

PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

WILDFIRE SAFETY DIVISION

RESOLUTION WSD-019

July 15, 2021

R E S O L U T I O N

RESOLUTION WSD-019 Resolution Ratifying Action of the Wildfire Safety Division on San Diego Gas & Electric's 2021 Wildfire Mitigation Plan Update Pursuant to Public Utilities Code Section 8386.

This Resolution ratifies the attached Action Statement (Appendix A) of the Wildfire Safety Division (WSD)¹ approving San Diego Gas & Electric's (SDG&E, or electrical corporation) 2021 Wildfire Mitigation Plan (WMP) Update pursuant to Public Utilities Code Section 8386.

Ensuring the safety of Californians is a central responsibility of the California Public Utilities Commission (Commission) and the WSD. Since several catastrophic wildfires in the San Diego area in 2007, the equipment of large electric utilities the Commission regulates has been implicated in the most devastating wildfires in our state's history. The California Legislature enacted several measures requiring electrical corporations to submit, and the WSD to review, approve, or otherwise act on, WMPs designed to reduce the risk of utility-related catastrophic wildfire. Key among the legislative measures are Senate Bill 901 (2018), Assembly Bill 1054 (2019), and Assembly Bill 111 (2019), discussed in detail below.

This Resolution acts on the WMP Update submitted on February 5, 2021, of SDG&E pursuant to Public Utilities Code Section 8386.3(c). SDG&E's WMP Update responds to a list of 22

¹ Because the WSD transitioned to the Office of Energy Infrastructure Safety (Energy Safety) on July 1, 2021, any references herein to WSD actions that post-date this transition should be interpreted as actions taken by Energy Safety or for which Energy Safety will take responsibility. Section 10 of this Resolution provides further detail on the transition of the WSD to Energy Safety.

requirements set forth in Public Utilities Code 8386. SDG&E submitted a comprehensive WMP in 2020 covering the three-year period 2020-2022. This WMP focused on measures the electrical corporation will take to reduce the risk of, and impact from, a catastrophic wildfire related to its electrical infrastructure and equipment. SDG&E's 2021 WMP Update provides information on SDG&E's progress over the past year as well as updates to its 2021 and 2022 projections. In addition, the 2021 WMP Update responds to additional requirements and metrics approved by the Commission in Resolution WSD-011.

In ratifying SDG&E's 2021 WMP Update, the Commission has reviewed the WSD's analysis in terms of the extent to which SDG&E's wildfire mitigation efforts objectively reduce wildfire risk and drive improvement, the comments from the Wildfire Safety Advisory Board, the public and other stakeholders.

THE PROPOSED OUTCOME:

- Ratifies the attached action of the WSD to approve the 2021 WMP Update of SDG&E.
- Evaluates the maturity of SDG&E's 2021 WMP Update using the WSD's Utility Wildfire Mitigation Assessment, as represented in the Utility Wildfire Mitigation Maturity Model. Final Maturity Model outputs should be viewed as levels or thresholds – they are not absolute scores.
- Requires SDG&E to submit an update to its WMP in 2022 according to a forthcoming schedule to be released by the WSD.
- Does not approve costs attributable to WMPs, as statute requires electrical corporations to seek and prove the legitimacy of all expenditures at a future time in their General Rate Cases (GRC) or application for cost recovery. Nothing in this Resolution nor the WSD's Action Statement should be construed as approval of any WMP-related costs.
- Does not establish a defense to any enforcement action for a violation of a Commission decision, order, or rule.

SAFETY CONSIDERATIONS:

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

- WMPs articulate an electrical corporation's understanding of its utility-related wildfire risk and the proposed actions to reduce that risk and prevent catastrophic wildfires caused by utility infrastructure and equipment. By implementing measures such as vegetation management, system hardening (such as insulating overhead lines and removing or upgrading equipment most likely to cause fire ignition), grid topology improvements (such as installation and operation of electrical equipment to sectionalize or island portions of the grid), improving asset inspection and maintenance, situational awareness (such as cameras, weather stations, and use of data to predict areas of highest fire threat), improving community engagement and awareness, and other measures, utility-related catastrophic wildfire risk should be reduced over time.
- The substantive and procedural changes enacted by the WSD and the Commission in the evaluation of the electrical corporations' 2021 WMP Updates will enhance California's ability to mitigate utility-related catastrophic wildfire risk. Below is a summary of the key new requirements in the 2021 process required of all utilities submitting a WMP Update. In 2021, WMP Updates were required to:
 - Include a checklist of the 22 Public Utilities Code Section 8386(c) requirements to assist WSD staff in locating the sections that meet these requirements.
 - Be more granular overall to help the WSD staff better understand resource allocation, local community conditions and other detailed information previously requested at a more aggregated level.
 - Provide more details showing how utilities are mitigating the impact of wildfires and PSPPS on vulnerable, marginalized, and at-risk communities.
 - Report the utility's methodology for calculating the increase costs to ratepayers.
 - Report the details of the utility's methods for modeling ignition probability.

- Report the utility's process for calculating specific metrics including Red Flag Warning and High Wind Warning overhead circuit mile days, the Access and Functional Needs population, the wildland urban interface (WUI) territory, and highly rural, rural, and urban territories.
- Include a narrative explaining the qualifications of certain utility workers in roles related to wildfire & PSPS mitigation.
- Include more granular geospatial data to provide metrics at a local level.
- Include more refinement in progress and outcome metrics (e.g., inspection effectiveness, risk events).
- Include an explanation wherever the utility could not disaggregate financial spend activities.
- Include citations to relevant state and federal statutes, orders, and proceedings.

ESTIMATED COST:

- Costs are not considered in this Resolution, as Public Utility Code Section 8386.4(b) provides for Commission cost review in a utility General Rate Case or, in some cases, a separate application. Nothing in this Resolution should be construed as approval of the costs associated with the WMP mitigation efforts.
- For illustrative purposes, Table 1 below contains SDG&E's actual costs for 2020 and its projected costs for the implementation of wildfire mitigation efforts in its 2021 WMP Update.
- SDG&E may not record the same costs more than once or in more than one place, seek duplicative recovery of costs, or record or seek to recover costs in the memorandum account already recovered separately. All electrical corporations should ensure they carefully document their expenditures in these memorandum accounts by category and be prepared for Commission review and audit of the accounts at any time.

Table 1: SDG&E's WMP Costs²

Proposed 2020 costs (as reported in the 2020 WMP)	\$452,470,000
Actual 2020 costs (as reported in the 2021 WMP Update)	\$569,237,000
Difference between 2020 proposed/actual costs (+/-)	+\$116,767,000
Proposed 2021 costs	\$646,466,000
Proposed 2022 costs	\$669,869,000
Proposed total costs 2020-2022	\$1,885,572,000

² SDG&E WMP Update Table 3-1, p. 7 (for actual 2020 costs, planned costs for 2021 and full WMP cycle); Question 1 of data request WSD-SDGE-01 and SDG&E's 2020 WMP (for proposed 2020 costs)

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Appendix A - Action Statement

Appendix B - Public Utilities Code Section 8386

1. Summary

This Resolution ratifies the attached Wildfire Safety Division's (WSD) Action Statement approving the 2021 Wildfire Mitigation Plan Update (WMP) submitted by San Diego Gas & Electric Company (SDG&E) on February 5, 2021 (Attachment A). The Commission finds that SDG&E is in compliance with the requirements for WMPs set forth in Assembly Bill (AB) 1054,³ codified at Public Utilities Code (Pub. Util. Code) Section 8386(c) and the WMP Guidelines issued by the Commission to electrical corporations in Resolution WSD-011.⁴ Pub. Util. Code Section 8386(c) requires that electrical corporations' WMPs contain 22 elements; the full list of elements appears in Section 6.1 in this Resolution. The WSD's approval and the Commission's ratification do not relieve the electrical corporation from any and all otherwise applicable permitting, ratemaking, or other legal and regulatory obligations.

