer term. The utility's mitigation plans are largely incremental to existing or already announced activities over the next three years, rather than providing a forward looking 10-year schedule and scope of activities.

While PacifiCorp has identified a number of near-term mitigations, especially in asset hardening, inspections, vegetation management, advanced protection and control strategies, situational awareness and operational response (more fully described in the relevant sections that follow), its focus appears to be on short-term and intermediate progress.

[10] Note: In response to the above points and other similar assertions, and noted elsewhere in this Resolution, approval of a WMP has no bearing on the utility's right to cost recovery.

In the few instances where PacifiCorp projects its mitigation spending (*e.g.,* for inspections and vegetation management to achieve clearances around electric lines and equipment), it shows an essentially steady-state activity projection and spending plan for each of the years from 2020-2022.[11] PacifiCorp plans to allocate nearly 70 percent of its budget on grid design and system hardening initiatives. Compared to peer utilities, PacifiCorp plans to allocate the largest percentage toward grid operations and protocols. Such projections indicate a business-as-usual approach to wildfire mitigations, not a heightened sense of urgency.

On the more positive side of the equation, while PacifiCorp seems to perceive itself at the beginning of its journey to address potential wildfires, it has expressed a strong interest in obtaining more guidance from the Commission on its expectations, and it intends to meet those expectations.

While PacifiCorp still lacks some of the most-up-to-date tools for assessing its risks, the utility's creation of a Project Management Office (PMO) is a welcome "best practice" to consolidate decision making and data collection efforts, rather than having them spread through the organization.[12] Though in its early stages, the PMO is expected to devise and implement a more robust quality assurance process throughout the life of proposed mitigation projects, and it will enhance planning, and tracking to completion the utility's mitigation projects.

The WMP complies with Pub. Util. Code Section 8386 and the Commission can ratify the Wildfire Safety Division's approval with conditions.

The following sections discuss in detail the WMP, its contents, required changes, and conditions imposed on approval in detail. They follow 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.

PacifiCorp provided the required information.

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[11] WMP Revised Table 25 Vegetation management & Inspections.

[12] WMP Section 5.3.3, Page 135.

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

In its WMP, PacifiCorp acknowledges that it is in "early implementation" of its multi-year process, and "tracking metrics has not yet resulted in significant changes, lessons learned, or amendments to its programs."[13] It also notes that many of its programs "are simply an extension or augmentation of scope to existing programs, such as inspection and correction programs" which target safety or reliability risk mitigations. [14]

In assessing PacifiCorp's performance against progress and outcome metrics, Appendix B, Figure 2.2b shows that over the past five years PacifiCorp's near miss incidents per circuit mile fluctuate year over year, with large variances of approximately +/- 40% annually. Compared to other SMJUs, PacifiCorp reports the highest average of near miss incidents per circuit mile. Although PacifiCorp's incidents per circuit mile fluctuate annually, over the past five years its number of ignitions has steadily increased across all ignition drivers except "wire-to-wire contact." As shown in Appendix B, Figure 2.9b, PacifiCorp reports its highest acreage burned rate and total acres burned in 2019. Interestingly, Appendix B, Figure 1.5b illustrates that in 2019 PacifiCorp experienced its second 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 PacifiCorp's service territory.

Deficiencies and Conditions

PacifiCorp recognizes that it lacks many of the data sets that have been requested in the Guidelines for completing the 2020 WMP filing, stating that "they are not readily available or representative of the typical data sets used by PacifiCorp to operate its system."[15] As such, PacifiCorp also lacks the experience to forecast weather and environmental conditions necessary to predict ignition drivers, or to apply system-wide data to location specific projects. The lack of data makes it challenging for the utility to complete data tables required by the WSD's WMP Guidelines.

Deficiencies related to data submissions are not unique to PacifiCorp. As such, this deficiency and associated condition is addressed in the Guidance Resolution, WSD-002.

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[13] WMP Sec. 21, Page 18.

[14] WMP Sec. 5.0, Page 87.

[15] Response to WSD Data Request PC 43879 G-247, March 6, 2020.

Despite its statements in the WMP, PacifiCorp has not completely considered lessons learned from prior years and the experiences of other utilities. It is not fully transparent about its plan's deficiencies or proactive about improvement moving forward. PacifiCorp's current focus seems to be more on maintaining the status quo rather than using data and metrics to improve capabilities.

