

RIVERSIDE PUBLIC UTILITIES

Board Memorandum

BOARD OF PUBLIC UTILITIES

DATE: SEPTEMBER 27, 2021

SUBJECT: RIVERSIDE PUBLIC UTILITIES WILDFIRE MITIGATION PLAN, VERSION 2
UPDATE IN ACCORDANCE WITH CALIFORNIA PUBLIC UTILITIES CODE
SECTION 8387 FOR SUBMITTAL TO THE WILDFIRE SAFETY ADVISORY
BOARD

ISSUE:

Consider approval of the Riverside Public Utilities Wildfire Mitigation Plan, Version 2 Update in accordance with California Public Utilities Code Section 8387 for submittal to the Wildfire Safety Advisory Board.

RECOMMENDATION:

That the Board of Public Utilities recommend that the City Council approve the 2021 Riverside Public Utilities Wildfire Mitigation Plan, Version 2 update in accordance with California Public Utilities Code Section 8387 for submittal to the Wildfire Safety Advisory Board.

BACKGROUND:

The Riverside Public Utilities (RPU) Wildfire Mitigation Plan (WMP) is prepared to meet the standards set forth in Section 8387 of the Public Utilities Code. Senate Bill (SB) 901 amended Section 8387 of the Public Utilities Code when it passed in September 2018. The new code section tasked all private and publicly owned utilities and corporations, among other actions, to construct, maintain, and operate their electrical system in a manner that minimizes the risk of wildfire. To ensure that each utility addressed the risk of their electric systems causing a wildfire, several requirements were put in place and are summarized here:

1. All utilities, public and private, are required to prepare a WMP and update the plan annually.
2. A prescriptive list of required elements for the WMP is identified and must be addressed by each utility.
3. The utility must have their WMP reviewed and assessed for comprehensiveness by an independent evaluator with experience in assessing the safe operation of electrical infrastructure.
4. Both the WMP and the report issued by the independent evaluator must be presented at a public meeting of the utility's governing board.
5. The WMP and the independent evaluator report must be posted on the utility's website.

On July 12, 2019, Assembly Bills (AB) 1054 and AB 111 were passed. Neither bill changed the required content of the WMP established by SB 901, but they did change procedure. AB 111 required state agencies to form a new Wildfire Safety Division and establish a Wildfire Safety Advisory Board (Wildfire Board) in 2020. Per the legislation, the new Division and the Wildfire Board were initially housed within the California Public Utilities Commission and then, on July 1, 2021, were transferred to the California Natural Resources Agency under a newly created Office of Energy Infrastructure Safety.

AB 1054 added, among other actions, the requirement that publicly owned utilities' WMPs be submitted to the Wildfire Board by July 1st of each year for review. The Wildfire Board, after receiving submitted WMPs from all utilities, must review the documents and provide comments to the utilities regarding the WMPs conformance with legislative requirements. Each year, the Wildfire Board will then provide comments back to the public utilities.

Finally, in October 2019, SB 560 was signed into law and became effective on January 1, 2020. The bill changed Public Utilities Code Section 8387(b)(2)(G) modifying requirements for customer notification protocols for emergency de-energization. In the event of a utility de-energizing a portion of their grid infrastructure for the purpose of preventing the equipment from potentially causing wildfire, the utility is required to notify all public safety offices, critical first responders, health care facilities, and operators of telecommunications infrastructure that have facilities within the footprint of the potential de-energization event.

Wildfire Board Advisory December 2020 Advisory Opinion

In accordance with the requirements of these various bills and effective in 2019, RPU prepared and presented its first WMP to the City Council, where it was adopted on December 17, 2019. RPU submitted the WMP to the Wildfire Board on May 6, 2020.

