Company: San Diego Gas & Electric Company (U 902 M)
Proceeding: 2024 General Rate Case – Track 3
Application: A.22-05-016
Exhibit: SDG&E-T3-WMPMA-04

PREPARED REBUTTAL TESTIMONY

OF JONATHAN WOLDEMARIAM

ON BEHALF OF SAN DIEGO GAS & ELECTRIC COMPANY

(TRACK 3 – WILDFIRE)

BEFORE THE PUBLIC UTILITIES COMMISSION

OF THE STATE OF CALIFORNIA

September 2025

TABLE OF CONTENTS

PREPARED REBUTTAL TESTIMONY OF JONATHAN WOLDEMARIAM ON BEHALF OF SAN DIEGO GAS & ELECTRIC COMPANY

I. INTRODUCTION

My rebuttal testimony demonstrates that San Diego Gas & Electric Company ("SDG&E") has taken deliberate and prudent steps to ensure its wildfire mitigation investments protect public safety and comply with statutory and regulatory mandates to reduce wildfire risk, track incremental spending consistent with statutory requirements, and prioritize customer affordability. The infrastructure and operational improvements described in SDG&E's Wildfire Mitigation Plans ("WMP") are essential to advancing regional wildfire resiliency in response to a changing climate and promote the continued safety of our community. SDG&E acknowledges that these enhancements come at a cost, but they are essential to reducing the risk of catastrophic fires, reducing the potential long-term financial consequences for customers and the communities we serve.

In the aftermath of the 2007 wildfires in SDG&E's service territory, SDG&E committed itself to establish a position as an innovator leading the utility industry in wildfire mitigation, risk assessment, and situational awareness. That innovative process was only enhanced after catastrophic wildfires related to utility equipment ravaged the state in 2017 and 2018, and in response to California's mandate to "construct, maintain, and operate [] electrical lines and equipment in a manner that will mitigate the risk of catastrophic wildfire posed by those lines and electrical equipment." [1]

SDG&E has prioritized work that delivers meaningful safety benefits and avoids delays or outcomes that could drive up future expenses. In addition, SDG&E has proactively proposed a unique cost recovery mechanism in this proceeding, such as a six-year amortization for just and reasonable costs recorded in its Wildfire Mitigation Plan Memorandum Account ("WMPMA"), as described further in the testimony of Mr. Guidi and which Cal Advocates does not oppose. This approach leverages SDG&E's balance sheet to benefit customers, allowing them to pay these critical investments over time, rather than all at once, promoting affordability. This structure helps ease the rate impact of critical wildfire mitigation work while ensuring the utility can continue investing in public safety and system resiliency.

[1] California Public Utilities ("Pub. Util. Code") Section (§) 8386(a).

The absence of a response to any issue in this rebuttal testimony does not imply or constitute agreement by SDG&E with the proposal or contention made by these or other parties.

II. SDG&E HAS ESTABLISHED THE REASONABLENESS OF ITS WILDFIRE MITIGATION PROGRAMS AND THE DIRECT COSTS SHOULD BE AUTHORIZED FOR RECOVERY

TURN's allegations that SDG&E has not met its burden to prove the reasonableness of its request are inconsistent with established Commission precedent and—as was the case in Track 2 of this proceeding—continue to advocate for an unprecedented twist of the prudent manager standard.[2] TURN overemphasizes the importance of cost-effectiveness as almost the sole aspect of a prudency review, and refuses to offer what would meet its vague and unstated standard to establish prudence.[3] Further, TURN argues for a new standard that SDG&E should not only provide evidence of its costs and realized program efficiencies, but perform a post-hoc analysis of all the potential alternatives to prove "savings" over those alternatives.[4] That is simply not the standard.[5] Consistent with Commission precedent, SDG&E's mitigation selections were influenced by many factors, including cost-effectiveness (whether measured by RSE or other analysis), "funding, labor, resources, technology, planning and construction lead time, compliance requirements, and operational and execution considerations."[6]

Repeatedly citing various Commission Decisions addressing the prudent manager standards and its testimony in Track 2 of this proceeding, TURN claims that SDG&E failed to put forth any evidence regarding the cost effectiveness—and thus reasonableness—of WMP initiatives. As it has throughout this case, TURN continues to ignore the record of these

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[2] Exhibit ("Ex.") TURN-1, *Prepared Testimony of Robert Finkelstein in "Track 3"* (July 14, 2025) ("Ex. TURN-1 (Finkelstein)") at 4, 6-8.

[3] *Id.* at 9.

