

July 22, 2021

13315

Mr. Robert DeLoach
Colton Electric Utility
150 S 10th St
Colton, CA 92324

Dear Mr. DeLoach,

Subject: Independent Evaluation Report of the Colton Electric Utility's 2021 Wildfire Mitigation Plan**I. INTRODUCTION**

The Colton Electric Utility (CEU) contracted with Dudek to engage in an independent evaluation of its Wildfire Mitigation Plan (WMP). This independent evaluation report (Report) describes the technical review and evaluation of the WMP prepared by Dudek, performed between April 2021 and July 2021.

Dudek conducted an evaluation of CEU's WMP, as required under California Public Utilities Code (PUC) §8387(b). PUC §8387(b), as modified by Senate Bill (SB) 901, and the Administrative Law Judge's Ruling issued on January 17, 2019 in California Public Utilities Commission (CPUC) Docket No. R.18-10-007 (ALJ Ruling), applies to local publicly owned electric utilities and required preparation of a WMP before January 1, 2020, and revising/updating the WMP in 2020 and annually thereafter.

The WMP requirements are codified in PUC §8387 for local publicly owned electric utilities (POUs). PUC §8387(c) requires that an independent evaluator review and assess the comprehensiveness of a POU's WMP and issue a summary report.

Dudek conducted an initial review of CEU's WMP and provided recommendations for clarifications/modifications. The focus of the evaluation was to determine whether the WMP included all elements required under PUC §8387(b)(2) (listed in Attachment A). The following summarizes the deficiencies identified during the initial review, by required element. Required elements not identified below were determined to satisfactorily meet code requirements in the WMP.

- 8387(b)(2)(A): An accounting of the responsibilities of persons responsible for executing the plan.
- 8387(b)(2)(B): The objectives of the wildfire mitigation plan.
- 8387(b)(2)(C): A description of the preventive strategies and programs to be adopted by the local publicly owned electric utility or electrical cooperative to minimize the risk of its electrical lines and equipment causing catastrophic wildfires, including consideration of dynamic climate change risks.
- 8387(b)(2)(D): A description of the metrics the local publicly owned electric utility or electrical cooperative plans to use to evaluate the wildfire mitigation plan's performance and the assumptions that underlie the use of those metrics.
- 8387(b)(2)(E): A discussion of how the application of previously identified metrics to previous wildfire mitigation plan performances has informed the wildfire mitigation plan.

- 8387(b)(2)(F): Protocols for disabling reclosers and deenergizing portions of the electrical distribution system that consider the associated impacts on public safety, as well as protocols related to mitigating the public safety impacts of those protocols, including impacts on critical first responders and on health and communication infrastructure.
- 8387(b)(2)(G): Appropriate and feasible procedures for notifying a customer who may be impacted by the deenergizing of electrical lines. The procedures shall direct notification to all public safety offices, critical first responders, health care facilities, and operators of telecommunications infrastructure with premises within the footprint of potential de-energization for a given event.
- 8387(b)(2)(J): A list that identifies, describes, and prioritizes all wildfire risks, and drivers for those risks, throughout the local publicly owned electric utility's or electrical cooperative's service territory. The list shall include, but not be limited to, both of the following: (i) Risks and risk drivers associated with design, construction, operation, and maintenance of the local publicly owned electric utility's or electrical cooperative's equipment and facilities. (ii) Particular risks and risk drivers associated with topographic and climatological risk factors throughout the different parts of the local publicly owned electric utility's or electrical cooperative's service territory.
- 8387(b)(2)(L): A methodology for identifying and presenting enterprise-wide safety risk and wildfire-related risk.
- 8387(b)(2)(M): A statement of how the local publicly owned electric utility or electrical cooperative will restore service after a wildfire.
- 8387(b)(2)(N): A description of the processes and procedures the local publicly owned electric utility or electrical cooperative shall use to do all of the following: (i) Monitor and audit the implementation of the wildfire mitigation plan. (ii) Identify any deficiencies in the wildfire mitigation plan or its implementation and correct those deficiencies. (iii) Monitor and audit the effectiveness of electrical line and equipment inspections, including inspections performed by contractors, that are carried out under the plan, other applicable statutes, or commission rules.