In December 2020, the Wildfire Board completed their review of electric public utilities' initial WMPs and issued an advisory opinion. The single advisory opinion applied to all publicly owned utilities and identified several themes that they were all requested to address. The advisory opinion offered recommendations intended to help publicly owned utilities fully comply with the statutory requirements to the satisfaction of the Wildfire Board. Public utilities were not required to incorporate the recommendations of the advisory opinion in their WMPs but were instead asked to respond to a matrix of questions to be submitted to the Wildfire Board at the same times as the plan. The matrix was not required to be presented to the public utilities governing board.

Board of Public Utilities Recommendation June 14, 2021

RPU's updated 2021 WMP was due to the Wildfire Board on July 1, 2021. At the Board of Public Utilities (Board) meeting of June 14, 2021, the Board, after discussion, unanimously recommended that the City Council approve the 2021 RPU WMP annual update for submittal to the Wildfire Board by July 1, 2021 pursuant the requirements set forth in California Public Utilities Code Section 8387.

DISCUSSION:

Prior to the 2021 RPU WMP being presented to the City Council for consideration in June of this year, staff identified updates to the WMP that would allow RPU to better respond to the Wildfire Board's December 9, 2020 Advisory Opinion and that had not been incorporated in the WMP

presented for the RPU Board's consideration on June 14, 2021. As such, staff opted to remove the item from the City Council's consideration.

In order to respond to the Advisory Opinion of the Wildfire Board, staff prepared a comprehensive update to the 2021 RPU WPM and titled it Version 2. Because the update to the WPM is substantial and comprehensive, staff is seeking the Board's approval of the updated version of the WPM.

Overview of the Wildfire Mitigation Plan

The purpose and content of RPU's WPM is identified in California Public Utilities Code Section 8287, as noted above. As such, the WPM is a compliance document. RPU is provided latitude in how it responds and addresses the required contents, but the focus of the plan is very specific and directs electric utilities to describe the actions they are taking reduce the risk of their electric equipment causing a wildfire. The WPM needs to be specific and only address the required contents to assist the State Wildfire Board and members of the public that are reviewing the report specifically for compliance with State code and intent.

While there are many detailed sections that must be included in the WPM, there are essentially 6 key components:

1. Identification of the High Fire Threat Districts (HFTD) in RPU Service Territory
2. Identification of RPU electric infrastructure located within the HFTD
3. Assessment of fire risk posed by electric infrastructure in HFTD, including assessment of environmental conditions such as high wind events or high heat events that may exacerbate fire risk
4. Preventative strategies that RPU is taking to reduce fire risk by electric infrastructure in HFTD
5. Customer support and communications if de-energization is utilized as a wildfire risk preventative strategy
6. Identification of the metrics and processes that RPU will take to evaluate the effectiveness of the preventative strategies

RPU does address other impacts of wildfire, including the impact of wildfire on its local power generation and distribution system. However, these assessments and protocols are handled in the various and appropriate other hazard management plans and through internal operating procedures. RPU coordinates closely with the City emergency response teams including both the Fire and Police Departments and, as a result, how RPU responds to these situations is incorporated into citywide plans, such as the City's Hazard Mitigation Plan.

RPU also has plans and protocols in place to mitigate other risks associated with regional wildfires that may affect regional electricity transmission or generation facilities. These impacts are often coordinated with the California Independent System Operator (CAISO) and with other utilities since they impact regional electric grids and not just RPU.

Because the WPM is a compliance document, it is not appropriate to include wildfire impacts on RPU infrastructure in the plan. These impacts and RPU's responses to them should be addressed in the City's and RPU's hazard mitigation and planning efforts.

