PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

SAFETY POLICY DIVISION

Resolution SPD-3
October 20, 2022

FILED
10/26/22
03:10 PM
A2212013

R E S O L U T I O N

RESOLUTION SPD-3. Resolution Adopting Performance Metrics and Retaining Existing Requirements for the 2023 Wildfire Mitigation Plans of Electrical Corporations Pursuant to Public Utilities Code §§ 8389(d)(1) and (2).

This resolution adopts the proposals of the Office of Energy Infrastructure Safety (Energy Safety) for performance metrics and requirements for the 2023 Wildfire Mitigation Plans (WMP) of electrical corporations. This resolution satisfies the requirements of Public Utilities Code (Pub. Util. Code) § 8389(d)(1) and (2) related to catastrophic wildfires.[1]

OUTCOME SUMMARY:

- Adopts Energy Safety's recommendation to adopt new performance metrics, amend other metrics, and retain or remove the remaining metrics adopted in Resolution WSD-011 and required by Pub. Util. Code § 8386(c), for the 2023 WMPs under Pub. Util. Code § 8389(d)(1).
- Adopts Energy Safety's recommendation to retain existing WMP requirements for the 2023 WMPs under Pub. Util. Code § 8389(d)(2).

SAFETY CONSIDERATIONS:

- Mitigation of catastrophic wildfires in California is among the most important safety challenges the Commission-regulated electrical corporations face. WMPs provide an electrical corporation's proposed actions to help prevent catastrophic wildfires, so comprehensive WMPs are essential to safety.
- Any changes to WMPs should enhance California's ability to review and monitor the electrical corporations' actions in mitigating catastrophic wildfires.

[1] All statutory references are to the Public Utilities Code unless otherwise noted.

ESTIMATED COST:

- This Resolution does not address or approve costs.
- Costs incurred to comply with WMPs are to be addressed in electrical corporation General Rate Cases or other applications, not in WMPs.

SUMMARY

This Resolution satisfies the requirements of Pub. Util. Code §§ 8389(d)(1) and (2), related to catastrophic wildfires. The statute requires the following:

> (d) By December 1, 2020, and annually thereafter, the [C]ommission, after consultation with the [Office of Energy Infrastructure Safety],[2] shall adopt and approve … the following:
>
> (1) Performance metrics for electrical corporations.
>
> (2) Additional requirements for wildfire mitigation plans.[3]

Pursuant to § 8389(d)(1), this Resolution adopts additional and amended performance metrics, along with the metrics used to evaluate the 2021 and 2022 Wildfire Mitigation Plans (WMP) as recommended by Energy Safety. Performance metrics are intended to assess utility performance and outcomes resulting from executing the WMPs.

Under § 8389(d)(2), this Resolution recommends maintaining the existing WMP requirements as defined in Pub. Util. Code § 8386(c). Energy Safety is drafting the 2023 Draft WMP Guidelines and states that while it expects the guidelines will change the level of granularity required in the WMPs, it will not add requirements because the information to be included in the plan stems from the WMP requirements defined in Pub. Util Code § 8386(c).[4]

Current performance metrics were adopted for use in the 2021 WMPs by the Commission in 2020 within Table 2 of Attachment 2.3 of Resolution WSD-011, Recent performance on outcome metrics. The Commission issued Resolution M-4860 in December 2021, continuing for 2022 the performance metrics used to evaluate the 2021 WMPs for electrical corporations (§ 8389(d)(1)) and retaining the existing WMP requirements (§ 8389(d)(2)). Energy Safety proposes to add new performance metrics, amend other metrics, and revise the existing performance metrics from 2022, as described below.

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[2] The Wildfire Safety Division (WSD) transitioned from the California Public Utilities Commission (CPUC or Commission) to the Office of Energy Infrastructure Safety (Energy Safety) at the California Natural Resources Agency (CNRA) on July 1, 2021.

[3] Sections (d)(3) and (4) relate to the processes for safety culture assessments and compliance with the WMP, which the Commission will address at an appropriate time in the future.

[4] Attachment 2, Energy Safety's Recommended Additional WMP Requirements at 4.

Energy Safety's proposals related to the §§ 8389(d)(1) and (2) requirements are contained within this Resolution in the following Attachments:

- **Attachment 1: Energy Safety's Recommended Performance Metrics**
  Energy Safety recommended changes to the performance metrics for electrical corporations that include twelve (12) new performance metrics, two (2) amendments to existing metrics and removal of two (2) existing metrics.
- **Attachment 2: Energy Safety's Review of Additional Wildfire Mitigation Plan Requirements**
  Energy Safety recommends maintaining existing requirements as defined in Pub. Util. Code § 8386(c). Energy Safety is developing guidelines that may change the granularity of the information to be included in the WMPs, but the information itself stems from the existing requirements defined in Pub. Util. Code § 8386(c).

DISCUSSION

1. Attachment 1 on Performance Metrics

1.1. Energy Safety's Recommendations on Performance Metrics

Energy Safety recommends maintaining the majority of the existing performance metrics with the exception of two (2) metrics removed and with new performance metrics highlighted in green and amended performance metrics highlighted in blue, as shown in Attachment 1 to this resolution. In preparing its recommendations, Energy Safety evaluated existing outcome metrics included in the Resolution WSD-011[5] Tables 1 and 2, along with data submitted by regulated utilities in the WMPs. Energy Safety defines performance metrics as "metrics [that] indicate the extent to which an electrical corporation's [WMP] is driving performance outcomes."[6] Energy Safety proposes twelve (12) additional metrics for categories of risk events, utility inspection findings, asset management, workforce management, and emergency preparedness. Energy Safety also proposes amendments to two (2) existing metrics in the categories of inspection findings and removal of two (2) performance metrics on injury and/or fatality resulting from

[5] Resolution WSD-011, implementing the requirements of Pub. Util. Code § 8389(d)(1), (2) and (4), related to catastrophic wildfire caused by an electrical corporation, adopted November 19, 2020, available at: https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M352/K490/352490594.PDF; Resolution WSD-11, Attachment 2.2: 2021 Wildfire Mitigation Plan Guidelines Template, Section 6, Performance metrics and underlying data, Tables 1 and 2 at 32-32, available at: https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M351/K403/351403440.pdf.