[4] *Id.*

[5] The Commission has repeatedly held that "a decision may be found to be reasonable and prudent if the utility shows that its decision making process was sound, that its managers considered a range of possible options in light of information that was or should have been available to them, and that its managers decided on a course of action that fell within the bounds of reasonableness, even if it turns out not to have led to the best possible outcome. As we have previously stated, the action selected should logically be expected, at the time the decision is made, to accomplish the desired result at the lowest reasonable cost consistent with good utility practices." *See* D.89-02-074, 1989 Cal. PUC LEXIS 128, at 11-12.

[6] Decision ("D.") 23-11-069 at 42 (citing D.18-12-014, Attachment A, at A-14).

proceedings and its testimony demonstrates a failure to review or understand SDG&E's Wildfire Mitigation Plan filings, which evidence the decision-making processes, data analyses, and consideration of initiatives proposed and adopted by SDG&E, approved by Energy Safety, and ratified by the Commission. SDG&E's WMPs—along with the testimony, workpapers, and materials submitted by SDG&E in this case—are incontrovertibly evidence of the reasonableness, effectiveness, and risk reduction of its WMP initiatives and their incremental direct costs. The Commission should disregard TURN's attempt to mischaracterize the details and data in SDG&E's WMP.

As established in my direct testimony, SDG&E reasonably and prudently managed its wildfire mitigation programs and costs. SDG&E selected mitigation strategies tailored to risk, informed by comprehensive data analysis and situational awareness, and continually challenged itself to find ongoing efficiencies to balance the costs of its programs with customer affordability. Consistent with WMP requirements, SDG&E also presented the cost effectiveness analyses for its WMP initiatives, as evidenced by the Risk Spend Efficiency Calculations included in SDG&E's WMP submissions for applicable initiatives. TURN, a seasoned participant in WMP-related proceedings, was aware of these requirements and the RSE calculations contained within SDG&E's WMP submissions. TURN itself has cited to RSEs as an indica of cost effectiveness by which the Commission should judge the reasonableness of mitigations. TURN, however, conveniently argues against all facts to the contrary, continuing to claim that SDG&E did not assess the cost-effectiveness of initiatives prior to their implementation.

Further, TURN seems to deliberately ignore that SDG&E's Wildfire Mitigation Strategy Development initiatives include the development of risk models designed to "balance safety with customer affordability impacts."[7] This includes the Wildfire Next Generation System Model ("WiNGS"), which enables risk assessment and further prioritization of distribution grid hardening based on both an assessment of SDG&E's overall system risk and the risk of the specific circuit segment under analysis. WiNGS' systemwide risk assessment is built upon the RSE methodology adopted in SDG&E's Risk Assessment Mitigation Phase (RAMP), and the

[7] Ex. SDG&E-T3-WMPMA-01, *Chapter 1 Prepared Direct Testimony of Jonathan Woldermariam on Behalf of San Diego Gas & Electric Company (Track 3 – Wildfire)* (April 2025) ("Ex. SDG&E-T3-WMPMA-01 (Woldemariam)") at JW-23 through JW-27.

model also allows for risk analysis at the portfolio level. By aggregating all the segment risks and mitigations to arrive at an overall risk reduction result, this dual look approach allows for a better [OBJ][8]

SBUA similarly asserts that SDG&E fails to meet Commission requirements for incremental cost recovery applications, including those laid out in D.24-03-008.[9] SBUA's testimony to this extent should be disregarded. Completely contrary to SBUA's assertions, Appendix 2 of my direct testimony provides a comparison of the level of activity and costs as approved in the 2019 GRC. The reasonableness of the incremental spend is addressed in my testimony and associated exhibits. Further, SBUA seems to ignore that the primary driver of SDG&E's increased costs is that the 2019 GRC predated the enactment of the Wildfire Legislation and the requirements that electrical corporations enact swift and sweeping wildfire mitigation plans to reduce the risk of both catastrophic fires and PSPS impacts. Thus, the vast majority of SDG&E's WMP costs were entirely unforeseen in the 2019 GRC.

In addition to being cost-efficient, SDG&E's 2023 WMP initiatives were effective. SDG&E has experienced 18 years without a utility-related catastrophic wildfire. This success has been recognized across the utility industry, by the California Public Utilities Commission (Commission or CPUC), and by the investment community. As TURN relies on inaccurate statements of Commission precedent and an incomplete understanding of the evidence submitted to support the reasonableness of SDG&E's 2023 WMP costs, the Commission should disregard TURN's recommendations related to resubmitting its request. This unduly punitive effort to further delay recovery of these costs is unwarranted.

[8] The WiNGS model process is further depicted in Appendix 3 to this testimony and in Section 6 Risk Methodology and Assessment of SDG&E's 2023-2025 WMP. Further, SDG&E's risk assessment and mitigation approaches continue to evolve as our risk models and data inputs become more informed by weather developments and risk events occurring in the last few years. In September of 2023, the National Oceanic & Atmospheric Administration reported that the combined total damage related to disasters through August of the same year alone to be $57.6 billion. One of the 23 disasters included that year—and one of the costliest—was the Lahaina Fire at $5.5 billion. Of course, since the Lahaina Fire, there have been catastrophic wildfires in Texas and Chile. SDG&E continues to assess risk as informed by these events.