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 RFW days, days with high wind conditions – 95th and 99th 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.

PacifiCorp's service territory spans 11,000 square miles and serves approximately 45,000 customers along the northern California border. PacifiCorp operates nearly 3,900 miles of electric transmission and distribution lines, over 80 percent of which is comprised of overhead lines and infrastructure. Approximately one-third of PacifiCorp's overhead lines are located in HFTD areas and nearly 60 percent of PacifiCorp's overhead lines are in wildland-urban interface (WUI) areas. The WUI is the area where human development meets or intermingles with unoccupied wildland and is a focal area for human-environment conflicts, such as wildfires.

Additionally, over half of PacifiCorp's service territory consists of highly rural areas, defined as an area with less than seven persons per square mile. This combination of predominantly overhead infrastructure located mostly in sparsely populated WUI areas, a quarter of which are also in HFTD areas, creates a potentially significant wildfire risk exposure for PacifiCorp. With respect to recent extreme fire weather conditions, as reflected by the incidence and extent of RFWs, over the past five years PacifiCorp's service territory experienced its most extreme fire weather days in 2017, which has declined steadily each year since.

In 2019, PacifiCorp reported 11 wildfire ignitions determined to have been caused by utility equipment, up from an average of about 3 incidents per year in 2015-2018. Five of these ignitions were located in HFTD Tier 2 areas. In total some 126 acres were burned in 2019, causing an estimated $225,700 in asset damages and $15,000 in damage to structures. Over the past five years, 2015 was the only fire season with any such reported damages, when two reported ignitions, both in what are now considered HFTD, caused nearly $100,000 in overall damages and $85,728 in damage to structures.

PacifiCorp's largest cause of ignitions in the five-year historical period (26 percent of all ignitions) was vegetation contact. Additionally, 17 percent of all ignitions were due to animal contact.

PacifiCorp also provided a table for incidents and ignitions in the last five-year period on its distribution lines during fire season. Of all the ignitions, 75 percent of the ignitions were during fire season. The largest differential was for vegetation contact drivers, with half (3 of 6 ignitions) during fire season.

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.

PacifiCorp ranks its top macro trends impacting ignition probabilities somewhat differently than other California electrical corporations, putting as its top four trends a) climate change, b) fuel density and moisture, c) utility infrastructure location in HFTD v. non-HFTD, and d) urban vs. rural infrastructure location. It is unclear, however, how PacifiCorp's planned strategies and mitigation programs directly address these concerns, aside from placing fuel moisture sensors on its limited network of weather stations.

PacifiCorp evaluates fire history against the current HFTD designations for its service territory and continues to believe that no changes in designation are needed at this time. As discussed elsewhere, PacifiCorp lacks a sophisticated risk assessment and mitigation evaluation methodology, which is key to evaluating its directional vision for mitigation.

PacifiCorp has never initiated a PSPS event, but its WMP provides a thorough discussion of efforts to date in developing PSPS protocols and targeting areas of its territory with the greatest potential for PSPS events. PacifiCorp comes to this issue well behind the larger electrical corporations, and it is still developing programs and processes in response to the Commission's PSPS decisions.

While PacifiCorp has not yet developed a set of mitigation projects specific to PSPS, its grid hardening and topology programs offer the potential to keep PSPS reliance at a minimum in the future. The WSD does not impose any conditions on this portion of PacifiCorp's WMP.

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) PacifiCorp 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.

As shown in Appendix B, Figure 3.8, PacifiCorp plans to allocate over 40 percent of its total planned spending for covered conductor initiatives, with increases every year during the plan period. The next largest allocation is made in another system hardening initiative, with approximately 20 percent of total planned spending distributed between transmission and distribution pole replacement programs. PacifiCorp allocates 10 percent of its total planned spending on vegetation clearance work and annual vegetation inspections in the HFTD.

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, risk spend efficiency, and other (*i.e.,* non-ignition) risk drivers addressed by the initiative.

PacifiCorp's risk assessment and forecasting plans consist of use of the existing California Fire Threat Map that illustrates overall ignition probability and quantifies specific geography that could be subject to elevated fire risk in HFTD areas. PacifiCorp relies solely on measures that are currently in place, primarily HFTD area designations, in assessing its PSPS potential. Since the Fire Map was put into practice, however, PacifiCorp has not undertaken more specific risk assessment. The utility believes its growing network of weather stations will provide more location-specific data in the future.