[6] Attachment 1, Energy Safety's Recommended Performance Metrics at 3.

implementing WMP initiatives. Energy Safety's recommendations are summarized below.[7]

Existing Metrics:

- 1.a. - Risk Events – Number of all events with probability of ignition, including wires down, contacts with objects, line slap, events with evidence of heat generation, and other events that cause sparking or have the potential to cause ignition.
- 1.b – Risk Events – Number of wires down
- 1.c – Risk Events – Number of outage events not caused by contact with vegetation
- 1.d – Risk Events – Number of outage events caused by contact with vegetation
- 10.a – Fatalities and Injuries due to utility-related ignitions – Fatalities due to utility-related ignitions (total)
- 10.b - Fatalities and Injuries due to utility-related ignitions – Injuries due to utility-related ignitions (total)
- 11.a – Value of assets destroyed by utility-related ignitions, listed by asset type – Value of assets destroyed by utility-related ignitions (total)
- 12.a – Structure damaged or destroyed by utility-related ignitions – Number of structures destroyed by utility-related ignitions (total)
- 12.b – Structure damaged or destroyed by utility-related ignitions – Critical infrastructure damaged /destroyed by utility-related ignitions (total)
- 13.a. – Acreage burned by utility-ignited wildfires – Number of acres burned by utility ignited wildfires
- 14.a – Number of utility-related ignitions – Number of ignitions (total) according to existing ignition data reporting requirement
- 14.b - Number of utility-related ignitions – Number of ignitions
- 18.a – Community outreach metrics - % of customers notified of evacuation in evacuation zone of a utility-ignited wildfire

[7] The detailed list of performance metrics is available in Attachment 1.

New and Amended Metrics		
Metric Number & Type	**Outcome Metric Name**	**Detailed Description**
1.e. Risk Events (new)	Number of outage events caused by fast trip/increased sensitivity to faults (new).	The number of events where power transmission was halted due to the automatic response of a sensing technology deployed to a circuit
2. Time between vegetation inspection finding and resulting trimming activities (new)	Median time 95 percentile time	This metric is intended to understand how quickly the utility responds to a vegetation finding within different areas of their service territory. The median time is intended to understand "typical" response times. The 95 percentile time is intended to understand "atypical" response times (e.g., more complex issues, peak seasons)
3. Time between level 1 asset inspection finding and resulting maintenance activity (new)	Median time 95 percentile time	This metric is intended to understand how quickly the utility responds to a level 1 finding from an asset inspection within different areas of their service territory. Level 1, 2, and 3 are in reference to GO-95 rule 18 priority levels. The median time is intended to understand "typical" response times. The 95 percentile time is intended to understand "atypical" response times (e.g., more complex issues, peak seasons)
4. Time between level 2 asset inspection finding and resulting maintenance activity (new)	Median time 95 percentile time	See discussion on level 1 findings.
5. Time between level 3 asset inspection finding and resulting maintenance activity (new)	Median time 95 percentile time	See discussion on level 1 findings.

6. Circuit mile days operated above rated current carrying capacity (new)	Circuit mile days operated above nameplate capacity - determined by multiplying, for each circuit, the circuit length in miles by the time operated above nameplate capacity in days, and summing the products across all circuits.	Operating the grid above current carrying capacity can result in permanent damage to conductors and other equipment which can increase the wildfire risk (e.g., premature failure / line down event).
7.a. Vegetation management work orders (new)	Number of vegetation open work orders issued (total)	The total number of open work orders that prescribe vegetation management activities. The focus of this metric is to understand if the utility is falling behind, catching up, or appropriately managing its vegetation management activities.
7.b. Vegetation management work orders (new)	Number of vegetation past due work orders (total)	The total number of past due work orders that prescribe vegetation management activities. The focus of this metric is to understand if the utility is falling behind, catching up, or appropriately managing its vegetation management activities.
8.a. Asset management work orders (new)	Number of asset management open work orders issued (total)	The total number of open work orders that prescribe asset management activities. The focus of this metric is to understand if the utility is falling behind, catching up, or appropriately managing its asset management activities.
8.b. Asset management work orders (new)	Number of asset management past due work orders (total)	The total number of past due work orders that prescribe asset management activities. The focus of this metric is to understand if the utility is falling behind, catching up, or appropriately managing its asset management activities.