[9] *See* Ex. SBUA-T3-01, *Direct Testimony of Ariel Strauss on Track 3 on Behalf of Small Business Utilities Advocates* (May 16, 2022) ("Ex. SBUA-T3-01 (Strauss)")at 5. Notably, D.24-03-008 was only adopted by the Commission two months before SDG&E submitted the Track 3 application.

III. SDG&E'S REASONABLY RELIED ON REGULATORY REQUIREMENTS IN IMPEMENTING ITS APPROVED WMP

TURN also mischaracterizes SDG&E's submission as "relying heavily on its WMP-related submission as the basis for its reasonableness showing."[10] As addressed above, SDG&E has submitted thousands of pages of cost data, testimony, risk analysis, and a highly detailed presentation of authorized versus actual units and costs to prove that the costs incurred to implement its 2023 WMP initiatives were incremental, just, and reasonable. As discussed by Mr. Guidi, these include the following:

- Over 2 million line-item cost details directly from SDG&E's enterprise accounting system ("SAP"), demonstrating traceability.[11]
- Detailed direct capital and O&M costs aligned with the Commission-approved WMP cost categories, including 2019 GRC workpaper support for corresponding authorized amounts to clearly demonstrate how SDG&E accurately calculated incrementality by offsetting authorized direct costs from actual direct dollars.[12]
- Over 1,000 invoices, journal entries, contracts and other documentation supporting contractor payments which well substantiate external expenditures.[13]
- Detailed memorandum accounts schedules, including all capital-related and O&M costs, as well as clearly offsetting 2019 GRC authorized revenues included in the WMPMAs.[14]
- All debit and credit accounting entries made to the WMPMAs.15
- A rigorous, independent cost analysis conducted by E&Y, a highly reputable and respected accounting firm, which provides substantial and credible support that

[10] Ex. TURN-01 (Finklestein) at 6.

[11] See SDG&E's Responses to Data Request Number PAO-SDGE-402-CQU (May 16, 2025), Question 1.

[12] *See* Ex. SDG&E-T3-WMPMA-01 (Woldemariam), Appendix 2 "Capital and O&M Direct Costs and Units" at JW-2.

[13] *See* SDG&E's Responses to Data Request Numbers PAO-SDGE-402, PAO-SDGE-405, PAO-SDGE-408, PAO-SDGE-411, PAO-SDGE-412, and PAO-SDGE-417.

[14] *See* Ex. SDG&E-T3-WMPMA-02, *Chapter 2 Prepared Direct Testimony of Jack Guidi on Behalf of San Diego Gas & Electric Company (Track 3 – Accounting)* (April 2025) ("Ex. SDG&E-T3-WMPMA-02 (Guidi)"), Appendices 3 (WMPMA Electric Schedules) and 4 (WMPMA Gas Schedules).

[15] Provided in SDG&E's Responses to Data Request Number PCF-SDGE-T3-001 (July 22, 2025).

SDG&E's wildfire mitigation costs were in fact supported, reasonable, incremental, and directly attributable to its WMP.[16]

- O&M line-item detail for Advanced Protection, Distribution Overhead System Hardening, Avian Protection, Distribution OH Detailed Inspections, Transmission OH Detailed Inspections, Distribution OH Patrols and Lightning Arrestor Replacement that support and align with the amounts shown in my direct testimony. This supports that SDG&E cost tracking and record keeping are accurate and reliable.[17]

As discussed above, it would be error to ignore the detail and information within the WMP itself as evidence of the reasonableness and prudence of SDG&E's decision-making and efforts to reduce wildfire risk in its service territory.

Further, TURN ignores the statutory construct created by Senate Bill ("SB") 901 and Assembly Bill ("AB") 1054, which established a comprehensive compliance process for approved Wildfire Mitigation Plans. To ensure that electrical corporations remain on track in reducing risk and adhering to the commitments in its WMPs, Energy Safety and the Commission monitor both compliance and ongoing implementation of Wildfire Mitigation Plan targets. This process includes an Annual Report on Compliance prepared by the electrical corporation,[18] review by an Independent Evaluator under the direction of Energy Safety assessing both compliance with the WMP as well as whether "the electrical corporation failed to fund any activities included in its plan,"[19] and a subsequent determination regarding WMP compliance by Energy Safety, considering the findings of the independent evaluator.[20] Energy Safety's 2023 Compliance Guidelines required comprehensive reporting on the "electrical corporation's progress towards achieving the objectives for the three-year plan cycle," including individual

[16] SDG&E notes that any costs identified as not incremental or related to wildfire mitigation work by E&Y were excluded from this request.