Following updates to all the above, the WMP was found to meet all the requirements of PUC §8387(b)(2). In addition, Dudek evaluated the WMP for compliance with the Wildfire Safety Advisory Board (WSAB) December 15, 2020 Guidance Advisory Opinion and made recommendations to the Colton Electric Utility for updating the WMP to include the WSABs recommendations, even though the Guidance document recommendations are not requirements.

II. WILDFIRE MITIGATION PLAN REQUIREMENTS

A. Senate Bill 901

Per SB 901, all Publicly Owned Utilities (POUs) are required to adopt a Wildfire Mitigation Plan (WMP), which shall be reviewed by an independent third-party evaluator. SB 901 requires the governing board to determine whether any portion of the geographical area where the utility's overhead electrical lines and equipment are located has a significant risk of catastrophic wildfire resulting from those electrical lines and equipment. The bill directs electrical utilities to annually prepare WMPs that include several mitigation and response elements in each utility's strategies, protocols, and programs. Each electric utility is to prepare and adopt a comprehensive WMP before January 1, 2020. The requirements for POUs are presented in PUC §8387. In addition, the WMP shall be reviewed by an approved, independent, third-party evaluator to review and assess the comprehensiveness of, and the POU's compliance with, this Plan.

B. AB 1054 & AB 111

Per AB 1054, POUs must annually submit a WMP to the California Wildfire Safety Advisory Board, which will review the WMP and provide recommendations on mitigating wildfire risk. AB 1054 contains similar WMP requirements to SB 901 but allows WMPs of a three-year, rather than one-year duration.

AB 111 establishes the Office of Energy Infrastructure Safety within the Natural Resources Agency after July 1, 2021.

C. The Colton Electric Utility WMP Requirements

California Public Utilities Code (PUC) §8387(b)(2) lists the statutory requirements for WMPs. These are the specific elements that the independent evaluator must review to make its determination for this report. The specific elements that must be addressed in CEU's WMP are included in Attachment A and are summarized here for reference.

- The responsibilities of persons responsible for executing the plan.
- The objectives of the wildfire mitigation plan.
- The preventive strategies and programs to be adopted to minimize the risk of its electrical lines and equipment causing catastrophic wildfires.
- The metrics to use to evaluate the wildfire mitigation plan's performance.
- How the application of previously identified metrics has informed the wildfire mitigation plan.
- Protocols for disabling reclosers and deenergizing portions of the electrical distribution system that consider the associated impacts to public safety.
- Procedures for notifying a customer who may be impacted by the deenergizing of electrical lines.
- Plans for vegetation management.
- Plans for inspections of the electrical infrastructure.
- Description of all wildfire risks, and drivers for those risks, throughout the service territory, including design, construction, operation, and maintenance of equipment and facilities, and topographic and climatological risk factors.
- Identification of any geographic area in the service territory that is a higher wildfire threat than is identified in a commission fire threat map.
- Identification of enterprise-wide safety risk and wildfire-related risks.
- How the service will be restored after a wildfire.
- The processes and procedures used to monitor and audit the implementation of the wildfire mitigation plan, identify any deficiencies, and the effectiveness of electrical line and equipment inspections.

III. DESCRIPTION OF THE COLTON ELECTRIC UTILITY

The City of Colton located on the southern edge of the San Bernardino metropolitan area, is in a region of the state with a mix of wildfire risk classes. The flat and urbanized areas in the north half of the City are not located in a High or Very High Fire Hazard Severity Zone. Only the southern half of the City contains terrain and vegetation that would support a large wildfire and is classified as a Very High Fire Hazard Severity Zone. The CPUC Fire Threat Map designates the portions of the south half of the City as Tier 2-Elevated Risk & Tier 3-Extreme Risk; specifically, the La Loma Hills are designated Tier 2, and the San Jacinto Mountains contain Tier 2 areas on the lower slopes and Tier 3 areas on the upper slopes, ridgelines, and in canyons. Only the portions of the City in the CPUC Tier 2 or Tier 3 areas are subject to General Order, Rule 18a.