Deficiencies and Conditions – Risk assessment and mapping

PacifiCorp is severely lacking in modeling initiatives, instead relying on reactive measures to run its system and make decisions. The utility bases its risk assessments on the HFTD designations. PacifiCorp relies on the Fire Incident Reports required by the CPUC to analyze ignition probability, which fails to be proactive in any sense and largely ignores a multitude of data that would contribute to such probability.

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

Deficiency (PC-1, Class B): *PacifiCorp's WMP does not report adequate planning for climate change.*

Although it recognized climate change as a top macro trend of concern, PacifiCorp has not yet specifically engaged in planning for it. PacifiCorp stated in its WMP that when/if climate change impacted their service territory then an assessment would be conducted to determine a response.

PacifiCorp did not mention if climate modeling would be a necessary step in this process. This is a reactive versus a proactive approach to wildfire mitigation planning.

Condition (PC-1, Class B): In a first quarterly report, PacifiCorp shall:

i) describe how it incorporates climate change into risk models; and

ii) outline in detail how it plans to use these risk models to deploy wildfire initiatives

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 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.

We are concerned with PacifiCorp's modest approach to increasing its weather forecasting ability. In the near-term it does not appear to be able to employ real-time fire/weather monitoring. The utility also lacks the experience to forecast weather and environmental conditions necessary to predict ignition drivers, or to apply system-wide data to location-specific projects.

In order to improve its weather forecasting ability, PacifiCorp is in the process of calibrating ten existing weather stations to ensure they are in working condition prior to fire season. These stations will be useful for evaluation of weather events and potential PSPS events. PacifiCorp intends to install another ten stations over the next 1-3 years, but it does not project additional facilities over the next decade.

Deficiencies and Conditions – Situational awareness and forecasting

Deficiency (PC-2, Class B): PacifiCorp has not demonstrated effective weather station utilization.

PacifiCorp lacks sufficient weather station coverage in populated communities that border Tier 2 HFTD areas in its service territory. For example, PacifiCorp has no stations in Scott's Valley, Yreka or Hornbrook and does not plan on adding weather stations in these areas in the near-term. It is important to understand PacifiCorp's methodology for choosing where to put weather stations and its justification of why they are not in the identified communities. Weather stations in these areas could paint a picture of how weather systems are moving across PacifiCorp's whole territory.

Condition (PC-2, Class B): In its first quarterly report, PacifiCorp shall:

i. explain in detail how it chooses to locate its weather stations and explain gaps or areas of lower weather station density, and

ii. provide a cost/benefit analysis of the impact of having a higher density of weather stations across its territory.

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.

PacifiCorp's grid design and system hardening plans consist of limited new investments in covered conductor installation, distribution and transmission pole replacements, automated equipment and replacement of small size copper conductor.

The utility does not currently have programs for the other initiatives listed above, and consolidates some activities with others, so it does not provide any individual budget forecasts for those programs.

PacifiCorp's most significant program expansion appears to be its covered conductor installation project, where it plans to spend $11.6 million to replace up to 16 line-miles of transmission conductor over three years, and $30.8 million for 131 line-miles of distribution conductor replacement. There were no expenditures for this activity in 2019. Although embarking on a covered conductor replacement program in the 2020-2022 period, PacifiCorp has not included any covered conductor maintenance in its budget projections.

PacifiCorp forecasts up to 639 line-miles of distribution pole replacements or reinforcement in 2020-2022, with an expected budget expenditure of $5.38 million. It expects to replace or reinforce up to 510 line-miles of transmission at approximately $24,500 per line-mile or a total $24.48 million. It reported no such activities in 2019.

Automated equipment installation is expected to increase from 10 in 2019 to an additional 58 in the 2020-22 period, although with a diminishing rate of installations in the period. Expected costs vary greatly per installation location, it appears, but a total budget of $5.36 million is projected in the period.

The replacement of small sized copper conductor appears to target 3 miles in 2020, at a line-mile cost of $166,000, while the 2011 program involves 26 miles at about $52,000 per line-mile. In all, 42 miles of replacement in the three-year period would total $2.82 million.