9. Time between the utility detecting an ignition and the utility notifying public safety partners (new)	Median time between ignition detection and alarm at monitoring system 95 percentile time between ignition detection and alarm at monitoring system Median time between alarm reaching monitoring system and detection verification 95 percentile time between alarm reaching monitoring system and detection verification Median time between alarm reaching monitoring system and notifying authorities 95 percentile time between alarm reaching monitoring system and notifying authorities	This metric focuses on the fires which are detected first by the utility, rather than reported by third-party sources. This metric is intended to understand how quickly the utility notifies public safety partners to fires detected in their service territory (regardless of whether they were started by the utility or other sources). The median time is intended to understand "typical" response times. The 95 percentile time is intended to understand "atypical" response times (e.g., more complex issues, peak seasons). This has several sub metrics based on the timing of key events in the incident (time to alarm, time to confirmation, and time of notifying the public safety partners).
15. Grid condition finding from inspections (amended)	Number of assets / structures inspected Number of circuit miles inspected Level 1 findings Level 2 findings Level 3 findings	This metric was further broken down by inspection type and technology than was previously collected. Energy Safety subject matter experts were requesting this additional information through data requests during the review process to better understand utility initiatives.
16. Grid condition fixes in response to inspection findings (new)	Level 1 findings fixed Level 2 findings fixed Level 3 findings fixed	The total number of assets fixed by the utility based on findings of different levels and from different types of inspections.

17. Vegetation clearance findings from inspection (amended)	Number of trees inspected for vegetation compliance Number of trees inspected where at least some vegetation was found in a non-compliant condition	The total number of assets fixed by the utility based on findings of different levels and from different types of inspections. This metric was requested by Energy Safety compliance to support their review of utility asset management programs. The breakdown by inspection type in this metric was re-categorized to emphasize routine vs. non-routine inspections. In addition, the metric was further broken down by inspection methodology. This previously was based on the span length inspected, but has been changed to the number of trees to be aligned with how the data is collected. Energy Safety subject matter experts were requesting this additional information through data requests during the review process to better understand utility initiatives.

Removed Metrics		
Metric Number & Type	**Outcome Metric Name**	Detailed Descriptions
8. Fatalities resulting from utility wildfire mitigation initiatives	8.a. Fatalities due to utility wildfire mitigation activities (total) – "activities" defined as all activities accounted for in the 2020 WMP proposed WMP spend.	This metric was originally included in the Table 2 of Resolution WSD-011. Energy Safety indicated that this metric concerns health and safety issues that are covered by other state or federal authorities.
9. Occupational Safety and Health Administration	OSHA – reportable injuries due to utility wildfire mitigation activities (total) – "activities" defined as all	This metric was originally included in the Table 2 of Resolution WSD-011. Energy Safety indicated that this metric concerns

(OSHA)-reportable injuries from utility wildfire mitigation initiatives	activities accounted for in the 2020 WMP proposed WMP spend.	health and safety issues that are covered by other state or federal authorities.

1.2. Discussion on Attachment 1, Performance Metrics

Energy Safety's existing metrics 1.a. through 1.d., 10.a., 10.b., 11.a., 11.b., 12.a., 12.b., 13.a., 14.a., and 14.b. are appropriately retained for 2022. These existing metrics quantify consequences resulting from the implementation of WMPs and provide insights that will measure improvements to wildfire mitigation and inspection programs specified in the approved WMPs.

The new and amended metrics Energy Safety recommends provide additional measurements including, but not limited to, response time to address inspection findings, numbers of work orders for vegetation management and asset management, and frequency of exceeding designed grid capacity, to quantify utilities' wildfire mitigation performance. The new and amended metrics measure:

- Consequences resulting from WMP implementation (Metric 1.e., Outage events caused by fast trip);
- How quickly utility is performing mitigation and reducing risk (Metrics 2. Time between vegetation inspection finding and trimming, and 3.-5. Time between asset inspection finding and maintenance);
- How well the utility is designing and planning for the long-term health of the system and its growing customer base (Metric 6. Circuit mile days operated above carrying capacity);
- Trends in vegetation and asset management (Metrics 7.a. Open vegetation management work orders, 7.b. Past due vegetation management work orders, 8.a. Open asset management work orders, and 8.b. Past due asset management work orders);
- Maturity of situational awareness systems (Metric 9. Time between ignition detection and notification to public safety partners); and
- Trends in inspection findings (Metrics 15. Grid condition findings, 16. Grid condition fixes, and 17. Vegetation clearance findings).

These new and amended metrics appropriately assess the effectiveness of WMP implementation. The Commission supports Energy Safety's decision to incorporate twelve (12) new metrics 1.e, 2, 3, 4, 5, 6, 7, 8, 9, and 16, and two (2) amended metrics 15 and 17, because these metrics appropriately measure utilities' performance in executing the WMPs and effectiveness in mitigating wildfire impacts.

The removal of metrics for fatalities and OSHA reportable injuries resulting from the implementation of WMP initiatives is consistent with Energy Safety's mission in overseeing WMP implementation. The Commission agrees that monitoring fatalities or injuries resulting from implementing WMP initiatives may be outside the purview of Energy Safety and can be covered by other state or federal authorities such as OSHA.

Pursuant to § 8389(d)(1), the Commission adopts Energy Safety's recommendations on performance metrics attached hereto as Attachment 1, including the existing performance metrics carried over from 2022 and the new and amended performance metrics recommended for 2023.

2. Attachment 2: Review of Additional WMP Requirements

Energy Safety recommends retaining the existing WMP requirements for 2023.[8] Existing requirements include requirements defined in Pub. Util. Code § 8386(c)[9] which states:

> (c) The wildfire mitigation plan shall include all of the following:
>
> (1) An accounting of the responsibilities of persons responsible for executing the plan.
>
> (2) The objectives of the plan.
>
> (3) A description of the preventive strategies and programs to be adopted by the electrical corporation to minimize the risk of its electrical lines and equipment causing catastrophic wildfires, including consideration of dynamic climate change risks.
>
> (4) A description of the metrics the electrical corporation plans to use to evaluate the plan's performance and the assumptions that underlie the use of those metrics.
>
> (5) A discussion of how the application of previously identified metrics to previous plan performances has informed the plan.