2. Background, Procedural Background and Legal Authority

Catastrophic wildfires in 2017-19 led the California Legislature to pass Senate Bill (SB) 901⁵ in 2018 and its successor AB 1054 as well as AB 111 in 2019.⁶ AB 111 establishes a new division, the WSD, within the Commission. SB 901 and AB 1054 contain detailed requirements for electrical corporations' WMPs and provide the WSD three months to review the WMPs. The duties of the WSD are contained in Pub. Util. Code Section 326(a) and include the requirement to evaluate, oversee, and enforce electrical corporations' compliance with wildfire safety requirements and develop and recommend to the Commission performance metrics to achieve maximum feasible wildfire risk reduction.

SB 901 requires electrical corporations to annually prepare and submit a WMP to the Commission for review; the Commission reviewed the 2019 WMPs in Rulemaking (R.) 18-10-007. After the Commission issued its WMP decisions on May 30, 2019,⁷ the Legislature enacted AB 1054. AB 1054 contains similar WMP requirements to SB 901 but allows WMPs a three-year rather than one-year duration. AB 1054 requires the WSD to review and approve or deny electrical corporations' WMPs, with Commission ratification of any approval to follow

³ Stats of 2019, Ch. 79.

⁴ The Commission adopted Resolution WSD-011 on November 19, 2020.

⁵ Stats of 2019, Ch 626.

⁶ Stats of 2019, Ch 81.

⁷ Decisions 19-05-036, -037, -038, -039, -040, and -041 (May 30, 2019).

thereafter. AB 1054 establishes a Wildfire Safety Advisory Board (WSAB) with appointees from the California Governor and Legislature to provide comment on the WMPs and develop and make recommendations related to the metrics used to evaluate WMPs in 2021 and beyond.⁸

Building on lessons learned from the WMP review process in 2019, the WSD developed and required all electrical corporations to conform their WMPs to a set of new WMP Guidelines starting in 2020.⁹ In 2020 electrical corporations submitted comprehensive WMPs covering a three-year period from 2020-2022. The WSD evaluated each electrical corporation's WMP and issued dispositions, ratified by the Commission, in Resolutions WSD-002 through WSD-010.

For 2021, the WMP Guidelines as adopted in Resolution WSD-011 build on the detail, data, and other supporting information provided in the 2020 WMPs and enable the electrical corporation to provide updated information for the 2020-2022 cycle period. The 2021 WMP Guidelines are designed to (1) increase standardization of information collected on electrical corporations' wildfire risk exposure, (2) enable systematic and uniform review of information each electrical corporation submits, and (3) move electrical corporations toward an effective long-term wildfire mitigation strategy with systematic tracking of improvements over time. The WSD designed the 2021 WMP Guidelines to require that each electric corporation have a WMP that contains all elements required by AB 1054. For example, every WMP must contain plans for vegetation management, system hardening, inspections of assets and vegetation, situational awareness, reduction and management of Public Safety Power Shutoff (PSPS) events, customer and first responder outreach and coordination, risk analysis, and geographic information system (GIS) data, as well as a short- and long-term vision, an ignition cause analysis, and many other elements.

In addition to adopting guidelines for the review of 2021 WMPs, Resolution WSD-011 set forth the process for the WSD's and the Commission's review of the electrical corporations' 2021 WMP submissions. The resolution called for Pacific Gas and Electric Company (PG&E), Southern California Edison Company (SCE) and San Diego Gas & Electric Company (SDG&E) (the large electrical corporations) to submit their 2021 WMP Updates on February 5, 2021. The resolution called for PacifiCorp, Bear Valley Electric Service, Inc. (BVES), and

⁸ Pub. Util. Code § 8386.3 (Wildfire Safety Division), § 326.1 (Wildfire Safety Advisory Board).

⁹ A ruling issued on December 19, 2019, in proceeding R.18-10-007 described and attached all of the materials electrical corporations were required to use in submitting their 2020 WMPs.

Liberty Utilities (the small and multijurisdictional electrical corporations, or SMJUs), and Trans Bay Cable, LLC, Horizon West Transmission, LLC (the independent transmission operators or ITOs), to submit their WMP Updates on March 5, 2021. SDG&E timely submitted its 2021 WMP Update.

Shortly after electrical corporations submitted their WMP Updates, the WSD held technical workshops on February 22 and 23, 2021, for the large electrical corporations and March 23, 2021, for the SMJUs and ITOs. The workshops covered topics such as risk management, system design and grid hardening, and efforts to reduce the scale, scope, and frequency of PSPS events.¹⁰ Stakeholders submitted comments on the large electrical corporations' 2021 WMP Updates by March 29, 2021, with replies by April 13, 2021. The WSD accepted comments on the SMJU/ITO 2021 WMP Updates until April 14, 2021, with replies by April 21, 2021.

Notice

In accordance with Pub. Util. Code § 8386(d), notice of SDG&E's 2021 WMP Update was given by posting the WMP Update on the WSD's web page at <https://www.cpuc.ca.gov/wildfiremitigationplans> on February 8, 2021, in accordance with the requirements of Pub. Util. Code Section 8386(d). Further, the electrical corporation served its 2021 WMP Update on the Commission's R.18-10-007 service list, as Resolution WSD-001 requires. Resolution WSD-001 also requires an electrical corporation to post all data request responses and any document referenced in its WMP on its own website. It additionally requires an electrical corporation to notify the R.18-10-007 service list about its website updates on a weekly basis.

3. Wildfire Safety Division Analysis of WMP Updates

To reach a conclusion about each WMP, the WSD reviews each electrical corporation's WMP (including tabular and GIS data), as well as input and comments from WSAB, California Department of Forestry and Fire Protection (CAL FIRE), and stakeholders, responses to data requests, responses to the Maturity Model survey questions, and responses to ongoing reporting required in the 2020 WMP decisions and follow-on submissions.

¹⁰ Details of the workshops appear on the Commission's WMP homepage, located at <https://www.cpuc.ca.gov/wildfiremitigationplans/>.

For 2021, the WSD amended its review process such that it will no longer issue conditional approvals. Instead, where the WSD found critical issues with 2021 submissions, the WSD issued a Revision Notice requiring the electrical corporation to remedy such issues prior to completion of the 2021 WMP Update evaluation. Upon receipt of the electrical corporation's response to the Revision Notice, the WSD determined whether the response was sufficient to warrant approval of the WMP Update, or the response was deemed insufficient such that denial of the WMP Update was warranted.

The WSD evaluated 2021 WMP Updates according to the following factors:

- Completeness: The WMP Update is complete and comprehensively responds to the WMP statutory requirements and WMP Guidelines.
- Technical feasibility and effectiveness: Initiatives proposed in the WMP Update are technically feasible and are effective in addressing the risks that exist in the electrical corporation's service territory.
- Resource use efficiency: Initiatives are an efficient use of resources and focus on achieving the greatest risk reduction at the lowest cost.
- Year-over-year progress: The electrical corporation has demonstrated sufficient progress on objectives and program targets reported in the prior annual WMP.
- Forward-looking growth: The electrical corporation demonstrates a clear action plan to continue reducing utility-related wildfires and the scale, scope, and frequency of PSPS events. In addition, the electrical corporation is sufficiently focused on long-term strategies to build the overall maturity of its wildfire mitigation capabilities while reducing reliance on shorter-term strategies such as PSPS and vegetation management.

4. Wildfire Safety Advisory Board Input

The WSAB provided recommendations on the WMP Updates of PG&E, SCE, and SDG&E on April 16, 2021. The WSAB provided recommendations on the WMP Updates of PacifiCorp, BVES, and Liberty Utilities on May 13, 2021. The WSD considered the WSAB's recommendations, and the attached Action Statement incorporates the WSAB's input throughout.