Deficiencies and Conditions - Grid design and system hardening

As noted by the Public Advocates Office, PacifiCorp does not appear to be targeting its initiatives on sections of circuits that are most at-risk. While ignitions are few and there have been no PSPS events in its territory, PacifiCorp needs to demonstrate that it is using its limited resources in ways to effectively prevent future events, including by assessing grid sectionalization efforts.

PacifiCorp cautioned against comparing its 2019 WMP programs because it had only included total program units and costs. To do so would be "confusing and not helpful in understanding progress or the company's overall programs," PacifiCorp stated.

While PacifiCorp attempted to identify specific wildfire risk targets by these proposed investments (*e.g.,* Contact from object), it provides no risk reduction or RSE estimates for any of its grid hardening activities, making it very difficult to assess their effectiveness in reducing risks or relative efficient use of resources.

Deficiencies related to targeting grid design and hardening initiatives towards areas of highest risk are not unique to PacifiCorp. As such, this deficiency and associated condition is addressed in the Guidance Resolution, WSD-002.

Deficiency (*PC-3, Class B*): *PacifiCorp did not explain how it would track effectiveness of its covered conductor initiative.*

Although PacifiCorp allocates the largest portion of its planned spending on covered conductor, PacifiCorp does not discuss a method for tracking the effectiveness of its planned covered conductor installations.

Condition (PC-3, Class B): In a first quarterly report, PacifiCorp shall:

i) present and explain a methodology for tracking and measuring the effectiveness of its covered conductor installations at reducing the frequency and probability of:

   a. outages for top 10 outage causes based on best available historical data, and

   b. ignitions for all CPUC reportable ignitions.

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.

PacifiCorp's asset management and inspection plans consist of largely standard programs as dictated by state required reliability standards and to manage routine operational risks. Beginning in 2018, PacifiCorp stated that it began implementing four additional elements to address specific wildfire risks and improve resiliency: creating a fire risk Condition Code; increasing inspection frequencies in Fire High Consequence areas; narrowing Correction time frames for Fire Risk Conditions, and; piloting new technologies to enhance visual inspections.

The increase in frequency of inspections is to comply with changes to General Order (GO) 95 and GO 165. While it projects an increase in detailed inspections of distribution lines in 2020, compared to 2019 (605 line-miles v. 473), after that the number of line miles reverts to only slightly more than the 2019 level (~480 miles). Transmission line inspections will increase, however, rising from 62 miles in 2019 to 122 miles in 2020, 236 miles in 2021 and 268 miles in 2022.

Deficiencies and Conditions - Asset Management and Inspections

Although it professes to implement new programs, pilot new technologies and translate lessons learned into its long-term plans, PacifiCorp's WMP projects little or no planned program evolution for the majority of its asset management efforts.

Deficiency (*PC-4, Class B*): *PacifiCorp's WMP lacks a QA/QC program for inspections.*

PacifiCorp does not have a specific asset management and inspections program for wildfire risk mitigation that is focused on quality assurance/quality control of inspections.

PacifiCorp's WMP lacks detailed budget projections for many of these elements of asset management, and figures that it does provide for inspections are generally steady-state, or in some cases less than what was expended in 2019. Such projections indicate a business-as-usual compliance-oriented approach to wildfire mitigations, not a heightened sense of urgency in the face of admittedly increasing wildfire risks.

Condition (PC-4, Class B): In its first quarterly report, PacifiCorp shall provide details in specific asset management and inspection quality control, including providing planned spend information for these initiatives.

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).

Beginning in 2019, PacifiCorp conducted annual vegetation inspections along all lines in the High Fire Threat Districts of its territory. The utility increased line clearance distances in the HFTD, and expanded annual pole clearing on equipment in the HFTD. It says it is evaluating electronic and GIS-based tracking of vegetation management activities.

However, it is unclear how these activities advance PacifiCorp beyond increasingly stringent standards imposed by the CPUC in GO 95 for line clearances and inspections. At this time, PacifiCorp does not have any discretionary programs for inspections of vegetation around distribution or transmission lines or equipment. It is currently piloting use of LiDAR technology for enhanced inspections. PacifiCorp, however, does not project how effective these pilots are expected to be.

PacifiCorp also does not have a wildfire mitigation program focused on recruiting/training vegetation management personnel. PacifiCorp's WMP lacked detail regarding vegetation management workforce resources and constraints, and

solutions to constraints if felt. This is important in order to gauge the feasibility of PacifiCorp's plan.