[17] See *infra* Section IV.C for further discussion regarding the O&M line-item detail that supports Advanced Protection, Distribution Overhead System Hardening, Avian Protection, Distribution OH Detailed Inspections, Transmission OH Detailed Inspections, Distribution OH Patrols and Lightning Arrestor Replacement costs.

[18] Pub. Util. Code § 8386.3(c)(1).

[19] Pub. Util. Code § 8386.3(c)(2)(B)(i).

[20] Pub. Util. Code § 8386.3(c)(4).

discussions of all initiatives by tracking number.[21] To the extent the electrical corporation did not complete all approved initiative "targets" (e.g. units of work as approved in the WMP), the Guidelines required not only a "detailed explanation of what was incomplete, why, and associated corrective actions the electrical corporation has taken to prevent recurrence of such failures."[22]

Energy Safety's compliance process evaluated "whether the electrical corporation complied with its WMP," through an assessment of the electrical corporation's "compliance with discrete WMP commitments for each initiative," and a holistic evaluation of "the electrical corporation's execution of the WMP."[23] Electrical corporations that do not substantially comply with their WMP are subject to fines and penalties.[24] These fines can be significant, as recently evidenced by the Commission's levying of a proposed $27 million fine against PacifiCorp for failure to comply with its 2020 WMP.[25]

Energy Safety's 2023 WMP Compliance Guidelines also established a process to issue a Notice of Violation when the regulator identified "instances of noncompliance with the WMP or any law, regulation, or guideline within the authority of the office," or a Notice of Defect "when it identifies deficiencies, errors, or conditions that increase the risk of ignition posed by electrical lines and equipment."[26] To the extent Energy Safety identified potential defects or violations, the Compliance Guidelines established a process by which Energy Safety could direct electrical corporations to correct, assess, or repair the issue.[27]

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[21] Office of Energy Infrastructure Safety, *WMP Compliance Guidelines* (September 2023), *available at*: https://energysafety.ca.gov/what-we-do/electrical-infrastructure-safety/compliance/wildfire-mitigation-plan-compliance/ (attached as Appendix 6).

[22] *Id.* at 10.

[23] *Id.* at 16.

[24] Pub. Util. Code § 8386.1; *see also* Pub. Util Code § 8389(g) ("If the division determines an electrical corporation is not in compliance with its approved wildfire mitigation plan, it may recommend that the Commission pursue an enforcement action against the electrical corporation for noncompliance with its approved plan.").

[25] In the matter of: PacifiCorp's 2020 Wildfire Mitigation Plan Compliance, *Administrative Enforcement Order Number* CPUC-21-AEO (June 3, 2025).

[26] Office of Energy Infrastructure Safety, *WMP Compliance Guidelines* (September 2023), *available at*: https://energysafety.ca.gov/what-we-do/electrical-infrastructure-safety/compliance/wildfire-mitigation-plan-compliance/

[27] *Id.* at 5.

In addition to Energy Safety's assessment of compliance at the end of the annual WMP cycle, electrical corporations must demonstrate implementation of their approved WMPs to obtain a safety certification.[28] Consistent with Public Utilities Code Section 8389(e)(7) and Energy Safety requirements, SDG&E submits Quarterly Notification Letters to Energy Safety and the Commission describing progress toward WMP targets, and must explain any instances where it is "off track" with respect to WMP initiatives through the safety certification process.[29] Failure to make reasonable efforts to implement an approved Wildfire Mitigation Plan can jeopardize an electrical corporation's safety certification, which could result in significant financial ramifications for the utility, in addition to undermining the very construct and stability that AB1054 was designed to support.

SDG&E is aware that the Commission has found that approval of WMP costs does not necessarily equate to approval of cost recovery, as TURN points out. But the Commission also cannot ignore that the structure of the Wildfire Legislation, compounded by the Compliance Guideline requirements created by Energy Safety, created a rigid system by which electrical corporations must comply with their approved WMP targets or face potentially material consequences. Energy Safety's establishment of Notice of Violation and Defect process similar to that used to enforce Commission General Orders, such as GO 95 or GO 166, further supports that it was reasonable for SDG&E to construe approval of the WMP as establishing wildfire mitigation work requirements for the applicable year. Those requirements were, for the most part, mandatory, not discretionary. Thus, it is neither reasonable nor appropriate to look back upon a reasonableness review and question the prudency of completing the projects themselves. Rather, the Commission's review should be focused on whether those initiatives were completed in a reasonable and prudent fashion, consistent with the prudent manager standard. Failure to authorize reasonable funds to complete these initiatives, consistent with SDG&E's approved WMPs, would otherwise constitute an unfunded mandate.