5. Public and Stakeholder Comment

The following individuals and organizations submitted comments by March 29, 2021, and reply comments by April 13, 2021, on SDG&E's WMP Update:

- Acton Town Council
- Public Advocates Office at the California Public Utilities Commission (Cal Advocates)
- Green Power Institute (GPI)
- Mussey Grade Road Alliance (MGRA)
- Protect Our Communities Foundation (PCF)
- Small Business Utility Advocates (SBUA)
- The Utility Reform Network (TURN)
- Other members of the public

A summary of comments incorporated into the WSD's disposition of SDG&E's WMP Update can be found in the attached Action Statement.

6. Discussion

The Commission has reviewed the WSD's evaluation of SDG&E's 2021 WMP Update, the Action Statement issued by the WSD pursuant to Pub. Util. Code Section 8386.3, the recommendations of the WSAB, stakeholder comments served on the R.18-10-007 service list, and other public input. The Commission ratifies the WSD's action approving SDG&E's 2021 WMP Update.

The attached Action Statement discusses in detail SDG&E's 2021 WMP Update and provides the WSD's analysis. In particular, the WSD focuses its analysis on progress over the past year, key areas for improvement SDG&E must focus on in the coming year (including ongoing reporting requirements), and additional issues where progress is needed to improve SDG&E's maturity over time.

6.1. Requirements of Pub. Util. Code Section 8386(c)

Below is a summary of where SDG&E has met each requirement pursuant to Pub. Util. Code Section 8386(c). The Commission finds that SDG&E's 2021 WMP

Update satisfies the requirements of Pub. Util. Code Section 8386(c). Discussion of how SDG&E has met the statutory guidelines is included in the Action Statement.

Requirement	Requirement status in WMP Update	Reference to where in WMP Update requirement is met
1. An accounting of the responsibilities of the responsible person(s) executing the plan	Met fully	Section 1, pages 1-2
2. The objectives of the plan	Met fully	Section 5.2, pages 110-114
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	Met fully	Section 7.3, pages 157-348
4. A description of the metrics the electrical corporation plans to use to evaluate the WMP's performance and the assumptions that underlie the use of those metrics	Met fully	Section 5.3, esp. Table 5-2 "List and Description of Program Targets, Last 5 Years," pages 115-121
5. A discussion of how the application of previously identified metrics to previous plan performances has informed the WMP	Met fully	Section 4.1, pages 10-21; Section 5.3, Table 5-2, page 115

6. 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, health and communication infrastructure, customers with access and functional needs, and those with financial concerns.	Met fully	Section 7.3.6.1.1 "Recloser protocols," pages 289-290; Section 8.2 "Protocols on Public Safety Power Shutoff," pages 355-366
7. 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 PSPS for a given event.	Met fully	Section 7.3.10.1.1 "PSPS communication practices," pages 319-342
8. Plans for vegetation management	Met fully	Section 7.3.5, pages 263-264
9. Plans for inspections of the electrical corporation's electrical infrastructure	Met fully	Section 7.3.4, pages 231-262
10. PSPS protocols associated with the electrical corporation's transmission infrastructure, for instances when the PSPS may impact customers who, or entities	Met fully	Section 8.2, pages 355-366

that, are dependent upon the infrastructure		
11. 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 Safety Model Assessment Proceeding (SMAP) and Risk Assessment Mitigation Phase (RAMP) filings	Met but areas for improvement identified	Unprioritized list of wildfire risks and risk drivers can be found in Section 7.3.b "Detailed Information on Mitigation Initiatives by Category and Activity," pages 158-175 (in particular see "Risk to be Mitigated" column in Table 7-1 "Summary of Models Used to Evaluate SDG&E's Initiatives" p. 160-175); also Table 7.1 "Key recent and projected drivers of risk events"
12. A description of how the WMP accounts for the wildfire risk identified in the electrical corporation's RAMP filing	Met fully	Section 4.2 "Understanding Major Trends Impacting Ignition Probability and Wildfire Consequence," pages 22-43; Section 7.1

		"Wildfire Mitigation Strategy," pages 138-153
13. 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	Met fully	Section 5.2, pages 110-114
14. 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	Met fully	Section 7.3.3.16, pages 215-217 (in particular "Progress on initiative," p. 217)
15. 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	Met but areas for improvement identified	A description of the training of the service restoration workforce can be found in Section 7.3.9.1, pages 313-315 and Section 7.3.9.5, pages 326-328

<p>16. 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</p>	<p>Met fully</p>	<p>Section 4.2.1 "Service Territory Fire-Threat Evaluation and Ignition Risk Trends," p. 41</p>
<p>17. 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</p>	<p>Met fully</p>	<p>Section 4.2A, pages 22-24</p>
<p>18. 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:</p> <p>(A) Plans to prepare for, and to restore service after, a wildfire, including workforce mobilization and prepositioning equipment and employees</p> <p>(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</p>	<p>Met fully</p>	<p>Section 7.3.9.4, pages 325-326</p>

based on the United States Census data.		
19. A statement of how the electrical corporation will restore service after a wildfire.	Met fully	Section 8.2 "Protocols on Public Safety Power Shutoff," page 364; mutual assistance program description in Section 7.3.9.5 "Preparedness and planning for service restoration," pages 326-328
20. 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 utility representatives, and emergency communications	Met fully	Section 7.3.9.3, pages 320-325
21. 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	Met fully	Section 7.2 Part A, pages 154-155; Section 7.2 Part B, page 155; Section 7.3.4.13, pages 260-261; Section

<p>(B) Identify any deficiencies in the plan or the plan's implementation and correct those deficiencies</p> <p>(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</p>		<p>7.3.5.13, pages 279-280</p>
<p>22. Any other information that the Wildfire Safety Division may require</p>	<p>Met fully</p>	<p>Via various phone calls and written data requests (February 9 through April 1, 2021)</p>

6.2. Areas of Significant Progress

In the attached Action Statement, the WSD highlights areas of significant progress over the past year and areas where the electrical corporation has matured its mitigation strategies. Examples of SDG&E's progress are set forth below. The Commission has reviewed the WSD's evaluation of SDG&E's progress over the past year and ratifies the WSD's findings that SDG&E's progress is sufficient to warrant approval.

- Overall, SDG&E is evaluating the appropriate wildfire mitigation initiatives and demonstrating innovative approaches to reducing wildfire risk.
- SDG&E recognizes PSPS as a risk and is refining how it is integrated into its overall risk assessment.
- SDG&E has continued developing its Wildfire Risk Reduction Model (WRRM) and WRRM-Ops model to assess its wildfire risk from a grid asset perspective. The utility has developed a new model, the Wildfire Next Generation System (WiNGS), which provides the additional capability of analyzing circuit segments for risk (wildfire and PSPS), as

well as calculating risk-spend efficiency (RSE) estimates. The utility expects to use WiNGs to help prioritize grid hardening mitigations.

- SDG&E has advanced from traditional hardening to undergrounding and covered conductor in the high fire threat district (HFTD). The utility states that the hardening of a full circuit segment using covered conductor or undergrounding may lead to reducing or eliminating PSPS events in the treated area.
- SDG&E reported twice as many initiative RSE estimates this year. The utility also further developed its risk-quantification methodology and included PSPS impacts in select RSE estimates.

6.3. Key Areas for Improvement and Additional Issues

The WSD reviewed SDG&E's 2021 WMP Update across ten categories of mitigation initiatives, including: (1) risk assessment and mapping, (2) situational awareness and forecasting, (3) grid design and system hardening, (4) asset management and inspections, (5) vegetation management and inspections, (6) grid operations and protocols, (7) data governance, (8) resource allocation methodology, (9) emergency planning and preparedness, and (10) stakeholder cooperation and community engagement. In addition, in a change from 2020, the WSD evaluated the utility's progress on reducing the scale, scope, and frequency of PSPS events in a separate section in recognition that PSPS is not a preferred mitigation measure because it introduces significant risk to customers and should be used as a measure of last resort.¹¹

The WSD identified areas for improvement for SDG&E over the next year (set forth below): key areas and additional issues. Key areas for improvement are areas where the WSD finds that an electrical corporation must focus attention to achieve the greatest reduction in utility-related wildfire risk. Additional issues are areas where the WSD would also like to see improvement over time.