One area in which PacifiCorp appears to be going beyond compliance is in expanding its pole clearing to include some 2,768 "local responsibility area" poles located in the HFTD. This is in addition to 12,292 "state responsibility area" subject poles. As with asset management, PacifiCorp provide forward budgeting information for few of its vegetation management efforts (notably: inspections, and clearance work), and those budgets show little if any increases in annual spending over 2019 levels.

Deficiencies and Conditions - Vegetation management and inspections

In the few instances where PacifiCorp projects its mitigation spending, such as for inspections and vegetation management, it shows an essentially steady-state activity projection and spending plan for each of the years from 2020-2022.[16] Such projections indicate a business-as-usual compliance-oriented approach to wildfire mitigations, not a heightened sense of urgency in the face of admittedly increasing wildfire risks. PacifiCorp could put more priority into piloting new programs and be forward-thinking on improvements to be made in the future. For example, PacifiCorp did not provide sufficient detail on the 2018 pilot programs, the process under which PacifiCorp analyzed the pilots, and the extent to which each will be utilized moving forward.

Deficiencies related to pilot programs and vegetation management are not unique to PacifiCorp. As such, these deficiency and associated conditions are addressed in the Guidance Resolution, WSD-002.

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[17] 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.

[16] WMP Revised Table 25 Vegetation management & Inspections.

[17] 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.

PacifiCorp's grid operation plans and operating protocols consist of automatic recloser operations, procedures and training for conditions of elevated risk, and on-call ignition prevention and suppression resources. It does not include activities related to PSPS or re-energization as part of Grid Operations. There are essentially no projected increases in program activity or budget for any of these areas, compared to 2019. There is also no specifically planned evolution of Grid Operations in the near term, and only vague indications that the utility will incorporate lessons learned or advanced features over the coming decade.

PacifiCorp offers no forward-looking strategy beyond programs that meet increased compliance requirements.

Deficiencies and Conditions - Grid operations and operating protocols

Deficiency (*PC-5*, Class C): *PacifiCorp's WMP does not report sufficient information on the risk reduction outcomes of its automatic recloser program.*

PacifiCorp prioritizes its automatic recloser program. PacifiCorp claims that its automatic reclosers do not emit sparks or pose an ignition risk. PacifiCorp states that it adjusted settings for reclosers and conducted line testing to assess faults before reclosing and that it will continue to investigate if amended recloser settings and conducting line testing after lockout appropriately addresses faults.

Condition (PC-5, Class C): In its 2021 annual WMP update, PacifiCorp shall:

i) describe whether recloser setting adjustments and the detection and alleviation of faults reduce ignition risk along PacifiCorp's grid; and

ii) report on its assessments, including all supporting data and results.

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.

PacifiCorp's data governance plans consist of a very basic data system consisting of outage, circuit topology, and weather data. PacifiCorp says it is focused on gathering reliable and accurate data. Its existing effort appears to be responsive to the Commission's 2019 decision for SMJU Fire Incident Collection Reporting.

While PacifiCorp describes prioritizing data that drives PSPS decisions, it did not show any evidence of how algorithms inform such decisions. This is no particular focus on near miss analysis beyond tracking faults and outages. PacifiCorp

describes engaging in collaborative research to focus on "filling in gaps" in technical areas, providing broad support to research conducted by other utilities close to its service areas and affiliated utilities.

Deficiencies and Conditions - Data governance

Deficiency (*PC-6, Class B*): *PacifiCorp does not have a specific data governance wildfire mitigation program.*

PacifiCorp has no centralized repository for data that maps to tracking key aspects of the WMP, nor does it engage in collaborative research on utility ignitions. The WMP offers no data on expenditures for these data governance activities. PacifiCorp is not showing ambition in the development of its data governance activities as a mitigation tool. Initiatives do not include new technologies, or risk-based prioritization.

Condition (PC-6, Class B): In its first quarterly report, PacifiCorp shall:

i) list and describe its data collection and governance policies, and

ii) describe how it plans to track key aspects of WMP data.

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 a risk spend efficiency analysis for each aspect of the plan.