[8] Recommendation on Additional Requirements for the 2023 Wildfire Mitigation Plans of Electrical Corporations, Attachment 2 hereto.

[9] Amended by Stats. 2021, Ch. 244, Sec. 1. (SB 533) Effective January 1, 2022.

(6) A description of the electrical corporation's protocols for disabling reclosers and deenergizing portions of the electrical distribution system that consider the associated impacts on public safety. As part of these protocols, each electrical corporation shall include protocols related to mitigating the public safety impacts of disabling reclosers and deenergizing portions of the electrical distribution system that consider the impacts on all of the following:

(A) Critical first responders.

(B) Health and communication infrastructure.

(C) Customers who receive medical baseline allowances pursuant to subdivision (c) of Section 739. The electrical corporation may deploy backup electrical resources or provide financial assistance for backup electrical resources to a customer receiving a medical baseline allowance for a customer who meets all of the following requirements:

(i) The customer relies on life-support equipment that operates on electricity to sustain life.

(ii) The customer demonstrates financial need, including through enrollment in the California Alternate Rates for Energy program continued pursuant to Section 739.1.

(iii) The customer is not eligible for backup electrical resources provided through medical services, medical insurance, or community resources.

(D) Subparagraph (C) shall not be construed as preventing an electrical corporation from deploying backup electrical resources or providing financial assistance for backup electrical resources under any other authority.

(7) A description of the electrical corporation's appropriate and feasible procedures for notifying a customer who may be impacted by the deenergizing of electrical lines, including procedures for those customers receiving medical baseline allowances as described in paragraph (6). 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 deenergization for a given event. The procedures shall comply with any orders of the commission regarding notifications of deenergization events.

(8) Identification of circuits that have frequently been deenergized pursuant to a deenergization event to mitigate the risk of wildfire and the measures taken, or planned to be taken, by the electrical corporation to reduce the need for, and impact of, future deenergization of those circuits, including, but not limited to, the estimated annual decline in circuit deenergization and deenergization impact on customers, and replacing, hardening, or undergrounding any portion of the circuit or of upstream transmission or distribution lines.

(9) Plans for vegetation management.

(10) Plans for inspections of the electrical corporation's electrical infrastructure.

(11) A description of the electrical corporation's protocols for the deenergization of the electrical corporation's transmission infrastructure, for instances when the deenergization may impact customers who, or entities that, are dependent upon the infrastructure. The protocols shall comply with any order of the commission regarding deenergization events.

(12) A list that identifies, describes, and prioritizes all wildfire risks, and drivers for those risks, throughout the electrical corporation's service territory, including all relevant wildfire risk and risk mitigation information that is part of the commission's Safety Model Assessment Proceeding (A.15-05-002, et al.) and the Risk Assessment Mitigation Phase filings. The list shall include, but not be limited to, both of the following:

(A) Risks and risk drivers associated with design, construction, operations, and maintenance of the electrical corporation's equipment and facilities.

(B) Particular risks and risk drivers associated with topographic and climatological risk factors throughout the different parts of the electrical corporation's service territory.

(13) A description of how the plan accounts for the wildfire risk identified in the electrical corporation's Risk Assessment Mitigation Phase filing.

(14) A description of the actions the electrical corporation will take to ensure its system will achieve the highest level of safety, reliability, and resiliency, and to ensure that its system is prepared for a major event, including hardening and modernizing its infrastructure with improved engineering, system design,

standards, equipment, and facilities, such as undergrounding, insulating of distribution wires, and replacing poles.

(15) A description of where and how the electrical corporation considered undergrounding electrical distribution lines within those areas of its service territory identified to have the highest wildfire risk in a commission fire threat map.

(16) A showing that the electrical corporation has an adequately sized and trained workforce to promptly restore service after a major event, taking into account employees of other utilities pursuant to mutual aid agreements and employees of entities that have entered into contracts with the electrical corporation.

(17) Identification of any geographic area in the electrical corporation's service territory that is a higher wildfire threat than is currently identified in a commission fire threat map, and where the commission should consider expanding the high fire threat district based on new information or changes in the environment.

(18) A methodology for identifying and presenting enterprise-wide safety risk and wildfire-related risk that is consistent with the methodology used by other electrical corporations unless the commission determines otherwise.

(19) A description of how the plan is consistent with the electrical corporation's disaster and emergency preparedness plan prepared pursuant to Section 768.6, including both of the following:

(A) Plans to prepare for, and to restore service after, a wildfire, including workforce mobilization and prepositioning equipment and employees.

(B) Plans for community outreach and public awareness before, during, and after a wildfire, including language notification in English, Spanish, and the top three primary languages used in the state other than English or Spanish, as determined by the commission based on the United States Census data.

(20) A statement of how the electrical corporation will restore service after a wildfire.

(21) Protocols for compliance with requirements adopted by the commission regarding activities to support customers during and after a wildfire, outage reporting, support for low-income customers, billing adjustments, deposit waivers, extended payment plans, suspension of disconnection and nonpayment fees, repair

processing and timing, access to electrical corporation representatives, and emergency communications.

(22) A description of the processes and procedures the electrical corporation will use to do all of the following:

(A) Monitor and audit the implementation of the plan.

(B) Identify any deficiencies in the plan or the plan's implementation and correct those deficiencies.

(C) Monitor and audit the effectiveness of electrical line and equipment inspections, including inspections performed by contractors, carried out under the plan and other applicable statutes and commission rules.

(23) Any other information that the Wildfire Safety Division may require.