The CEU has approximately 78 miles of overhead power lines throughout the City. Approximately 10 miles of this is located within an area designated as a Tier 2 or Tier 3 Fire Threat area. These wires are mainly transmission wires that supply electricity to a developed area and are located along major roadways. Distribution wires that serve the businesses and homes in the high fire threat areas are located underground and only approximately two miles of CEU overhead lines traverse a large undeveloped area. Southern California Edison (SCE) has several overhead transmission lines that traverse CEU territory. There are no substations or other electrical facilities in a high fire threat area in CEU territory.

The CEU is aware of the areas within in its territory that are at a higher risk for a destructive wildfire and the role that electrical system failures in igniting new wildfires. The CEU has taken actions to help prevent and respond to the increasing risk of devastating wildfires by making improvements to their operation and maintenance practices that reduce safety risks associated with its electric system.

IV. INDEPENDENT EVALUATION

A. Independent Evaluator Requirement

PUC §8387 requires each POU to “contract with a qualified independent evaluator with experience in assessing the safe operation of electrical infrastructure to review and assess the comprehensiveness of its wildfire mitigation plan.” Additionally, the independent evaluator’s assessment of the comprehensiveness of the POU’s WMP must be issued in a report that is both posted to the POU’s website and presented at a public meeting of the POU’s governing board.

B. Dudek’s Qualifications

According to PUC §8387(c), the qualified independent evaluator that performs the assessment of CEU’s WMP must have “experience in assessing the safe operation of electrical infrastructure to review and assess the comprehensiveness of its wildfire mitigation plan.” The CEU has determined that Dudek is the independent evaluator who adequately understands the local conditions and fire risks of the service area.

C. Evaluation Methodology

Dudek evaluated the comprehensiveness of the CEU WMP using the following measures:

- Statutory Compliance: Dudek ensured that each required element specified in PUC §8387 is addressed in the CEU’s WMP.
- Industry Comparison: Dudek is familiar with existing industry practices and has reviewed the local POU WMPs previously filed with the California Public Utilities Commission (CPUC). Dudek has compared the CEU’s WMP against existing practices and any comparable actions planned by the POUs.

D. Metrics

The CEU WMP proposes the following metrics to measure performance of its wildfire mitigation measures: (1) number of fire ignitions, (2) wires down events, and (3) vegetation contacts with electrical equipment. Dudek has determined that these are appropriate metrics for a WMP and meet the minimum requirements in CPUC 8387.

Dudek will continue to monitor the metrics selected in the CPUC's current Wildfire Mitigation Plan rulemaking for utilities (per R.18-10-007) and determine if any additional metrics are applicable to POUs and should be incorporated into future CEU WMPs.

V. EVALUATION OF THE COLTON ELECTRIC UTILITY WILDFIRE MITIGATION PLAN

A. Minimizing Wildfire Risks

PUC §8387(a) requires the following: Each local publicly owned electric utility and electrical cooperative shall construct, maintain, and operate its electrical lines and equipment in a manner that will minimize the risk of wildfire posed by those electrical lines and equipment.

The WMP describes the safety-related measures that the CEU follows to reduce its risk of causing wildfires. Dudek has determined that the CEU complies with this standard with the CEU's operations and maintenance standards meeting CPUC requirements for electrical systems and the above ground electrical infrastructure that is in an area that is considered an elevated or extreme risk of electric line wildfire. Most of the aboveground equipment that is in high fire threat areas is along a major road and is not surrounded by continuous vegetation this further reduces the likelihood that an equipment failure will ignite a wildfire.

B. Evaluation of WMP Elements

Dudek found that CEU's WMP meets the statutory requirements of comprehensiveness per PUC §8387. The review of the WMP's elements is summarized relative to the application of the WMP. The table in Attachment A lists each required element for CEU's WMP and provides Dudek's assessment of the comprehensiveness of that element within the WMP.

Below is a summary of WMP elements as required by PUC §8387, including restating sections of the WMP where applicable.

(A): Responsibilities of persons responsible for executing the plan.

The CEU Assistant Director of Utility Services has overall functional management of the Electric Utility and provides oversight of the Electric Utility. The Assistant Director utilizes superintendents for division and area oversight. The Public Works and Utility Services Department Director is designated with the authority to implement, execute, and modify the Plan as necessary.