The WSD expects SDG&E to take action to address these key areas and report on progress made over the year in a Progress Report due by 5:00 p.m. on

¹¹ The Commission recognizes that prevailing weather conditions primarily impact the need for PSPS and has found that Pub. Util. Code sections 451 and 399.2(a) authorize the utilities to shut off power in order to protect public safety, as a measure of last resort. (Resolution ESRB-8; Phase 1 Overarching PSPS Guidelines contained in D.19-05-042.) The decision to shut off power may be reviewed by the Commission pursuant to its broad jurisdiction over public safety and utility operations. (ESRB-8.)

November 1, 2021, and in its 2022 WMP Update. The WSD will closely monitor progress in each of these areas over the coming year.

Utility- #	Issue title	Issue description	Remedies required and alternative timeline if applicable
SDGE-21-01	Inadequate transparency in accounting for ignition sources in risk modeling and mitigation selection	SDG&E identifies vehicle contact and balloon contact as the first and second highest ignition risks but does not explain how that affects its risk models or mitigation selection.	SDG&E must fully explain: 1. How third-party ignition sources feed into SDG&E's risk models; 2. How ignition sources impact SDG&E's mitigation selection process, including: a. How SDG&E prioritizes ignition sources; b. If SDG&E treats third-party ignition sources that are not under SDG&E's direct control differently than other ignition sources, and if so, how; c. How SDG&E targets its mitigations efforts to reduce ignitions that are more likely to result in catastrophic wildfire conditions.
SDGE-21-02	Lack of consistency in approach to wildfire risk modeling across utilities	The utilities do not have a consistent approach to wildfire risk modeling. For example, in their wildfire risk models, utilities use different types of data, use their individual data sets in different ways, and use different third-party vendors. The WSD recognizes that the utilities have differing service territory characteristics, differing data availability, and are at different stages in developing their wildfire risk models. However, the utilities face similar enough circumstances that there should be some level of consistency in statewide	The utilities ¹² must collaborate through a working group facilitated by Energy Safety ¹³ to develop a more consistent statewide approach to wildfire risk modeling. After the WSD completes its evaluation of all the utilities' 2021 WMP Updates, it will provide additional detail on the specifics of this working group. A working group to address wildfire risk modeling will allow for: 1. Collaboration among the utilities; 2. Stakeholder and academic expert input; and 3. Increased transparency.
<p>¹² Here "utilities" refers to SDG&E and Pacific Gas and Electric Company (PG&E), Southern California Edison Company (SCE), PacificCorp, Bear Valley Electric Service, Inc. (BVES), and Liberty Utilities; although this may not be the case every time "utilities" is used through the document.</p> <p>¹³ The WSD is transitioning to the Office of Energy Infrastructure Safety (Energy Safety) on July 1, 2021.</p>			

		approaches to wildfire risk modeling.	
SDGE-21-03	Limited evidence to support the effectiveness of covered conductor	The rationale to support the selection of covered conductor as a preferred initiative to mitigate wildfire risk lacks consistency among the utilities, leading some utilities to potentially expedite covered conductor deployment without first demonstrating a full understanding of its long-term risk reduction and cost-effectiveness. The utilities' current covered conductor pilot efforts are limited in scope ¹⁴ and therefore fail to provide a full basis for understanding how covered conductor will perform in the field. Additionally, utilities justify covered conductor installation by citing reduced PSPS risk but fail to provide adequate comparison to other	The utilities ¹⁵ must coordinate to develop a consistent approach to evaluating the long-term risk reduction and cost-effectiveness of covered conductor deployment, including: <ol style="list-style-type: none"> 1. The effectiveness of covered conductor in the field in comparison to alternative initiatives. 2. How covered conductor installation compares to other initiatives in its potential to reduce PSPS risk.
¹⁴ Limited in terms of mileage installed, time elapsed since initial installation, or both. For example, SDG&E's pilot consisted of installing 1.9 miles of covered conductor, which has only been in place for one year.			
¹⁵ Here "utilities" refers to SDG&E and Pacific Gas and Electric Company (PG&E), Southern California Edison Company (SCE), PacificCorp, Bear Valley Electric Service, Inc. (BVES), and Liberty Utilities; although this may not be the case every time "utilities" is used through the document.			
¹⁶ A note about the numbered conditions referenced in this document: "RCP Action-SDGE-[#]" here refers to one of the actions required by the WSD in its evaluation of SDG&E's Remedial Compliance Plan of 2020, issued Dec. 30, 2020. The WSD issued four such orders (RCP Action-SDGE-1 through RCP Action-SDGE-4). There are two other related sets of references in this document: "SDGE-[#]" refers to one of the actions required by the WSD in its evaluation of SDG&E's 2020 WMP issued June 11, 2020 (SDGE-1 through SDGE-16). "QR Action-SDGE-[#]" refers to one of the actions required by the WSD in its evaluation of SDG&E's first quarterly report issued Jan. 8, 2021 (QR Action-SDGE-1 through Action-SDGE-49). Additionally, there are conditions that may be referenced by "Guidance-[#]", which refer to the requirements made of PG&E, SCE, SDG&E, Bear Valley Electric Service, Liberty Utilities, and PacificCorp, addressing key areas of weakness across all six WMPs in Resolution WSD-002 "Guidance Resolution on 2020 Wildfire Mitigation Plans" issued June 19, 2020 (Guidance-1 through Guidance-12).			
¹⁷ Wildfire Safety Division Evaluation of San Diego Gas and Electric's Remedial Compliance Plan, December 30, 2020, p. 9.			
¹⁸ SDG&E 2021 WMP Update, p. 70.			

		<p>SCE presented the “joint, unified” plan to the WSD on February 18, 2021. While it was apparent the three large utilities had discussed a unified approach, each utility presented differing analyses that would be performed to measure the effectiveness of enhanced clearances. This presentation’s content was not included in the February 26, 2021, “Supplemental Filing Addressing 2020 Wildfire Mitigation Plan Quarterly Report Insufficiencies.”</p> <p>The WSD acknowledges the complexity of this issue; any study performed assessing the effectiveness of enhanced clearances will take years of data collection and rigorous analysis.</p>	<p>3. Incorporate biotic and abiotic factors¹⁹ into the determination of outage and ignition risk caused by vegetation contact.</p> <p>4. Assess the effectiveness of enhanced clearances.</p> <p>In preparation for this study and the eventual analysis, SDG&E must collect the relevant data; the required data are currently defined by the WSD Geographic Information System (GIS Data Reporting Standard for California Electrical Corporations - V2). Error! Reference source not found.2 of the SDG&E Action Statement outlines the feature classes which the WSD believes will be most relevant to the study. Additional requirements related to this study may be included in the Action Statements for PG&E and SCE’s 2021 WMP Updates. The WSD will also be updating the GIS Reporting Standards in 2021, which may include additional data attributes for vegetation-related risk events.</p>
SDGE-21-05	Incomplete identification of vegetation species and record keeping	<p>SDG&E reports that it targets trees based on characteristics of the species. SDG&E targets “eucalyptus, palm, oak, pine, and sycamore.”²⁰ However, these are not tree species, but tree genera. SDG&E needs to ensure proper identification of trees to the species level.</p>	<p>SDG&E must:</p> <ol style="list-style-type: none"> 1. Use scientific names in its reporting (as opposed to common names). This change will be reflected in the upcoming updates to the WSD GIS Reporting Standard. 2. Add genus and species designation input capabilities into its systems which track vegetation and vegetation-caused outage reports). 3. Vegetation Causality Plan of a Cause of a Vegetation-Caused Outage or ignition²² in the Quarterly Data Reports (QDRs) (in these cases, an

¹⁹ Biotic factors include all living things (e.g., an animal or plant) that influence or affect an ecosystem and the organisms in it; abiotic factors include all nonliving conditions or things (e.g., climate or habitat) that influence or affect an ecosystem and the organisms in it.

²⁰ SDG&E 2021 WMP Update, p. 263.