As a result of an agreement reached among the smaller utilities and the Commission's Safety & Enforcement Division (approved in D.19--04--020), PacifiCorp has not yet developed a risk assessment methodology and modeling capabilities that are consistent with what the larger electrical corporations have developed for the Risk Assessment and Mitigation Phase (RAMP) of their General Rate Cases GRCs). In particular, PacifiCorp has not developed a methodology for calculating an RSE that can be used to help in its resource allocation decisions, as it chooses among potentially effective wildfire prevention and mitigation initiatives. While PacifiCorp says it is fully committed to the continued development and improvement of the company's risk based decision making framework, many of the elements requested in this 2020 WMP filing may not be applicable to PacifiCorp, specifically many of the components requested in this section. These elements are marked "does not apply" or "not applicable" throughout the company's filing. Therefore, its 2020 WMP lacks many of the data inputs needed by the WSD to fully assess those asset management and resource allocation proposals.

In its WMP, PacifiCorp projects that it will be able to identify key functional attributes of risk-modelling software in the immediate future (prior to 2020 fire season), and develop an implementation plan by the next WMP cycle, with such software in use to improve its risk portfolio in three years.

Deficiencies and Conditions - Resource allocation methodology

The agreement in D.19-04-020 was reached well before SB 901 went into effect, and while its intent was to reduce the regulatory burden on resource constrained utilities in their GRCs, the continuing threat of wildfires makes it incumbent on PacifiCorp, in coordination with the Commission and other utilities, to expedite its development of these risk management tools.

Deficiencies related to resource allocation are not unique to PacifiCorp. 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.

PacifiCorp's emergency planning and preparedness plans consist of an outage restoration call-back program that does automated calls with information. It has a Joint Information System (JIS) that allows them to coordinate social media, regular media, and stakeholder information. The utility follows an identical approach to wildfire emergencies as it does for other emergency events, and its wildfire related plans integrate with its Emergency Response Plan and commission regulations in GO 166.

PacifiCorp follows utility best practice in implementing using incident command structure (ICS) and assuming responsibility for service restoration and recovery. It is implementing new training enhancements which include: (1) change from online

to in-person training at the field level, (2) staffing changes, and (3) changes that will help strengthen its ICS structure. The WSD does not impose any conditions on this portion of PacifiCorp's WMP.

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.

PacifiCorp's wildfire mitigation risk strategy outlined in section 5.1 includes improving internal and external customer and community engagement. However, PacifiCorp does not currently have a specific stakeholder cooperation and community engagement program focused on this.

PacifiCorp additionally needs to establish a means of receiving input from customers, such as surveys for all meetings or outreach events, and a formal method of incorporating such input into its procedures and WMP moving forward.

Additionally, PacifiCorp should provide any updates relating to WMP that derive from D.20-03-024, particularly relating to effectiveness of outreach and AFN coordination. Cost for this section is not tracked, as an individual community engagement program does not currently exist.

PacifiCorp provided minimal details on their cooperation with suppression agencies. Their described approach is they work with suppression agencies and coordinate with them on incidents. However, they did not describe any cooperation or engagement outside of these activities (training, joint activities, etc.). Additionally, they did not provide an explanation of how the utility expects to evolve in the timelines described (before fire season, before next annual update, within 3 years, within 10 years).

PacifiCorp listed several cooperative fuel reduction projects coordinating with various federal agencies. However, PacifiCorp does not have a specific program that coordinated these efforts and did not discuss its forward-looking approach (before fire season, before next annual update, within 3 years, within 10 years).

Deficiencies and Conditions – Stakeholder Cooperation and Community Engagement

PacifiCorp does not discuss its forward-looking approach for stakeholder cooperation and community engagement.

Deficiency (*PC-7, Class C*): *PacifiCorp's stakeholder cooperation and community engagement needs further detail.*

PacifiCorp did not describe in detail having a specific means of receiving input from customers or outline a formal method of incorporating such input into its procedures and WMP moving forward. PacifiCorp provided minimal details on their cooperation with suppression agencies, and PacifiCorp does not have a specific program to coordinate cooperative efforts with federal agencies.

Condition (PC-7, Class C): In its 2021 annual WMP update, PacifiCorp shall:

i. describe its plan for receiving input from customers, such as surveys and any formal method of incorporating such input into its procedures;

ii. provide updates relating to the WMP that derive from D.20-03-024, particularly relating to effectiveness of outreach and AFN coordination;

iii. outline in detail how PacifiCorp cooperates with suppression agencies, including how it cooperates on training, incidents, and other activities; and

iv. detail how it plans to coordinate cooperative efforts relevant to reducing wildfire risk with federal agencies.