Summary of RPU Actions in 2020

Safety is always of utmost importance to RPU. In 2020, RPU infrastructure did not cause any wildfires. However, RPU did implement several preventative strategies to improve the systems safety in HFTD as well as the rest of the City. Preventative strategies have primarily focused on improvements in situational awareness and operational practices. Several grid management enhancements have been implemented:

1. Electric Operations is updating older substation automation systems to migrate to a new real time automation controller infrastructure.
2. Three new weather stations have been installed at Harvey Lynn, Springs, and RERC Substations. The data from these newly installed weather stations is used to provide real-time weather information to the system operators. Soon, staff will be able to use data such as temperature, wind speed, and relative humidity to block circuit breakers from reclosing on various feeders at our substations (which is a key fire risk mitigation strategy).
3. Three cameras were installed at Box Springs Mountain Radio Site and City Hall for added visibility. The cameras provide dispatchers with real-time video of the greater Riverside area, paying special attention to wildfire prone regions.
4. Electric Operations created a video network, so these video streams can be integrated with the Land-Mobile Radio dispatch consoles in the Grid Control Center located at the Utilities Operation Center.
5. RPU continues collaboration and partnership with Riverside Fire Department before, during, and after all wildfire events. This includes completing several river bottom inspections and extensive mitigation efforts in the area like clearing of overgrown vegetation near electric distribution facilities.

Data analytics is also an important preventative strategy as it will help RPU identify equipment or situations that represent a higher risk of electrical equipment causing a wildfire. With the information, RPU can then determine if preventative strategies should be implemented. Power outage data is reviewed regularly. RPU is working on refining this data to ensure that it clearly identifies if the outage occurred on equipment in the HFTD. While this refinement to the data tracking is not yet completed, it is a strategy that is anticipated to be completed during the current fiscal year. For 2020, system-wide metrics are reported and are not reflective outage incidents associated only in HFTDs.

RPU WMP Metrics (System-wide) from Calendar Year 2020

| Risk Factor | Metric |
|-------------------------------------|--|
| Equipment Failure | <ul style="list-style-type: none"> • Number of wire down events caused by conductor failure: 4 • Number of pole failures: 191 • Number of transformer failures: 98 |
| Conventional Fuse Operations | <ul style="list-style-type: none"> • Number of conventional transformer fuse operation events: 1 • Number of conventional lateral fuse operation events: 18 |
| Wire Contact with Foreign Object(s) | <ul style="list-style-type: none"> • Number of outage events caused by wire contact with an animal: 16 • Number of outage events caused by wire contact with mylar balloons: 27 • Number of pole failures caused by vehicle contact: 27 |

| Risk Factor | Metric |
|------------------------------|--|
| Wire Contact with Vegetation | <ul style="list-style-type: none"> Number of outage events caused by wire contact with vegetation (system-wide): 49 (Contact with a tree: 29; Contact with a palm frond: 20) |
| Inspection and Maintenance | <ul style="list-style-type: none"> 49% of circuit patrols were completed on time (COVID-19 staffing restrictions impacted inspection schedules) |
| Operations | <ul style="list-style-type: none"> Number of outages on circuits: 640 Number of outages on circuits during RFW days: Tracking being developed |
| Extreme Weather Conditions | <ul style="list-style-type: none"> Number of Red Flag Warning days: 7 Number of times automatic reclosing was defeated: Tracking being developed Number of outages during Wind or High Wind Event: 74 Number of outages during High Heat event: 93 |
| Fire History Events | <ul style="list-style-type: none"> Number of events with fire reference (e.g. pole fire, equipment fire): Tracking being developed Number of wildfires caused by RPU electrical equipment: 0 |

Addressing the Wildfire Safety Board Advisory Opinion Recommendations

As noted above, the State established prescriptive requirements for the content of the WMP and requires each utility to continuously improve its grid and processes to implement applicable best practices to minimize risk of utility infrastructure caused wildfire. The advisory opinions of the Wildfire Board are intended to help utilities incorporate, where appropriate and applicable, best practices to continuously improve its electrical grid infrastructure. As noted above, staff identified in late June that there was information identified in the Wildfire Board's advisory opinion that would improve RPU's WMP. Therefore, staff determined that a comprehensive update of the 2021 RPU WMP would be beneficial to specifically address the Wildfire Board's recommendations.