²¹ WSD GIS Data Reporting Standard Version 2, Transmission & Distribution Vegetation (Feature Class), Section 3.4.5 & Distribution Vegetation (Feature Class), Section 3.4.7.

²² WSD GIS Data Reporting Standard Version 2, Ignition (Feature Class), Section 3.4.3.

			<p>unknown “sp.” designation is not acceptable).</p> <p>4. If the tree’s species designation is unknown (i.e., if the inspector knows the tree as “Quercus” but is unsure whether the tree is, for example, <i>Quercus kelloggii</i>, <i>Quercus lobata</i>, or <i>Quercus agrifolia</i>), it must be recorded as such. Instead of simply “Quercus,” use “Quercus sp.” If referencing multiple species within a genus use “spp.” (e.g., <i>Quercus spp.</i>).²³</p> <p>5. Teach tree species identification skills in its VM personnel training programs, both in initial and continuing education.</p> <p>6. Encourage all VM personnel identify trees to species in all VM activities and reporting, where possible.</p>
SDGE-21-06	Lack of quantitative analysis to identify “at-risk” species	<p>Mussey Grade Road Alliance (MGRA) analyzed SDG&E’s vegetation-caused outage data to determine the outages per 1000 trees per year by tree genus.²⁴ MGRA found that palm, cypress, and century plant constituted the highest risk with >1 outage per 1000 trees per year. These data are inconsistent with SDG&E’s statement that it “targeted species identified as a higher risk due to growth potential, failure characteristics and relative outage frequency. These species include eucalyptus, sycamore, oak, pine, and palm.”²⁵ Only palms are common to both lists.</p>	<p>In Section 7.3.5.15 (or equivalent) of its 2022 WMP Update, SDG&E must:</p> <ol style="list-style-type: none"> 1. Describe the methodologies for determining what species it considers “at-risk.” 2. Explain in complete detail why discrepancies exist between the genera with the highest number of outages per 1000 trees per year and SDG&E’s “targeted species identified as a higher risk due to growth potential, failure characteristics and relative outage frequency.”²⁹ 3. Define quantitative threshold values (whether a standard value, a range of values, or an example of a typical value) for the criteria used to define a tree as “at-risk.”

²³ Jenks, Matthew A. (undated, from 2012 archived copy), Plant Nomenclature, Department of Horticulture and Landscape Architecture, Purdue University, accessed May 16, 2021, <https://archive.ph/20121211140110/http://www.hort.purdue.edu/hort/courses/hort217/Nomenclature/description.htm>.

²⁴ Mussey Grade Road Alliance’s Comments on 2021 Wildfire Mitigation Plans of PG&E, SCE, and SDG&E March 29, 2021, p. 40

²⁵ SDG&E 2021 WMP Update, p. 278.

²⁹ SDG&E’s 2021 WMP Update, p. 278.

		<p>Additionally, QR Action-SDGE-46 (Class B). from Jan. 8, 2021,²⁶ required SDG&E to “define quantitative threshold values [...] for the criteria used to define a tree as ‘at-risk.’”²⁷ SDG&E responded to this requirement stating, “evaluation is based more on qualitative factors rather than quantitative.”²⁸ SDG&E must use quantitative data to inform its “at-risk” species targeting; purely qualitative evaluation of a tree’s risk does not adequately address the quantitative risk of ignition or outage.</p>	
SDGE-21-07	Need for quantified vegetation management (VM) compliance targets	<p>In Table 12, SDG&E only defines quantitative targets for four of 20 VM initiatives. The WSD is statutorily required to audit SDG&E when a “substantial portion” of SDG&E’s VM work is complete,³⁰ without quantifiable targets in the WMP and subsequent reporting on those targets in the Quarterly Data Report (QDR) and Quarterly Initiative Update (QIU). the WSD cannot fully realize its statutory obligation.</p>	SDG&E must define quantitative targets for all VM initiatives in Table 12. If quantitative targets are not applicable to an initiative, SDG&E must fully justify this, define goals within that initiative, and include a timeline in which it expects to achieve those goals.
²⁶ See previous footnote on references to RCP Action-SDGE-[#].			
²⁷ Wildfire Safety Division Evaluation of San Diego Gas & Electric Company’s First Quarterly Report, January 8, 2021, p. 32			
²⁸ San Diego Gas & Electric Company’s Supplemental Filing Addressing 2020 Wildfire Mitigation Plan Quarterly Report Insufficiencies,” February 26, 2021, p. 75			
³⁰ Public Utilities Code Section 8386.3(c)(5)(A).			
	Non-remote-controlled switches	SDG&E experienced several incidents in which non-communicative Supervisory Control	SDG&E must: 1. Discuss its plans to take system-level proactive steps to validate that

		and Data Acquisition (SCADA) switches caused customers to be de-energized without notice. ^{31,32} SDG&E indicates that it has no plans to alter its existing practices to ensure this issue does not continue in the future. ³³ In its WMP Update, SDG&E does not discuss any plans to take system-level proactive steps to validate that existing SCADA switches remain fully functional ³⁴ or to ensure that newly installed SCADA switches are fully functional.	existing SCADA switches remain fully functional. 2. Discuss its plans to ensure that newly installed SCADA switches are fully functional. 3. Describe the steps it is taking to increase and improve inspections and testing of SCADA switches.
SDGE-21-09	Inadequate transparency associated with SDG&E's decision-making process	SDG&E does not clearly explain its initiative selection process or how RSE estimates impact the process. For example, SDG&E does not quantitatively justify the selection of undergrounding compared to other mitigation alternatives. RSE estimates provide a pathway to assess the relative risk reduction benefit provided by mitigation initiatives and inform the initiative selection process.	SDG&E must: 1. Elaborate on its decision-making process to include a thorough overview of the initiative selection procedure. The overview must show the rankings of the relative decision-making factors (i.e., planning and execution lead times, resource constraints, etc.) and pinpoint where quantifiable risk reductions and RSE estimates are considered in the initiative selection process. The WSD recommends a cascading, dynamic "if-then" style flowchart to effectively demonstrate this prioritization process and satisfy this requirement. 2. Using the newly developed decision-making overview, demonstrate that its undergrounding projects are a reasonable and effective use of resources to achieve risk reduction compared to other mitigation alternatives.

³¹ For more information on PSPS-related notification requirements, see D.19-05-042, Decision Adopting De-Energization (Public Safety Power Shut-Off) Guidelines (Phase 1 Guidelines), issued June 4, 2019, p. 86-87 (accessed May 19, 2021): <https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M296/K598/296598822.PDF>.

³² SDG&E November 26-December 9, 2020, post-event report, p. 38, and SDG&E December 23-24, 2020, post event report, p. 12: each state "These missed notifications may be attributed to non-communicative SCADA switches, which require SDG&E's Electric Distribution Operations to de-energize upstream of the intended sectionalizing device."

³³ SDG&E's March 4, 2021, Response to Cal Advocates Data Request SDGE-2021WMP-05, Question 11.

³⁴ Here "functional" means communicative, operational, and remotely operable.