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.[18]

[18] A detailed description of the purpose and use of the maturity model is provided the Guidance Resolution being issued concurrently with the instant Resolution.

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.

PacifiCorp's initial maturity model assessment reveals that it is in the earliest stages of its maturity growth and is focused on building foundational capabilities that are still largely focused on general safety and reliability standards, rather than being specific to wildfire risks. PacifiCorp appears to be putting most of its attention to enhancing (A.) risk assessment & mapping and (B.) situational awareness. The utility is building on perceived strengths in (I.) emergency planning and preparedness, and (J.) stakeholder cooperation & community engagement capabilities.

PacifiCorp'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.
It is apparent, however, that PacifiCorp is not projecting much growth at all in the majority of identified capabilities. As shown in Appendix C, Figure 1.3, PacifiCorp projects some incremental growth for 7 of the 10 categories between 2020 and 2023. But this projected growth is very limited; only 13 of the 52 capabilities indicate any growth between 2020 and 2023.

In addition, PacifiCorp is projecting more than marginal growth for only 3 of the total capabilities, indicating a very cautious approach to advancing maturity of its processes and protocols.

In the majority of cases, PacifiCorp is only at the very earliest stages of maturity for 32 of the 52 capabilities in 2020. Of these only 9 capabilities indicate any further maturation by 2023.

This static approach to developing wildfire mitigation tools and mitigations is especially prevalent in the categories of (C.) grid design & system hardening, (D.) asset management and inspections, and (F.) grid operations and protocols.

Limited, incremental growth is projected for (E.) vegetation management, by increasing inspection cycles. PacifiCorp sees some improvement in (G.) data governance by improving data collection and curation, but curiously it projects no improvement in use of analytics or near-miss tracking.

A similar disparity occurs for (I.) emergency planning, in which PacifiCorp claims to have high level of maturity for its protocols to learn from wildfire events, but no process at all (and no advancement) for continuous improvement after wildfire and/or PSPS events.

Still, emergency planning is the sole category where PacifiCorp has noted a strong level of assessment in 2020 or ambition to reach the highest level in four of the five capabilities by 2023.

Also on the positive side, PacifiCorp intends to show advancement in four of the five capabilities associated with (A.) risk assessment & mapping by 2023, with some growth for climate scenario modelling, ignition risk estimation, estimation of wildfire and PSPS impacts, and use of risk mapping simulation algorithms.

Situational awareness capabilities will be enhanced with some improvements to weather data collection and wildfire detection processes and capabilities.

The development of these capabilities and the clear presentation of resulting data is critical for the WSD, the Commission and stakeholders understanding and efficient assessment of PacifiCorp's wildfire mitigation programs.

8. IMPACT OF COVID-19 PANDEMIC

After PacifiCorp 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).[19]

[19] Executive Order N-30-20. Available at http://covid19.ca.gov/img/Executive-Order-N-30-20.pdf.

As articulated in the March 27, 2020 joint letters[20] 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 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

- PacifiCorp'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.
- PacifiCorp'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.

[20] 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.

The following stakeholders served timely comments on the WMP Draft Resolution for PacifiCorp WSD-008: Green Power Institute (GPI). No changes were made to Resolution WSD-008.

FINDINGS

1. AB 1054 and Commission Resolution WSD-001 require PacifiCorp 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. PacifiCorp's WMP contains all the elements required by AB 1054, Pub. Util. Code § 8386(c).
5. PacifiCorp has satisfied the requirements of Pub. Util. Code § 8386(c) and the WMP Guidelines.
6. Appendix A contains findings regarding deficiencies in PacifiCorp's WMP.

THEREFORE, IT IS ORDERED THAT:

1. Ratification of the Division's approval of PacifiCorp's Wildfire Mitigation Plan is subject to conditions set forth in Appendix A.
2. The Wildfire Safety Division's approval of PacifiCorp's 2020 Wildfire Mitigation Plan, conditioned upon PacifiCorp's compliance with the conditions listed in Appendix A, is hereby ratified.
3. PacifiCorp 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. PacifiCorp 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 PacifiCorp's Wildfire Mitigation Plan mitigation efforts.
6. PacifiCorp 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. PacifiCorp 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 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
CLIFFORD RECHTSCHAFFEN
GENEVIEVE SHIROMA
Commissioners