[28] Pub. Util. Code § 8389(e)(7).

[29] Ex. SDG&E-T2-06 (Woldemariam) at 23; *see also* Office of Energy Infrastructure Safety, *Safety Certifications Guidelines* (August 2024), *available at*: https://energysafety.ca.gov/what-we-do/electrical-infrastructure-safety/wildfire-mitigation-and-safety/safety-certifications/.

IV. SDG&E'S DIRECT COSTS ARE REASONABLE AND SHOULD BE AUTHORIZED FOR RECOVERY

A. Costs For Wildfire Mitigation Outside the HFTD Reduced Risk and Are Reasonable

As discussed in my Track 2 rebuttal testimony, in 2021, Daniel Berlant, former Assistant Deputy Director of CAL FIRE stated, "nearly every acre of California has the potential to burn these days."[30] SDG&E must be prepared to mitigate wildfire risk to the best of our ability throughout the service territory. Vegetative fuel conditions and weather conditions—including from prolonged drought—drive the risk of rapid wildfire growth and hazard to adjacent communities, including that fall outside the High Fire Threat District ("HFTD"). The High Fire Threat District (HFTD), developed by the CPUC, is a map of the highest wildfire risk areas in California.[31] Although the risk of catastrophic wildfire is greatest in the HFTD, fires outside the HFTD can still pose immediate and devastating threat to the surrounding communities. For example, the 2024 Del Mar Fire spread through a coastal wildland-urban interface ("WUI"), resulting in community evacuations and underscoring the need for ongoing attention to mitigation measures that reasonably align with the risks present in the area, such as enhanced inspections, vegetation management efforts, and aerial firefighting support. Had the same ignition occurred during Santa Ana conditions, the impacts could have been far more devastating. .

Wildfires do not adhere to arbitrary boundaries, nor was SDG&E's infrastructure specifically designed to delineate between HFTD and non-HFTD. While the boundaries of Tiers 2 and 3 have been roughly mapped, conditions supporting wildfire growth into the HFTD and system structures can remain high along boundary areas. Strategic investments near the HFTD—such as hardening of a complete circuit or segment that lies both in and outside of the HFTD—are crucial for achieving the desired risk reduction within the HFTD. Further, some work may be necessary outside of the HFTD to address PSPS risk or align WMP work with existing system

[30] PBS News Hour, *'Nearly every acre' in California has potential to burn, state fire official warns* (August 19, 2021), *available at*: https://www.pbs.org/newshour/show/nearly-every-acre-in-california-has-potential-to-burn-state-fire-official-warns.

[31] CPUC High Fire Threat District (HFTD), *available at*: https://www.arcgis.com/home/item.html?id=986b9c5900b1424dac71b2f91b9b7475.

structure. Therefore, in certain instances SDG&E may consider wildfire mitigation work in areas outside of Tiers 2 and 3 of the HFTD.

Public Safety Power Shutoff ("PSPS") impacts are also not confined to the HFTD. SDG&E's most recent PSPS de-energization in January 2025 included areas outside of the HFTD. Specific mitigation strategies outside of the HFTD are therefore necessary to implement and support PSPS de-energizations, such as installing PSPS sectionalizing devices and utilizing microgrid technologies to reduce customer impacts. Further, enabling Sensitive Relay Profiles (SRP) during extreme weather conditions short of a PSPS de-energization is a useful and appropriate mitigation measure to address the risk present both inside and outside of the HFTD.

Cal Advocates recommends the Commission "remove all costs for work performed outside of the HFTD from the WMPMA as an inappropriate or inefficient use of resources."[32] It goes on to misconstrue the purported "clear meaning" of the statute - California Public Utilities Code section 8386 (a) – "is that maintenance work should be done in areas with higher wildfire risk."[33] SB 901 required wildfire mitigation efforts to be effected far more broadly than simply the HFTD; "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."[34] The California Fire Office of State Fire Marshal (CAL FIRE) acknowledges both high and very high fire severity zones,[35] which don't perfectly align with the HFTD boundary. Moreover, local cities and fire districts also recognize elevated wildfire risk within boundary areas outside of the HFTD. While the risk may not merit an expansion of the HFTD into boundary areas, utilities need to address the significant risks in these areas. One example in SDG&E's service territory is the community of Rancho Santa Fe, an area in proximity to (but not within) the HFTD, where dense high-risk vegetation conditions, a dry environment, and other environmental factors lead to increased wildfire and PSPS risk.

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[32] Ex. CA-04, *Report on the Results of Operations for San Diego Gas & Electric Company General Rate Case Test Year 2024* (July 14, 2025) ("Ex. CA-04 (Kang)") at 20.

[33] *Id* at 22.

[34] Pub. Util. Code § 8386(a).