SDGE-21-10	Insufficient detail regarding prioritization of HFTD in undergrounding and covered conductor mitigation efforts	Stakeholders expressed concerns that SDG&E is not adequately targeting its covered conductor installations and undergrounding efforts to high-risk circuits in its HFTD areas. ³⁵ It can be more cost-effective to bundle projects in proximate geographic areas ³⁶ than to perform mitigation initiatives strictly from the highest priority circuit segment to the lowest. Additionally, a strictly hierarchical strategy would not necessarily reduce PSPS events in the near term. It is therefore <i>theoretically</i> possible that a strategy of directing 100% of mitigation efforts to HFTD areas may not be the most reasonable and cost-effective strategy for reducing wildfire risk and PSPS events. However, SDG&E does not provide sufficient detail regarding its strategy for determining workflow to fully assess if SDG&E is sufficiently prioritizing HFTD areas in its undergrounding and covered conductor	SDG&E must fully demonstrate that its undergrounding and covered conductor mitigation efforts are focused on efficiently reducing wildfire risk and PSPS events, including a description of how SDG&E determines the order in which circuit segments are scheduled for mitigation.
³⁵ Cal Advocates' Comments on SCE and SDG&E WMP Updates, pp. 16-17.	³⁶ SDG&E states: "...projects are bundled based on geographic proximity for construction efficiency and to reduce outages when required" (2021 WMP Update, p. 206).	SDG&E must effectively demonstrate that its mitigation efforts are focused on efficiently reducing wildfire risk and PSPS events.	The utilities ⁴⁰ must collaborate through a working group facilitated by Energy Safety ⁴¹ to develop a
SDGE-21-11	RSE values vary across utilities	The WSD is concerned by the stark variances in RSE estimates,	The utilities ⁴⁰ must collaborate through a working group facilitated by Energy Safety ⁴¹ to develop a

⁴⁰ Here "utilities" refers to SDG&E, Pacific Gas and Electric Company (PG&E), and Southern California Edison Company (SCE); although this may not be the case every time "utilities" is used through the document.

⁴¹ The WSD is transitioning to the Office of Energy Infrastructure Safety (Energy Safety) on July 1, 2021.

		<p>sometimes on several orders of magnitude, for the same initiatives calculated by different utilities. For example, PGE's RSE for covered conductor installation was 4.08,³⁷ SDGE's RSE was 76.73,³⁸ and SCE's RSE was 4,192.³⁹ These drastic differences reveal that there are significant discrepancies between the utilities' inputs and assumptions, which further support the need for exploration and alignment of these calculations.</p>	<p>more standardized approach to the inputs and assumptions used for RSE calculations. After the WSD completes its evaluation of the 2021 WMP Updates, it will provide additional detail on the specifics of this working group.</p> <p>This working group will focus on addressing the inconsistencies between the inputs and assumptions used by the utilities for their RSE calculations, which will allow for :</p> <ol style="list-style-type: none"> 1. Collaboration among the utilities; 2. Stakeholder and academic expert input; and 3. Increased transparency.
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6.4. Wildfire Mitigation Costs

Pursuant to statute, an electrical corporation's costs associated with wildfire mitigation activities are not approved as part of its WMP; rather, costs are evaluated in each electrical corporation's General Rate Case or other application for rate recovery.

In SDG&E's 2021 WMP Update, actual 2020 mitigation costs were higher than projected costs for 2020 (the 2020 projected costs were \$452 million; 2020 actual costs were \$569 million). In the 2021 WMP Update, projected 2021-2022 costs were higher than in the 2020 WMP (the 2020 projected costs for 2021-2022 were \$897 million; the 2021 projected costs for 2021-2022 were \$1,316 million). For example, SDG&E's 2021 wildfire mitigation costs projected in its 2021 WMP

³⁷ Value from PG&E's Errata (dated March 17, 2021, accessed May 19, 2021): https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/2021-Wildfire-Safety-Plan-Errata.pdf.

³⁸ Value from Table 12 of SDGE's 2021 WMP Update submissions under the "Estimated RSE for HFTD Tier 3" column for "Covered Conductor Installation."

³⁹ Value from Table 12 of SCE's 2021 WMP Update submissions under the "Estimated RSE for HFTD Tier 3" column for "Covered Conductor Installation."

Update increased to \$646 million from the \$456 million projected in its 2020 WMP, a 42% increase.

The WSD analyzed these wildfire mitigation cost increases and made the following findings:

- The territory covered by the costs did not change: no additional territory was included (e.g., no territory was reclassified as HFTD).
- The higher costs relate to costs from more investment in the existing work area (e.g., engineering and covered conductors).⁴²

The Commission will evaluate wildfire mitigation costs in SDG&E's General Rate Case.

7. Maturity Evaluation

In 2020, WSD introduced a new Utility Wildfire Mitigation Maturity Model (the Maturity Model) to establish a baseline understanding of an electrical corporation's current and projected capabilities and assess whether each electrical corporation is progressing sufficiently to improve its ability to mitigate wildfire risk effectively. The Maturity Model also serves as an objective means of comparing measurements of progress across electrical corporations and provides a framework for driving progress in wildfire risk mitigation over time. To identify an electrical corporation's progress within the Maturity Model, the WSD required each electrical corporation to complete a survey in which it answered questions addressing its maturity regarding 52 wildfire mitigation-related capabilities at the time of submission and its projections of its maturity at the end of the three-year plan horizon. The 52 capabilities are mapped to the same ten categories identified for mitigation initiatives.

The Maturity Model will continue to evolve over time to reflect best practices and lessons learned. In 2021 the maturity model was updated to clarify definitions while remaining consistent with the 2020 model to enable year-over-year progress tracking. It is essential that the maturity levels are understood within the context of the qualitative detail supporting each level. The model results require context and should not be interpreted as the final word on an electrical corporation's wildfire mitigation capabilities without an understanding of the scoring process described in Action Statement Appendix 11.1. As such, the

⁴² This finding is supported by the utility's response to data request WSD-SDGE-01 Question 1.

final Maturity Model outputs should be viewed as levels or thresholds – they are not absolute scores.

The Commission ratifies the WSD’s findings that SDG&E has made sufficient progress toward maturity in the past year. The Commission and the WSD expect SDG&E to continue to improve its maturity in all areas in order to reduce utility-related wildfire risk.

Summary of SDG&E Maturity Evaluation

- The utility has been and remains generally more advanced than its peer utilities as measured by the Utility Maturity Survey.
- For most questions (59%) it rated itself as starting at the top of the maturity scale in 2020 and remaining there through 2023. For more than 3/4 of the questions (77%) it rated itself at either the next-best or best possible maturity level for 2021, remaining there through 2023. As such SDG&E does not have much room for growth on the maturity scale.
- The “asset inspection cycle” competency area was the utility’s weakest in its 2021 Maturity Survey. Nine of the utility’s 23 low-maturity responses were in the “asset management and inspections” competency. For seven of these, SDG&E reports that it does not expect an increase in its maturity level between 2021 and the start of 2023.

SDG&E’s maturity evaluation is further detailed in the attached Action Statement (see Action Statement Appendix 11.1 for a summary of SDG&E’s 2021 Maturity Survey output).

8. Next Steps

In its Action Statement, the WSD sets forth the next steps SDG&E must take following the WSD’s approval of its 2021 WMP Update. This includes a process for significantly modifying (i.e., reducing, increasing, or ending) mitigation measures in the WMP.

Upon ratification of this resolution, the WSD discontinues the ongoing Quarterly Report established in the 2020 WMP, except for the Quarterly Data Reports pursuant to Guidance-10 from Resolution WSD-002.

Upon ratification of this resolution, SDG&E is required to provide a Progress Report by 5:00 p.m. on November 1, 2021, including the following:

1. Progress on remedies associated with key areas for improvement listed in section 6.3 of this Resolution and section 1.3 of the attached Action Statement. Further details on remedies can be found in the Action Statement.
2. Additional requirements explicitly set by the WSD, including additional items that require ongoing progress updates, pursuant to future guidance.

Upon ratification of this resolution, the WSD is granted authority to change reporting requirements and process through a public notice.

The Commission expects the electrical corporation to adhere to all ongoing requirements set forth in the Action Statement.

9. Consultation with CAL FIRE

Pub. Util. Code § 8386.3(a) requires the WSD to consult with CAL FIRE in reviewing electrical corporations' 2021 WMP Updates. The Commission and CAL FIRE have a memorandum of understanding in place to facilitate this consultation (Pub. Util. Code § 8386.5). The Commission and the WSD have met these requirements, but this Resolution does not purport to speak for CAL FIRE.