(B): Objectives of the Wildfire Mitigation Plan

The CEU has stated the goal and objectives of the WMP. The goal meets the minimum requirements for PUC 8387(a) that the CEU will construct, maintain, and operate its electrical lines and equipment in a manner that will minimize the risk of catastrophic wildfire posed by those electrical lines and equipment. The WMP describes the specific objectives that the CEU will achieve to minimize the risk that their equipment will ignite a wildfire.

(C): Prevention Strategies and Programs

The WMP describes the four wildfire prevention programs that CEU uses to mitigate wildfire risk in their electrical system. (1) Vegetation Management programs that include an inspection and abatement elements for clearance around above ground equipment as well as surface vegetation, (2) an Enhanced Inspection program for the High Fire

Threat areas that is activated during periods of extreme weather or high fire danger, (3) Situational Awareness protocols for coordinating with area first responders, regional dispatch centers, and adjacent utilities, (4) Equipment and Facility Hardening programs for the portions of the system in the high fire threat areas.

(D): Metrics and Assumptions for Measuring WMP Performance

CEU tracks three metrics to measure the performance of the WMP: (1) number of fire ignitions; (2) wires down within the service territory, and (3) vegetation contacts with electrical equipment. CEU will review mitigation plan metrics to see if they need to be revised and/or updated. These three metrics are generally acceptable metrics according to Wildfire Safety Division and will meet the minimum requirements for the plan.

(E): Impact of Previous Metrics on WMP

The WMP defines the two metrics it used in the previous version of the plan to track the effectiveness of its wildfire risk reduction efforts. The WMP describes that the metrics showed that the utility has not been the cause of any wildfires in their territory but that these two metrics alone are not effective measures of all their preventative programs.

(F): Reclosing Protocols

CEU does not currently have any distribution recloser equipment installed on electric supply circuits in the high fire threat area and thus no policy is currently needed.

(G): De-energization Notification Procedures

The CEU has the authority to shut off power to portions of their electrical system but does not consider preventative de-energizing of the system to be a valid strategy. However, the CEU imports most of its power from SCE, who does utilize de-energization as a preventative strategy. The WMP includes a description of the CEU's protocols for coordination with SCE during a de-energizing event and their processes for notifying customers.

(H): Vegetation Management

The CEU WMP describes its established tree inspection and tree trimming program that meets or exceeds the standards for line clearance under the PUC GO 95 and PRC 4292 & 4293.

(I): Inspections:

The CEU WMP describes its established pole inspection program that is in accordance with the inspection requirements provided in CPUC General Order (GO) 165 and CPUC GO 95, Rule 18.

The WMP also describes an enhanced inspection program for equipment in the high fire threat areas during extreme weather events and during periods of high fire danger.

(J)(i): Risks and Risk Drivers Associated with Design and Construction Standards

The WMP describes the risks and risk-drivers present in the CEU's electrical system including the location of equipment in the high fire threat areas with details about where the system traverses areas of continuous vegetation, the risks present with the equipment present in the high fire threat areas, and the common causes of electrical system failures.

(J)(ii): Risks and Risk Drivers Associated with Topographic and Climatological Risk Factors

The WMP describes the risks and risk-drivers present in local terrain and weather conditions in the high fire threat areas in.

(K): Geographical Area of Higher Wildfire Threat

The CEU WMP acknowledges the areas identified on the Fire Threat Map as Tier 2 and Tier 3 as the areas in their territory whose terrain places it at a higher risk of wildfire. No recommendations are made for the CPUC Fire Threat maps.

(L): Enterprise-wide Safety Risks

The WMP generally describes how the CEU regularly evaluates enterprise safety risks, which include severe operating conditions and contingencies.

(M): Restoration of Service

The WMP describes that the procedures for re-energizing the system after a shut-down are being developed with SCE.

(N)(i): Monitoring and Auditing WMP Implementation

The WMP describes the Director of Public Works and Utility Services role as well as their staff's role in ensuring that the plan and its implementation meets the State requirements for reducing the risk that the utilities equipment is responsible for igniting a wildfire.