In 2021, Energy Safety published its Guidelines on the 2022 WMP Updates.[10] These guidelines are organized as follows:

Introduction

Glossary of Terms

Section 1 – Persons responsible for executing the WMP

Section 2 – Adherence to statutory requirements[11]

Section 3 – Actuals and Planned spending for mitigation plan

Section 4 – Lesson Learned and Risk Trends

Section 5 – Inputs to the plan and direction vision for WMP

Section 6 – Performance metrics and underlying data

Section 7 – Mitigation Initiatives

Risk mapping and simulation

Situational awareness and forecasting

Grid design and system hardening

Asset management and inspections

[10] More information is available at (accessed on August 26, 2022): https://energysafety.ca.gov/what-we-do/electrical-infrastructure-safety/wildfire-mitigation-and-safety/wildfire-mitigation-plans/2022-wmp/.

[11] This section of the 2022 WMP Guidelines illustrates in which section of the plan the utility addresses each category listed in Pub. Util. Code § 8386(c).

Vegetation management and inspections

Grid operations and protocols

Data governance

Resource allocation methodology

Emergency planning and preparedness

Stakeholder cooperation and community engagement

Section 8 – Public Safety Power Shutoffs (PSPS)

Section 9 – Appendix (Definitions of Initiative activities, and citations for relevant statues)

Energy Safety's Guidelines defined the parameters of what electrical corporations were required to include in the 2022 WMP Update submissions within the categories required by Pub. Util. Code § 8386(c)(1) through § 8386(c)(22). For instance, Section 2 of Energy Safety's WMP Guidelines for the 2022 WMP Updates (2022 WMP Guidelines) explained which section of the WMP the utility addresses each of the twenty-three requirements in Pub. Util. Code § 8386(c). The 2022 WMP Guidelines did not impose requirements pursuant to Pub. Util. Code § 8386(c)(23), "[a]ny other information that [Energy Safety] may require." The 2022 WMP Guidelines requested more granular information compared to the 2021 WMP Guidelines, but did not add new categories of information.

As described in Attachment 2, Additional Requirements for the 2023 Wildfire Mitigation Plans of Electrical Corporations, Energy Safety proposes the same approach for the 2023 WMP Guidelines and does not plan to include any new WMP requirements in the 2023 Draft WMP Guidelines.

Consistent with Energy Safety's recommendation in its Additional Requirements for Wildfire Mitigation Plans, contained in Attachment 2, the Commission will not adopt additional WMP requirements for the 2023 WMPs. Existing requirements as defined in § 8386(c) and approved by the Commission in Resolution M-4860 remain in place.

COMMENTS

Pub. Util. Code § 311(g)(1) provides that resolutions must be served on all parties and subject to at least 30 days public review. However, given that this Resolution is issued outside of a formal proceeding, interested stakeholders need not have party status in a Commission proceeding in order to submit comments. Comments are due 20 days from the mailing date of this Resolution. Replies will not be accepted.

This draft Resolution was served on the service list of R.18-10-007, noticed on the Commission's Daily Calendar, and will be placed on the Commission's agenda no earlier than 30 days from today.

FINDINGS

1. Pub. Util. Code §§ 8389(d)(1) and (2) require the Commission to adopt, after consultation with Energy Safety, the following: (1) performance metrics for electrical corporations, and (2) additional requirements for wildfire mitigation plans. This Resolution with its Attachments meets each of the foregoing requirements.

2. Pub. Util. Code § 326(a)(1) requires Energy Safety to oversee and enforce electrical corporations' compliance with wildfire safety pursuant to Chapter 6 (commencing with § 8385) of Division 4 and § 8386.3(c) requires Energy Safety to oversee compliance with the WMPs.

3. Energy Safety's proposal to maintain the existing performance metrics, add new performance metrics for 2023, and amend other performance metrics as set forth in Attachment 1, hereto, is reasonable.

4. Energy Safety's proposal to maintain the existing WMP requirements, as set forth in Attachment 2, hereto, is reasonable.

5. Energy Safety's recommendations contained in Attachment 1 regarding performance metrics and Attachment 2 regarding maintaining existing WMP requirements reasonably address the requirements of Public Utilities Code §§ 8389(d)(1) and (2).

THEREFORE, IT IS ORDERED THAT:

1. The Office of Energy Infrastructure Safety's recommendations are hereby adopted for the following: (1) performance metrics for electrical corporations, and (2) additional requirements for wildfire mitigation plans.

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 October 20, 2022; the following Commissioners voting favorably thereon:

_____
Rachel Peterson
Executive Director

Attachment 1:
Office of Energy Infrastructure Safety 2022 Review of Performance Metrics for Electrical Corporations

Attachment 2:
Office of Energy Infrastructure Safety Additional Requirements for the Electrical Corporations' 2023 Wildfire Mitigation Plans

OFFICE OF ENERGY INFRASTRUCTURE SAFETY

ATTACHMENT 1

2022 Review of Performance Metrics for Electrical Corporations

August 2022

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INTRODUCTION

Public Utilities Code section 8389(d) requires the California Public Utilities Commission (Commission), after consultation with the Office of Energy Infrastructure Safety (Energy Safety), to adopt and approve the following:

1. Performance metrics for electrical corporations.
2. Additional requirements for wildfire mitigation plans.
3. A wildfire mitigation plan compliance process.
4. A process for the division to conduct annual safety culture assessments for each electrical corporation.

This document constitutes Energy Safety's consultation regarding Public Utilities Code section 8389(d)(1) performance metrics for electrical corporations.