10. Office of Energy Infrastructure Safety

Pursuant to Public Utilities Code Section 326(b), on July 1, 2021, the Wildfire Safety Division transitioned from the Commission into the Office of Energy Infrastructure Safety (Energy Safety) under the California Natural Resources Agency. Energy Safety **"is the successor to" and "is vested with all of the duties, powers, and responsibilities of the Wildfire Safety Division,"**⁴³ including, but not limited to, jurisdiction for evaluating and approving or denying electrical corporations' WMPs and evaluating compliance with regulations related to the WMPs. The Commission and the newly formed Energy Safety will adhere to all statutory requirements pertaining to the WMP process.

11. Impact of COVID-19 Pandemic

On March 19, 2020, California Governor Gavin Newsom signed Executive Order N-33-20 requiring Californians to stay at home to combat the spread of the COVID-19 virus. Specifically, Governor Newsom required Californians to heed

⁴³ Government Code Section 15475.

the order of the California State Public Health Officer and the Director of the California Department of Public Health that all individuals living in California stay home or at their place of residence, except as needed to maintain continuity of operation of the federal critical infrastructure sectors in order to address the public health emergency presented by the COVID-19 disease (stay-at-home order).⁴⁴

As articulated in the March 27, 2020, joint letters⁴⁵ of the WSD, CAL FIRE, and the California Governor's Office of Emergency Services regarding essential wildfire and PSPS mitigation work during COVID-19 sent to each electrical corporation, electrical corporations are expected to continue to prioritize essential safety work.

Since issuance of this letter, the WSD has expected the electrical corporations to make every effort to keep WMP implementation progress on track, including necessary coordination with local jurisdictions. Such effort is essential to ensuring that electrical corporations are prepared for the upcoming and subsequent wildfire seasons, while complying with COVID-19 restrictions requiring residents to shelter-in-place, practice social distancing, and comply with other measures that California's public health officials may recommend or that Governor Newsom or other officials may require in response to the COVID-19 pandemic.

Throughout 2021, the WSD expects the electrical corporations to continue to make meaningful progress on wildfire mitigation goals and efforts to reduce the scale, scope, and frequency of PSPS events while continuing to abide by COVID-19 public health guidelines.

12. Conclusion

- SDG&E's 2021 Wildfire Mitigation Plan Update contains all of the elements required by AB 1054, Pub. Util. Code Section 8386(c) and all elements required by the WMP Guidelines.

⁴⁴ Executive Order N-30-20, see <http://covid19.ca.gov/img/Executive-Order-N-30-20.pdf>.

⁴⁵ Letters to each electrical corporation are found at [https://www.cpuc.ca.gov/covid/under the heading "Other CPUC Actions,"](https://www.cpuc.ca.gov/covid/under%20the%20heading%20%22Other%20CPUC%20Actions%22%2C%20March%2027%2C%202020%3A%20Joint%20Letters%20to%20IOUs%20re%3A%20Essential%20Wildfire%20and%20PSPS%20Mitigation%20Work) March 27, 2020: Joint Letters to IOUs re: Essential Wildfire and PSPS Mitigation Work.

- The Commission ratifies the WSD’s Action Statement approving SDG&E’s 2021 WMP Update subject to any requirements contained therein.

13. Comments

Pub. Util. Code § 311(g)(1) provides that resolutions must be served to 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 R.18-10-007 in order to submit comments. Comments were due on July 1, 2021, 20 days from the mailing of the draft of this Resolution. Reply comments were not accepted.

On June 10, 2021, this draft Resolution was served on the service list of R.18-10-007 and posted on the Commission’s website, www.cpuc.ca.gov/wildfiremitigationplans.

On July 1, 2021, SDG&E, Protect Our Communities Foundation (PCF), and Green Power Institute (GPI) timely submitted comments on the draft SDG&E Resolution and Action Statement.

SDG&E indicated support for many of the WSD’s comments on its WMP Update. It acknowledged that it would continue to provide more clarity on how it targets its mitigation efforts to focus on ignition drivers that are within the utility’s control, while also expecting benefits from these efforts in reducing ignitions from sources outside the utility’s control (e.g., Mylar balloons are less likely to be caught on wires if they are spread out more widely). Regarding the assessment of the efficacy of covered conductor, SDG&E points out that it is difficult to validate assumptions without broader implementation and gathering of data over multiple years.

The utility noted some issues it had with the WSD’s comments related to VM, namely that it does not see potential for wildfire risk reduction from identifying trees to species level, while acknowledging that there might be such a benefit to identifying the genus *Pinus* to species level. The WSD is interested in SDG&E’s suggestion of “developing a list of trees and vegetation that will be identified by species through a working group or joint study with the other utilities to address concerns regarding consistency.” However, this does not negate the ongoing necessity for more granular vegetation data. Regarding the utility’s comment on the new burden created by identifying trees to species level, SDGE-21-05 includes provisions for documenting a tree of unknown species. Nevertheless,

the WSD has altered the language of SDGE-21-05 to lessen the burden of record keeping on the utility. The altered language emphasizes that tree identification to the species level is required, at a minimum, for vegetation-caused outages and ignitions.

Additionally, SDG&E notes that further quantitative analysis of “at-risk” species may have limited value. The WSD agrees that it is necessary to evaluate hazardous vegetation using both qualitative and quantitative attributes. The WSD also believes that SDG&E could identify quantitative threshold values to improve its targeting of “at-risk” species.

SDG&E further takes issue with the request for additional quantitative targets for its VM initiatives. SDG&E notes that it has ten VM initiatives in response to SDGE-21-07,⁴⁶ where the WSD points out that SDG&E has only established quantitative targets for four of 20 VM initiatives. To clarify, “20” refers to the number of VM initiatives in Table 12, not the number of VM initiatives defined by SDG&E in the body of the WMP Update. The WSD acknowledges that not all VM initiatives are well-suited for quantitative targets, as noted in the required remedies.

SDG&E further notes, regarding SDGE-21-08, that only three missed PSPS notifications were related to an inoperable SCADA switch, and it is “already taking the steps identified” in SDGE-21-08. SDG&E adds that it “has existing procedures and has developed enhancements to these procedures to ensure that SCADA devices remain fully functional throughout the year.” The WSD acknowledges that SDG&E is already engaging with this issue proactively and expects more information on its SCADA switch procedures and steps it has taken to ensure SCADA switch functionality in the Progress Report due on November 1, 2021.

SDG&E responds to the new threshold criteria for a change order by providing an alternative set of criteria for consideration. In particular, SDG&E believes that change in the cost of an initiative is less relevant than a change in its scope, and suggests replacing the change criterion “a change that would result in an increase, decrease, or reallocation of more than \$5 million constituting a greater

⁴⁶ The SDG&E draft Resolution and Action Statement uses the numbering convention of SDGE-# (e.g., SDGE-7). In response to a comment from GPI on a different utility’s Resolution and Action Statement, the WSD is changing the numbering convention across all utilities, incorporating the year of the relevant WMP or WMP Update into the number and using two digits for the number (e.g., SDGE-21-07).

than 10% change in spend allocation” to a change where “the scope of a mitigation was purposely increased or decreased greater than 25%.” SDG&E points out that an initiative could change in cost due to “execution variance” without significantly affecting the initiative’s scope. Further, SDG&E points out that an increase in cost that doesn’t affect scope would be evaluated in the utilities’ GRC or other application and shouldn’t be “litigated in a WMP proceeding.” The WSD declines to make any changes at this time; however, after the issuance of all utility Action Statements, we will take all change order-related suggestions into consideration.

In response to issues surfaced by the WSD in Section 5.3 “Grid Design and System Hardening,” in particular regarding the possibility of SDG&E performing hardening activities in already-hardened areas, SDG&E points out that re-hardening may be necessary in some cases. For example, SDG&E may find it needs to replace bare conductors with covered conductors on circuit segments that were recently hardened as part of traditional bare wire hardening efforts as “a necessary component of its scoping strategy.” The WSD acknowledges this potential necessity and in response has modified its language in the remedy for the relevant issue, adding the qualifier “when possible”:

*SDG&E must demonstrate how it is reducing, **when possible**, double-hardening efforts by showing, for example, how it is de-prioritizing or excluding already-hardened circuit segments from future covered conductor replacement projects.*

However, WSD still wants to emphasize that recent hardening efforts made by SDG&E should affect how SDG&E is prioritizing its most at-risk circuits, as recent hardening efforts should have mitigated some wildfire risk and decreased the need to immediately reharden the same circuits.