[35] Cal Fire, *Fire Hazard Severity Zones*, *available at*: https://osfm.fire.ca.gov/what-we-do/community-wildfire-preparedness-and-mitigation/fire-hazard-severity-zones.

Therefore, it is reasonable to apply an appropriate level of wildfire and PSPS mitigation to areas outside the HFTD that align with the risk posed in those areas.

Additionally, in many instances the work SDG&E performed outside the HFTD benefits customers and communities within the HFTD. In other words, the physical location of the work or infrastructure does not necessarily dictate where the benefits will be felt. For example, Early Fault Detection sensors installed in a substation outside the HFTD, but that communicates with line-side sensors on circuits within the HFTD, will result in direct risk reduction benefits in the HFTD. In this case, both HFTD and non-HFTD sensors are necessary to enable fault detection technology that will ultimately benefit customers within and outside of the HFTD. Both scenarios are reasonably appropriate and efficient.

Cal Advocates further recommends that "significant amounts of work performed beyond Tier 2 and Tier 3 areas should be removed as unreasonable and inappropriate at this time as the utility's priority should not be Tier 1 and WUI non-HFTD areas."[36] However, there is ample evidence that SDG&E has prioritized its sustained grid hardening initiatives in Tier 3 and Tier 2 of the HFTD, which comprised the majority of the work and costs associated with the implementation of its WMP. Of the $332.96 million direct capital costs included in this proceeding, 72% was for work performed in the HFTD, demonstrating SDG&E's priority is in the highest risk areas. From a strictly spend perspective, the remaining 28% spent "outside" the HFTD is reasonably aligned with the level of risk in those areas, has direct benefits within the HFTD, or is aimed at reduction of PSPS customer impacts felt outside of the HFTD. Claiming that any spend – no matter how minimal - associated with work outside the HFTD should be disallowed wrongfully suggests that SDG&E is prioritizing non-HFTD areas and overlooks the prioritization of the majority of SDG&E's wildfire mitigation work.

For most of SDG&E's WMP initiatives, the amount of grid hardening or electric infrastructure work outside the HFTD was kept to a minimum and performed in proximity to the HFTD. These projects were reasonable and prudent. The Commission should reject Cal Advocates' claim that any and all WMP work performed outside the HFTD should be disallowed. Such a blanket contention does not allow for reasonable adjustments and work to accommodate the risks posed in those areas, as well as the proximity of the work to the HFTD.

[36] Ex. CA-03, *Report on the Results of Operations for San Diego Gas & Electric Company General Rate Case Test Year 2024* (July 14, 2025) ("Ex. CA-03 (Yang)") at 29.

Any work performed outside the HFTD is reasonably justified and tailored to the wildfire risk posed by that area, system needs, or PSPS reduction. For the reasons discussed herein, the Commission should authorize work performed outside of the HFTD in conjunction with SDG&E's WMP.

1. Distribution Communications Reliability Improvements

SDG&E's DCRI initiative supports a wireless solution that provides high-speed, reliable, safe, and secure communications to vital assets and personnel within HFTD areas. The initiative supports many of the advanced protection systems SDG&E is developing for the HFTD; such as Falling Conductor Protection, SCADA switches to support PSPS events and day-to-day operations, and Early Fault Detection ("EFD"). The base stations installed throughout the network also provide essential communications to our field and safety crews, exemplifying SDG&E's commitment to maintaining robust communication lines, even in challenging circumstances.

This service requires the implementation of multiple technology components, including the construction of base stations, the procurement of spectrum, and centralized systems that connect the wireless communications back to the central points where the data is needed for effective response to any mitigation efforts on our distribution and/or transmission lines. Centralizing communication is essential and will allow our grid operations and crews to successfully identify and address any potential fire hazards and/or downed line outages. The DCRI initiative's costs are allocated to these aspects of installing and providing this communication to our HFTD areas.

SDG&E developed a comprehensive plan to design a route from the base stations in the HFTD back to the centralized data center and mission control, along with developing coverage throughout HFTD areas within SDG&E's service territory. In certain cases, where no other route exists, a base station outside the HFTD was necessary to establish a path to the HFTD. In other cases, SDG&E installed a base station outside of the HFTD to optimize the wireless communications for and within the HFTD, which reduces the need for additional base stations. Strategically placed base stations, both inside and outside of the HFTD, help maximize coverage and reduce costs. As connecting the HFTD infrastructure and assets to mission control and SDG&E's data center required a network consisting of some non-HFTD base stations, these stations were necessary and reasonable to achieve the initiative goals.