As noted, public utilities can also submit a summary matrix to the Wildfire Board that responds to the specific recommendations included in the December 9, 2020 advisory opinion. The summary matrix includes a series of questions utilities that address the advisory opinion recommendations. It was developed by a team at the California Municipal Utilities Association, public utility representatives, and staff at the CPUC's Wildfire Safety Division and CalFire. The response matrix does not require approval of the public utilities governing board for submittal but is attached to this report for reference.

Independent Evaluator

Additionally, staff would like to note that RPU has not received a final report and findings from an Independent Evaluator (IE) as required. In late 2019, RPU retained the services of an IE to complete a review of the 2019 RPU WMP. The Wildfire Board had not issued its guidance or requirements for the IE reviews as of that time. As such, RPU's IE only completed a preliminary review and recommendations that were provided to staff. The contract scope and budget, however, were insufficient for the IE to issue a final report. Staff was also unable to issue a

request for bid during most of 2020 and a portion of 2021 due to COVID-19 and purchasing restrictions.

RPU will retain an independent evaluator to review the 2021 WMP after it is submitted to the Wildfire Board. The IE's final report and any changes to the WMP recommended by the IE will be included in RPU's 2022 WMP submission.

Submission Deadline

This 2021 RPU WMP was required to be submitted to the Wildfire Board by July 1, 2020. The report submission will be late. There is no financial penalty for submitting a late report; however, the Wildfire Board will be issuing advisory opinions specific to each public utility after its review of the WMPs this year. RPU's late submission is anticipated to be noted in the advisory opinion.

STRATEGIC PLAN ALIGNMENT:

This item contributes to Strategic Priorities No. 4 Environmental Stewardship and No. 6 Infrastructure, Mobility and Connectivity and the following goals:

1. **Goal 4.3** – Implement local and support regional proactive policies and inclusive decision-making processes to deliver environmental justice and ensure that all residents breathe healthy and clean air with the goal of having zero days of unhealthy air quality per the South Coast Air Quality District's Air Quality Index (AQI).
2. **Goal 4.6** – Implement the requisite measures to achieve citywide carbon neutrality no later than 2040.
3. **Goal 6.2** – Maintain, protect, and improve assets and infrastructure within the City's built environment to ensure and enhance reliability, resiliency, sustainability, and facilitate connectivity.

This item aligns with EACH of the five Cross-Cutting Threads as follows:

1. **Community Trust** – This item addresses strategies to prevent wildfire caused by RPU electrical equipment and articulates a clear communications strategy for our customers in a de-energization event ensuring public safety for the greater public good.
2. **Equity** – This item is utility wide and identifies measures and strategies to protect the safety and wellbeing of all customers of RPU and many areas of the region.
3. **Fiscal Responsibility** – This item represents fiscal responsibility by establishing strategies to minimize potential wildfires and the associated financial impacts that RPU and the City could incur.
4. **Innovation** – This item identifies new technology and deployment of a new infrastructure that helps RPU mitigate the risks of its electrical equipment causing a wildfire.
5. **Sustainability & Resiliency** – Wildfires are a major source of greenhouse gas emissions that contribute to climate change as well as a source of emissions that negatively impact local air quality. This item reduces the potential that a wildfire will occur due to RPU's

electrical equipment and thus reduces the potential release of greenhouse gas emissions and pollutants that negatively affect air quality.

FISCAL IMPACT:

There is no fiscal impact associated with this item.

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Approved by: Todd M. Corbin, Utilities General Manager

Approved by: Al Zelinka, FAICP, City Manager

Approved as to form: Phaedra A. Norton, City Attorney

Certifies availability of funds: Edward Enriquez, Chief Financial Officer/City Treasurer

Attachments:

1. 2021 RPU Wildfire Mitigation Plan - Version 2
2. Wildfire Safety Board Advisory Opinion Response Matrix
3. Presentation