RECOMMENDATIONS

2022 Review of Performance Metrics for Electrical Corporations

RECOMMENDATIONS

Public Utilities Code section 8386(c)(4) describes performance metrics as:

A description of the metrics the electrical corporation plans to use to evaluate the plan's performance and the assumptions that underlie the use of those metrics.

Performance metrics indicate the extent to which an electrical corporation's Wildfire Mitigation Plans is driving performance outcomes. The performance metrics that electrical corporations are required to report on were published by the Commission in 2020 within Table 2, Recent performance on outcome metrics, in Attachment 2.3 of *Resolution WSD-011*[1] *(Resolution implementing the requirements of Public Utilities Code Sections 8389 (d) (1), (2), and (4)), related to catastrophic wildfire caused by electrical corporations subject to the Commission's regulatory authority.*[2]

Energy Safety has reviewed these performance metrics and updated Table 2 to reflect any new or amended performance metrics it plans to include in the 2023 Draft WMP Guidelines. The tables included within this document, identify existing performance metrics retained followed by draft new and amended performance metrics for 2023.

Energy Safety proposes to remove two performance metrics that were originally included within Table 2: metric 8 (fatalities resulting from utility wildfire mitigation initiatives) and metric 9 (Occupational Safety and Health Administration (OSHA)-reportable injuries from utility wildfire mitigation initiatives). These metrics are health and safety issues that are covered by other state or federal authorities (i.e., OSHA).

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[1] 352490594.docx (live.com) (accessed July 6, 2022)

[2] attachment-2.3-to-wsd-011-2021-performance-metrics-data-templates.xlsx (live.com) (accessed July 6, 2022)

Existing Performance Metrics

The Table below details existing performance metrics Energy Safety proposed to retain unmodified for 2023. New and amended performance metrics are listed in the following section.

All the existing performance metrics below will be included within the 2023 Draft WMP Guidelines that Energy Safety is publishing for public comment and finalizing before the end of this year.

Metric type	#	Outcome metric name	Wind Warning Status	HFTD Tier	Line Type	Inspection Type	Inspection Method
1. Risk Events	1.a.	Number of all events with probability of ignition, including wires down, contacts with objects, line slap, events with evidence of heat generation, and other events that cause sparking or have the potential to cause ignition	All RFW HWW HWW & RFW HWW & not RFW	HFTD Tier 2 HFTD Tier 3 Not-HFTD	N/A	N/A	N/A
1. Risk Events	1.b.	Number of wires down	All RFW HWW HWW & RFW HWW & not RFW	HFTD Tier 2 HFTD Tier 3 Not-HFTD	N/A	N/A	N/A
1. Risk Events	1.c.	Number of outage events not caused by contact with vegetation	All RFW HWW HWW & RFW HWW & not RFW	HFTD Tier 2 HFTD Tier 3 Not-HFTD	N/A	N/A	N/A
1. Risk Events	1.d.	Number of outage events caused by contact with vegetation	All RFW	HFTD Tier 2 HFTD Tier 3	N/A	N/A	N/A

Metric type	#	Outcome metric name	Wind Warning Status	HFTD Tier	Line Type	Inspection Type	Inspection Method
			HWW HWW & RFW HWW & not RFW	Not-HFTD			
10. Fatalities and injuries due to utility-related ignitions	10.a.	Fatalities due to utility-related ignitions (total)	N/A	N/A	N/A	N/A	N/A
	10.b.	Injuries due to utility-related ignitions (total)	N/A	N/A	N/A	N/A	N/A
11. Value of assets destroyed by utility-related ignitions, listed by asset type	11.a.	Value of assets destroyed by utility-related ignitions (total)	N/A	N/A	N/A	N/A	N/A
12. Structures damaged or destroyed by utility-related ignitions	12.a.	Number of structures destroyed by utility-related ignitions (total)	N/A	N/A	N/A	N/A	N/A
	12.b.	Critical infrastructure damaged/destroyed by utility-related ignitions (total)	N/A	N/A	N/A	N/A	N/A

Metric type	#	Outcome metric name	Wind Warning Status	HFTD Tier	Line Type	Inspection Type	Inspection Method
13. Acreage burned by utility-ignited wildfires	13.a.	Number of acres burned by utility-ignited wildfires	N/A	N/A	N/A	N/A	N/A
14. Number of utility-related ignitions	14.a.	Number of ignitions (total) according to existing ignition data reporting requirement	N/A	N/A	N/A	N/A	N/A
	14.b.	Number of ignitions	All RFW HWW HWW & RFW HWW & not RFW	HFTD Tier 2 HFTD Tier 3 Not-HFTD	N/A	N/A	N/A
18. Community outreach metrics*	18.a.	% of customers notified of evacuation in evacuation zone of a utility-ignited wildfire	N/A	N/A	N/A	N/A	N/A

* Metric 18 previously was part of Table 1 (recent performance on progress metrics) rather than Table 2 in Attachment 2.3 of Resolution WSD-011

New and Amended Performance Metrics

The Table below details new and amended performance metrics for 2023. Existing performance metrics are listed in the section above.

New performance metrics are highlighted green and amended performance metrics are highlighted blue. Amended performance metrics are previously required metrics (published within Attachment 2.3 of Resolution WSD_011) that Energy Safety has reviewed and modified.

The table below also contains a detailed description and rationale for each new and amended performance metric.

All the performance metrics below will be included within the 2023 Draft WMP Guidelines that Energy Safety is publishing for public comment and finalizing before the end of this year.