Cal Advocates provides no basis for recommending disallowance of $8.593 million in capital expenditures and $0.546 million in O&M expenses for DCRI work in non-HFTD areas.[37] Cal Advocates continues to ignore the fact that SDG&E's DCRI requires a network of base stations that allows communications and systems to extend into SDG&E's backcountry areas throughout the HFTD, supporting many risk reduction initiatives. It seems Cal Advocates ignored SDG&E's substantiation of its selected locations in response to data request PubAdv-SDG&E-412-WY2, Q. 3c, which states "For communications to be available within the HFTD, a communication pathway that necessitated base stations outside the HFTD was needed…" Absent the pathway outside of the HFTD, HFTD base stations would be obsolete. Thus, Cal Advocates' recommended reductions are unfounded and should be disregarded.

SDG&E's process for designing coverage maps and the ideal location of each base station is based on several factors.

- HFTDs
- Areas of highest need are determined: coverage of project needs (either SCADA devices, Falling Conductor Protection devices, fault detection, Strategic Undergrounding, etc)
- Topology of the HFTD area
- Where assets are currently located that can be leveraged to cover the determined area within the High Fire Threat District.
- Ability to ensure the signal is reachable into the High Fire Threat District

RF Frequency studies provided as Appendix 3 to this testimony show Tier 2 and Tier 3 coverage were used to inform optimum base station locations to cover the targeted area within the HFTD. Along with these factors, areas are needed to ensure effective monitoring within the HFTD for situational awareness and grid-operating capabilities. All locations installed – both within and outside of HFTD - were selected because they provide optimal monitoring visibility and grid-operating capability for HFTD areas. Therefore, Cal Advocates' assertion that base station installations outside the HFTD are not substantiated should be disregarded and the Commission should find this work reasonable as it supports wildfire mitigation capabilities in the HFTD.

[37] Ex. CA-03 (Yang) at 3.

2. Microgrids

SDG&E disagrees with Cal Advocates' recommendation to exclude expenditures related to microgrid development outside of the HFTD, arguing that "SDG&E did not demonstrate how installing microgrids at non-HFTD locations directly reduces ignition risk or prevents catastrophic wildfires."[38] This assertion overlooks the fundamental purpose and value of microgrids. As outlined in SDG&E's 2023–2025 Base WMP and my Direct Testimony, the purpose of the Microgrid Program is to build microgrids that can operate independently during PSPS de-energizations. Microgrids are thus not an ignition reduction tool, they are a PSPS risk mitigation implemented consistent with Commission guidance. As SDG&E has previously explained,

> Microgrids provide power continuity to customers during both planned and unplanned outages. Specifically, during PSPS events, this results in reduced duration and severity of disruption to customers' electric service. The reduction of PSPS impacts is key to increasing resiliency and reliability to customers. This is especially important for critical facilities, as they provide firefighting resources and life-saving services among other things, and AFN customers some of whom require medical devices to be powered 24 hours a day, seven days a week.[39]

These systems help maintain electric service for customers who would otherwise experience outages. Therefore, while microgrids may not directly reduce wildfire ignition risk, they play a critical role in mitigating the impacts of PSPS de-energizations on communities, which is part of SDG&E's broader wildfire resilience strategy and consistent with statutory requirements for Wildfire Mitigation Plans.

While two of SDG&E's microgrids are located outside of the HFTD, the distribution lines that serve those communities often traverse HFTD areas. As a result, these communities are still subject to de-energization during PSPS de-energizations. By operating two microgrids outside the HFTD, SDG&E is able to reduce PSPS impacts both within and beyond HFTD boundaries. As shown in the graphic below,[40] because customers outside the HFTD can still be