SDG&E also responds to another issue surfaced by the WSD in Section 5.3: the lack of detail on its initiative selection process, in particular where it results in costly undergrounding projects where other mitigation measures might be more cost-effective and serve more residents and locations. SDG&E responds that its strategy for undergrounding “considers both the risk reduction potential and objectives as well as the RSE values.” The WSD expects to get more details on its initiative selection process in the 2022 WMP Update, as SDG&E needs to fully demonstrate the steps and inputs taken to reach decisions for initiative selection.

PCF agrees with the WSD’s determinations on key areas for improvement but recommends the WSD reject SDG&E’s 2021 WMP Update and instead direct the utility to remedy the identified issues prior to approving its 2021 WMP Update.

The WSD acknowledges but rejects this suggestion. The WSD's position is that the utility's WMP Update has met the requirements for approval.

PCF supports the WSD's required remedies with regard to transparency in accounting for ignition sources in risk modeling and mitigation selection (SDGE-21-01); covered conductor effectiveness and prioritization (SDGE-21-03 and SDGE-21-10); and quantitative analysis in identifying "at-risk" tree species (SDGE-21-06). PCF recommends the WSD revise SDGE-21-06 to require SDG&E to report on its progress in its November 1, 2021, Progress Report, rather than in its 2022 WMP Update, in order for stakeholders and the WSD to monitor whether SDG&E is moving swiftly enough to comply with the remedies. The WSD appreciates PCF's proactive engagement to address remedies; however, SDG&E is already expected to report on all key areas for improvement, including SDGE-21-06, in its November 1, 2021, Progress Report (see Section 6.3).

GPI indicates support for many of the WSD's comments on its WMP Update.

GPI points out that the suggestion to ask utilities to employ verification of risk models came not only from MGRA, but also from GPI, and in response the WSD has included GPI as a second source for this suggestion in Section 3 "Public and Stakeholder Comment," as requested.

In addition to the remedies provided by SDGE-21-02 and other remedies related to improving risk modeling, GPI suggests that the WSD require all utilities to prepare "a transparent and comprehensive model vetting analysis and report similar to that prepared by E3 for PG&E's risk model" as a building block toward creating a standardized risk model. Details about the risk modeling working group called for by SDGE-21-02 will be provided at a future date.

Regarding inspection program reporting, GPI supports the WSD's requirement that SDG&E present each inspection program as a line item, and not aggregate the programs under the "Other" category, and suggests that "Inspections-other" in the non-spatial inspection data table be changed in the WMP Guidelines to include all inspection types (e.g., drone, LiDAR) as separate subcategories. GPI also suggests that SDGE-21-05 regarding "incomplete identification of vegetation species and record keeping" be extended to all utilities.

Additionally, GPI suggests extending RSE verification expectations to all utilities. Specifically, GPI asks that the WSD incorporate RSE verification expectations in the WMP Guidelines.

The WSD appreciates GPI's suggestions.

Findings

1. AB 1054 and Commission Resolution WSD-001 require SDG&E to submit a WMP Update for 2022 that conforms with Pub. Util. Code Section 8386(c) and guidance adopted in Resolution WSD-011.
2. The 2021 WMP Update was reviewed and acted upon with due consideration given to comments received from governmental agencies (including CAL FIRE), the WSAB, members of the public, and all other relevant stakeholders.
3. The 2021 WMP Update was reviewed and acted upon in compliance with all relevant requirements of state law.
4. SDG&E's 2021 WMP Update contains all the elements required by Pub. Util. Code Section 8386(c) and SDG&E has satisfied the requirements of Pub. Util. Code Section 8386(c) and the 2021 WMP Guidelines.

THEREFORE, IT IS ORDERED THAT:

1. Wildfire Safety Division's Action Statement approving San Diego Gas & Electric Company's 2021 Wildfire Mitigation Plan Update is ratified.
2. San Diego Gas & Electric Company shall meet all commitments in its 2021 WMP Update
3. San Diego Gas & Electric Company shall provide a Progress Report by 5:00 p.m. November 1, 2021, or otherwise directed by the Office of Energy Infrastructure Safety.
4. San Diego Gas & Electric Company shall submit any reports previously required to be submitted to Wildfire Safety Division, including Quarterly Data Reports, to the Office of Energy Infrastructure Safety according to forthcoming guidance.
5. San Diego Gas & Electric Company shall submit an update to its Wildfire Mitigation Plan in 2022 according to the forthcoming guidance and schedule issued by the Office of Energy Infrastructure Safety.
6. San Diego Gas & Electric Company shall submit a new comprehensive three-year Wildfire Mitigation Plan in 2023, or as otherwise directed by the Office of Energy Infrastructure Safety.
7. San Diego Gas & Electric Company must adhere to all requirements set forth in the Wildfire Safety Division's Action Statement.
8. Nothing in this Resolution should be construed as approval of the costs associated with San Diego Gas & Electric Company's Wildfire Mitigation Plan mitigation efforts.

9. In accordance with Public Utilities Code Section 8386.4, San Diego Gas & Electric Company may track the costs associated with its Wildfire Mitigation Plan in a memorandum account by category of costs and shall be prepared for Commission review and audit of the accounts at any time.
10. Nothing in this Resolution should be construed as a defense to any enforcement action for a violation of a Commission decision, order, or rule.

This Resolution is effective today.

I certify that the foregoing resolution was duly introduced, passed, and adopted at a conference of the Public Utilities Commission of the State of California held on July 15, 2021, the following Commissioners voting favorably thereon:

/s/ Rachel Peterson
RACHEL PETERSON
Executive Director

MARYBEL BATJER
President
MARTHA GUZMAN ACEVES
CLIFFORD RECHTSCHAFFEN
GENEVIEVE SHIROMA
DARCIE HOUCK
Commissioners

Appendix A – Action Statement

See attached.

Appendix B – Public Utilities Code Section 8386

Public Utilities Code Section 8386⁴⁷

From Public Utilities Code (PUC) Division 4.1. Provisions Applicable to Privately Owned and Publicly Owned Public Utilities [8301 - 8390].

Chapter 6. Wildfire Mitigation [8385 - 8389]

8386.

(a) Each electrical corporation shall 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.

(b) Each electrical corporation shall annually prepare and submit a wildfire mitigation plan to the Wildfire Safety Division for review and approval. In calendar year 2020, and thereafter, the plan shall cover at least a three-year period. The division shall establish a schedule for the submission of subsequent comprehensive wildfire mitigation plans, which may allow for the staggering of compliance periods for each electrical corporation. In its discretion, the division may allow the annual submissions to be updates to the last approved comprehensive wildfire mitigation plan; provided, that each electrical corporation shall submit a comprehensive wildfire mitigation plan at least once every three years.

(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.

⁴⁷ Pub. Util. Code 8386 (accessed May 5, 2021):

https://leginfo.legislature.ca.gov/faces/codes_displaySection.xhtml?lawCode=PUC§ionNum=8386.

(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.

(6) 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 created 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) 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.

(8) Plans for vegetation management.

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

(10) 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.

(11) 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.

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

(13) 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.

(14) 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.

(15) 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.

(16) 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.

(17) 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.

(18) 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.

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

(20) 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.

(21) 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.

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

(d) The Wildfire Safety Division shall post all wildfire mitigation plans and annual updates on the commission's internet website for no less than two months before the division's decision regarding approval of the plan. The division shall accept comments on each plan from the public, other local and state agencies, and interested parties, and verify that the plan complies with all applicable rules, regulations, and standards, as appropriate.

(Amended by Stats. 2020, Ch. 370, Sec. 256. [SB 1371] Effective January 1, 2021.)

Attachment 1:

[WSD-019 Action Statement SDGE 2021WMP](#)