Metric number and type	Outcome metric name	Detailed Description	Purpose of Data Collection	Wind Warning Status	HFTD Tier	Line Type	Insp. Type	Insp. Method
1.e. Risk Events	Number of outage events caused by fast trip / increased sensitivity to faults	The number of events where power transmission was halted due to the automatic response of a sensing technology deployed to a circuit	This metric can be used to quantify consequences resulting from implementation of fast trip technology and inform analysis of potential impact on wildfire safety	All RFW HWW HWW & RFW HWW & not RFW	HFTD Tier 2 HFTD Tier 3 Not-HFTD	N/A	N/A	N/A
2. Time between vegetation inspection finding and resulting trimming activity	Median time 95 percentile time	This metric is intended to understand how quickly the utility responds to a vegetation finding within different areas of their service territory. The median time is intended to understand "typical" response times. The 95 percentile time is intended to understand "atypical" response times (e.g., more complex issues, peak seasons)	Utilities may have effective inspection programs that correctly identify hazard trees and potential clearance distance issues. However, the risk of an outage/wildfire in the area near a finding is not decreased unless the finding is addressed. This metric provides additional insight on the performance of the utility vegetation management program and its potential impact on wildfire safety.	N/A	HFTD Tier 2 HFTD Tier 3 Not-HFTD	Distrib. Transm.	N/A	N/A

Metric number and type	Outcome metric name	Detailed Description	Purpose of Data Collection	Wind Warning Status	HFTD Tier	Line Type	Insp. Type	Insp. Method
3. Time between level 1 asset inspection finding and resulting maintenance activity	Median time 95 percentile time	This metric is intended to understand how quickly the utility responds to a level 1 finding from an asset inspection within different areas of their service territory. Level 1, 2, and 3 are in reference to GO-95 rule 18 priority levels. The median time is intended to understand "typical" response times. The 95 percentile time is intended to understand "atypical" response times (e.g., more complex issues, peak seasons)	Utilities may have effective inspection programs that correctly identify asset issues. However, the risk of an outage/wildfire in the area near a finding is not decreased unless the finding is addressed. This metric provides additional insight on the performance of the utility asset management program and its potential impact on wildfire safety.	N/A	HFTD Tier 2 HFTD Tier 3 Not-HFTD	Distrib. Transm.	N/A	N/A
4. Time between level 2 asset inspection finding and resulting maintenance activity	Median time 95 percentile time	See discussion on level 1 findings.	See discussion on level 1 findings.	N/A	HFTD Tier 2 HFTD Tier 3 Not-HFTD	Distrib. Transm.	N/A	N/A
5. Time between level 3 asset	Median time	See discussion on level 1 findings.	See discussion on level 1 findings.	N/A	HFTD Tier 2	Distrib.	N/A	N/A

Metric number and type	Outcome metric name	Detailed Description	Purpose of Data Collection	Wind Warning Status	HFTD Tier	Line Type	Insp. Type	Insp. Method
inspection finding and resulting maintenance activity	95 percentile time				HFTD Tier 3 Not-HFTD	Transm.		
6. Circuit mile days operated above rated current carrying capacity	Circuit mile days operated above nameplate capacity - determined by multiplying, for each circuit, the circuit length in miles by the time operated above nameplate capacity in days, and summing the products across all circuits.	Operating the grid above current carrying capacity can result in permanent damage to conductors and other equipment, which can increase the wildfire risk (e.g., premature failure / line down event).	Understanding the total circuit mile days operated above current carrying capacity helps understand the long-term trends in the utility grid design. Monitoring this metric over time will provide insight to whether the utility is designing and operating its grid to meet the needs of a growing customer base and/or aging equipment and its potential impact on wildfire safety.	All RFW HWW HWW & RFW HWW & not RFW	HFTD Tier 2 HFTD Tier 3 Not-HFTD	N/A	N/A	N/A
7.a. Vegetation management work orders	Number of vegetation open work orders (total)	The total number of open work orders that prescribe vegetation management activities. The focus of this metric is to understand if the utility is falling behind, catching up, or appropriately managing	This metric can provide additional insight and be used to quantify trends in vegetation activity, make comparisons between utilities, and assess potential impact on wildfire safety.	N/A	N/A	N/A	N/A	N/A

Metric number and type	Outcome metric name	Detailed Description	Purpose of Data Collection	Wind Warning Status	HFTD Tier	Line Type	Insp. Type	Insp. Method
		its vegetation management activities.						
7.b. Vegetation management work orders	Number of vegetation past due work orders (total)	The total number of past due work orders that prescribe vegetation management activities. The focus of this metric is to understand if the utility is falling behind, catching up, or appropriately managing its vegetation management activities.	This metric can provide additional insight and be used to quantify trends in vegetation activity, make comparisons between utilities, and assess potential impact on wildfire safety.	N/A	N/A	N/A	N/A	N/A
8.a. Asset management work orders	Number of asset management open work orders (total)	The total number of open work orders that prescribe asset management activities. The focus of this metric is to understand if the utility is falling behind, catching up, or appropriately managing its asset management activities.	This metric can provide additional insight and be used to quantify trends in asset management activity, make comparisons between utilities, and assess potential impact on wildfire safety.	N/A	N/A	N/A	N/A	N/A
8.b. Asset management work orders	Number of asset management past due work orders (total)	The total number of past due work orders that prescribe asset management activities. The focus of this metric is to understand if the utility is falling behind, catching up, or appropriately managing	This metric can provide additional insight and be used to quantify trends in asset management activity, make comparisons between utilities, and assess	N/A	N/A	N/A	N/A	N/A