(N)(ii): Identifying and correcting WMP deficiencies

The WMP describes that CEU staff evaluates this plan on annual basis may correct deficiencies and implement plan improvements as needed.

(N)(iii): Monitoring and Auditing the effectiveness of inspections

The WMP describes the General Orders that the CEU uses to guide its equipment inspections. The WMP describes the quality control processes the CEU uses to ensure that the inspections are accurately performed.

V. CONCLUSION

Dudek concludes that the Colton Electric Utility Wildfire Mitigation Plan addresses all the applicable statutory requirements for a Publicly Owned Utilities' WMP as specified in California Public Utilities Code Section 8387. The plan has been updated based on information obtained over the last year of implementation and recommendations made by the Independent Evaluator. Dudek finds that CEU has taken actions to minimize the risk that its lines or equipment will cause a wildfire.

Prepared by,

Jeremy Cawn

Jeremy Cawn, RPF, CWMS
Urban Forestry Specialist

Att.: Attachment A. WMP Required Element Compliance Matrix under PUC Section 8387

cc: Scott Eckardt, Dudek

Attachment A

WMP Required Element Compliance Matrix under PUC Section 8387

WMP Required Element per PUC Sec 8387(b)(2)	Location in WMP	IE's Assessment of WMP based on PUC Sec. 8387 Requirements	Responsible Party Revisions	IE's Re-Assessment of WMP
(A): An accounting of the responsibilities of persons responsible for executing the plan.	Section 1; Page 5.	Needs clarification of responsibilities. While the organizational structure, responsible department and responsible position are identified, it is not clear what the responsible position's responsibilities are for executing the WMP.	CEU - Complete. Added "and responsible for executing the WMP", Added personnel information where applicable	Meets requirements as modified.
(B): The objectives of the wildfire mitigation plan.	Section 3; Page 8	Overall goal of the WMP is stated but no specific objectives.	CEU - Complete, objectives matrix added.	Meets requirements as modified.
(C): A description of the preventive strategies and programs to be adopted by the local publicly owned electric utility or electrical cooperative to minimize the risk of its electrical lines and equipment causing catastrophic wildfires, including consideration of dynamic climate change risks.	Section 4; Page 10	The section lists five programs including a brief statement of their purpose but is lacking any program details or strategies adopted.	CEU - Complete. Prevention programs are described in detail.	Meets requirements as modified.

WMP Required Element per PUC Sec 8387(b)(2)	Location in WMP	IE's Assessment of WMP based on PUC Sec. 8387 Requirements	Responsible Party Revisions	IE's Re-Assessment of WMP
(D): A description of the metrics the local publicly owned electric utility or electrical cooperative plans to use to evaluate the wildfire mitigation plan's performance and the assumptions that underlie the use of those metrics.	Section 5; Page 12	There is a description of the two metrics CEU will use but no description of assumptions that underlie the metric.	CEU - Section revised to describe how the three metrics inform the utility of risks in the system and the effectiveness of prevention programs.	Meets requirements as modified.
(E): A discussion of how the application of previously identified metrics to previous wildfire mitigation plan performances has informed the wildfire mitigation plan.	Section 5; Page 12	Includes discussion of application of previous metrics. No reference is included regarding the impacts on the WMP from past metrics.	CEU - Complete, added description of previous metrics.	Meets requirements as modified.
(F): Protocols for disabling reclosers and deenergizing portions of the electrical distribution system that consider the associated impacts on public safety, as well as protocols related to mitigating the public safety impacts of those protocols, including impacts on critical first responders and on health and communication infrastructure.	Section 6; Page 13	Not addressed. A statement is included noting the difficulty to assess metrics, but the metrics themselves have not been identified.	CEU - Complete. Updated section to describe how CEU does not plan to use de-energization and how CEU coordinates with SCE PSPS events.	Meets requirements as modified.