Metric number and type	Outcome metric name	Detailed Description	Purpose of Data Collection	Wind Warning Status	HFTD Tier	Line Type	Insp. Type	Insp. Method
		its asset management activities.	potential impact on wildfire safety.					
9. Time between the utility detecting an ignition and the utility notifying public safety partners	Median time between ignition detection and alarm at monitoring system 95 percentile time between ignition detection and alarm at monitoring system Median time between alarm reaching monitoring system and detection verification 95 percentile time between alarm reaching monitoring system and detection verification Median time between alarm reaching monitoring system and notifying authorities 95 percentile time between alarm reaching monitoring	This metric focuses on the fires which are detected first by the utility, rather than reported by third-party sources. This metric is intended to understand how quickly the utility notifies public safety partners to fires detected in their service territory (regardless of whether they were started by the utility or other sources). The median time is intended to understand "typical" response times. The 95 percentile time is intended to understand "atypical" response times (e.g., more complex issues, peak seasons). This has several sub metrics based on the timing of key events in the incident (time to alarm, time to confirmation, and time of	This metric will provide insight on the maturity of utility situational awareness capabilities and its potential impact on wildfire safety.	N/A	N/A	N/A	N/A	N/A

Metric number and type	Outcome metric name	Detailed Description	Purpose of Data Collection	Wind Warning Status	HFTD Tier	Line Type	Insp. Type	Insp. Method
	system and notifying authorities	notifying the public safety partners).						
15. Grid condition findings from inspection*	Number of assets / structures inspected Number of circuit miles inspected Level 1 findings Level 2 findings Level 3 findings	This metric was further broken down by inspection type and technology than was previously collected. Energy Safety subject matter experts were requesting this additional information through data requests during the review process to better understand utility initiatives.	This information was used during 2022 to support WMP evaluation. It is intended to be used in a similar role in 2023. In addition, this metric will provide insight and be used to quantify trends in number of inspection findings as well as the ratio of fixes to findings (see new metric 16, above) and assess potential impact on wildfire safety.	N/A	HFTD Tier 2 HFTD Tier 3 Not-HFTD	Distrib. Transm.	Detailed Patrol Other	Drone Aerial LiDAR Other
16. Grid condition fixes in response to inspection findings	Level 1 findings fixed Level 2 findings fixed Level 3 findings fixed	The total number of assets fixed by the utility based on findings of different levels and from different types of inspections.	This metric will provide insight and be used to quantify trends in number of fixes as well as the ratio of fixes to findings and assess potential impact on wildfire safety. It will also help track carry-over risk year over year and support cross-utility comparisons of	N/A	HFTD Tier 2 HFTD Tier 3 Not-HFTD	Distrib. Transm.	Detailed Patrol Other	Drone Aerial LiDAR Other

Metric number and type	Outcome metric name	Detailed Description	Purpose of Data Collection	Wind Warning Status	HFTD Tier	Line Type	Insp. Type	Insp. Method
			asset management programs.					
17. Vegetation clearance findings from inspection*	Number of trees inspected for vegetation compliance Number of trees inspected where at least some vegetation was found in non-compliant condition	The breakdown by inspection type in this metric was re-categorized to emphasize routine vs. non routine inspections. In addition, the metric was further broken down by inspection methodology. This previously was based on the span length inspected, but has been changed to number of trees to be aligned with how the data is collected. Energy Safety subject matter experts were requesting this additional information through data requests during the review process to better understand utility initiatives.	This information was used during 2022 to support WMP evaluation. It is intended to be used in a similar manner in 2023. This metric will provide insight and be used to quantify trends in number of vegetation inspection findings and assess potential impact on wildfire safety.	N/A	HFTD Tier 2 HFTD Tier 3 Not-HFTD	Distrib. Transm.	Routine Non-Routine	Drone Aerial LiDAR Other

* Metrics 15 and 17 previously were part of Table 1 (recent performance on progress metrics) rather than Table 2 in Attachment 2.3 of Resolution WSD-011

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ATTACHMENT 2

Additional Requirements for the Electrical Corporations' 2023 Wildfire Mitigation Plans

July 2022

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RECOMMENDATION ON ADDITIONAL WILDFIRE MITIGATION PLAN REQUIREMENTS 2

INTRODUCTION

Public Utilities Code section 8389(d) requires the California Public Utilities Commission (Commission), after consultation with the Office of Energy Infrastructure Safety (Energy Safety), to adopt and approve the following:

1. Performance metrics for electrical corporations.
2. Additional requirements for wildfire mitigation plans.
3. A wildfire mitigation plan compliance process.
4. A process for the division to conduct annual safety culture assessments for each electrical corporation.

This document constitutes Energy Safety's consultation regarding Public Utilities Code section 8389(d)(2) additional requirements for the electrical corporations' 2023 Wildfire Mitigation Plans (WMPs) .

RECOMMENDATION ON ADDITIONAL WILDFIRE MITIGATION PLAN REQUIREMENTS

Energy Safety is in the process of updating its WMP Guidelines that will apply to the new WMP three-year cycle commencing in 2023 (2023 Draft WMP Guidelines). Energy Safety is drafting the 2023 Draft WMP Guidelines to reorganize the way in which the electrical corporations report on their mitigation plans to enhance transparency and improve the flow of information. Furthermore, the 2023 Draft WMP Guidelines will expand current requirements to direct the electrical corporations to provide further details on aspects of an electrical corporation's WMP, such as the risk modeling process, risk-informed decision making, and situational awareness and forecasting. While this approach changes the level of granularity required in the WMP, the information to be included in the plan stems from the existing WMP requirements set forth in Public Utilities Code section 8386 (c).

Energy Safety does not plan to include any new WMP requirements in its 2023 Draft Guidelines.

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