WMP Required Element per PUC Sec 8387(b)(2)	Location in WMP	IE's Assessment of WMP based on PUC Sec. 8387 Requirements	Responsible Party Revisions	IE's Re-Assessment of WMP
(G): Appropriate and feasible procedures for notifying a customer who may be impacted by the deenergizing of electrical lines. The procedures shall direct notification to all public safety offices, critical first responders, health care facilities, and operators of telecommunications infrastructure with premises within the footprint of potential de-energization for a given event.	Section 6; Page 14	No reference is provided regarding procedures to notify public safety offices, first responders, health care facilities and telecommunications operators in the event of de-energization.	CEU - Updated section to describe notification processes.	Meets requirements as modified.
(H): Plans for vegetation management.	Section 7; Page 15	Meets requirements.	NA	Meets requirements.
(I): Plans for inspections of the local publicly owned electric utility's or electrical cooperative's electrical infrastructure.	Section 8; Page 15.	Meets requirements.	NA	Meets requirements.

WMP Required Element per PUC Sec 8387(b)(2)	Location in WMP	IE's Assessment of WMP based on PUC Sec. 8387 Requirements	Responsible Party Revisions	IE's Re-Assessment of WMP
<p>(J): A list that identifies, describes, and prioritizes all wildfire risks, and drivers for those risks, throughout the local publicly owned electric utility's or electrical cooperative's service territory. The list shall include, but not be limited to, both of the following: (i) Risks and risk drivers associated with design, construction, operation, and maintenance of the local publicly owned electric utility's or electrical cooperative's equipment and facilities. (ii) Particular risks and risk drivers associated with topographic and climatological risk factors throughout the different parts of the local publicly owned electric utility's or electrical cooperative's service territory.</p>	<p>Section 9; Page 16</p>	<p>Not addressed. Contains a general discussion of wildfire risks but not a discussion of the risks present in the CEU territory. Include a list of risks and risk drivers related to design, construction, operation and maintenance.</p>	<p>CEU - Complete. Updated risks section to include specific risks in CEU operations and local terrain/weather conditions</p>	<p>Meets requirements as modified.</p>
<p>(K): Identification of any geographic area in the local publicly owned electric utility's or electrical cooperative's service territory that is a higher wildfire threat than is identified in a commission fire threat map, and identification of where the commission should expand a high-fire threat district based on new information or changes to the environment.</p>	<p>Section 10; Page 17</p>	<p>Not addressed. Includes a description of the high fire threat area in CEU territory but not how this presents an increased risk of wildfire in their system.</p>	<p>CEU - Complete, updated this section to describe the specific geographic areas of our territory that would increase the risk of a destructive wildfire.</p>	<p>Meets requirements as modified.</p>

WMP Required Element per PUC Sec 8387(b)(2)	Location in WMP	IE's Assessment of WMP based on PUC Sec. 8387 Requirements	Responsible Party Revisions	IE's Re-Assessment of WMP
(L): A methodology for identifying and presenting enterprise-wide safety risk and wildfire-related risk.	Section 12; Page 18	Include a discussion of the methodology for identifying enterprise-wide safety risk and wildfire-related risk.	CEU - Added a discussion of the CEUs enterprise-wide risk management efforts.	Meets requirements as modified.
(M): A statement of how the local publicly owned electric utility or electrical cooperative will restore service after a wildfire.	Section 12; Page 18	Highlight the statement of the intention to not pre-emptively de-energize lines, but also include a statement of how service will be restored if de-energization does occur.	CEU - Moved service restoration description to correct section, added description of coordination with SCE.	Meets requirements as modified.
(N): A description of the processes and procedures the local publicly owned electric utility or electrical cooperative shall use to do all of the following: (i) Monitor and audit the implementation of the wildfire mitigation plan. (ii) Identify any deficiencies in the wildfire mitigation plan or its implementation and correct those deficiencies. (iii) Monitor and audit the effectiveness of electrical line and equipment inspections, including inspections performed by contractors, that are carried out under the plan, other applicable statutes, or commission rules.	Section 13; Page 18	The sections should be enhanced to include details on how the Plan is monitored and audited, how the monitoring will occur throughout the year, and how the deficiencies are identified. Clarification is needed whether the proposed effectiveness inspection methods are taking place, and if so, by whom.	CEU - Text added to this section to describe monitoring and auditing procedures.	Meets requirements as modified.