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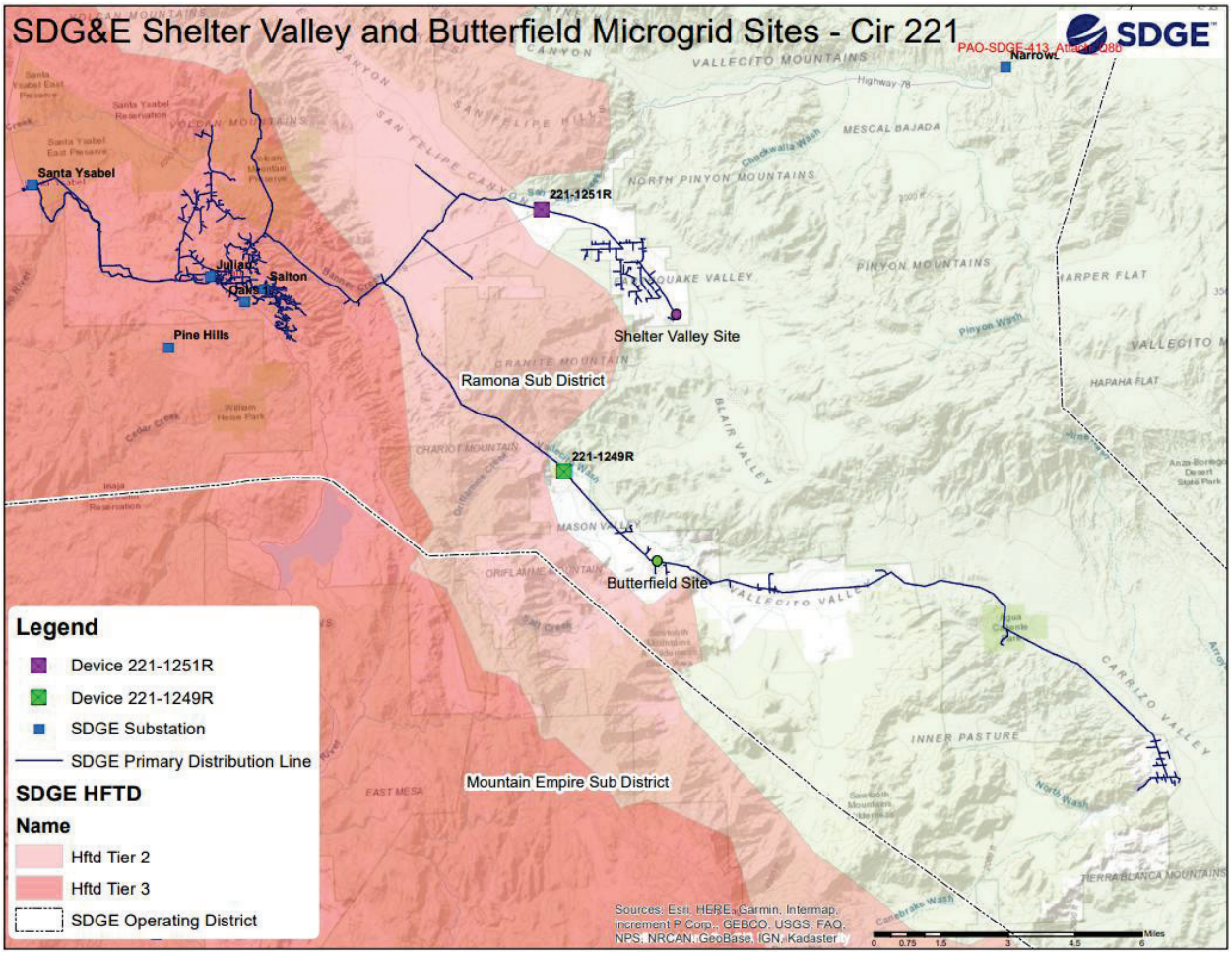
[38] Ex. CA-03 (Yang) at 31.

[39] SDG&E, *2020-2022 WMP Update* (February 5, 2021) at 200, *available at* https://www.sdge.com/sites/default/files/regulatory/SDG%26E%202021%20WMP%20Update%2002-05-2021.pdf.

[40] *See* SDG&E's Responses to Data Request Number PAO-SDG&E-413-WY2 (June 27, 2025) at Q.8.b

affected by PSPS-related outages, it is both reasonable and necessary to use non-HFTD microgrids to restore service—delivering direct benefits to customers regardless of whether they reside within formal HFTD boundaries.

As SDG&E's microgrids all serve to meet the requirement to reduce the "scale, scope, and frequency" of PSPS events, and are tailored to PSPS risks related to system configuration, The Commission should authorize SDG&E's requests related to microgrid costs.



3. Strategic Pole Replacement Program

Cal Advocates recommends disallowing costs associated with a single pole replacement located in the WUI *less than 1 mile outside the HFTD*, arguing that "SDG&E failed to substantiate that the work performed under the Strategic Pole Replacement Program in 2023

prioritizes mitigation of the highest wildfire risk and prevention of catastrophic wildfires."[41] However, this assertion overlooks the broader intent of the program within SDG&E's comprehensive wildfire mitigation strategy.

The Strategic Pole Replacement Program is designed to complement—not duplicate—other high-impact mitigation efforts such as undergrounding and covered conductor installations, which are deployed in the highest-risk areas to maximize risk reduction. Prioritizing pole replacements in those same areas would be neither prudent nor cost-effective, given that more robust mitigations are already planned or underway.

Instead, this program targets gas-treated poles in fire-prone areas of the service territory, including Tier 2 and Tier 3 HFTD and the WUI, where other mitigations like undergrounding or covered conductor are not planned.[42] Regarding the specific location of the pole replaced in 2023, the location of this replacement in the WUI is appropriate to reduce both the likelihood and consequence of ignition in these populated areas.[43] The WUI represents a unique interface where wildland fuels meet human development. Therefore, even when the physical acreage of wildfires in the WUI do not qualify as catastrophic, there is often the potential for immediate and severe impacts from wildfire events.

SDG&E therefore applies mitigation strategies that are tailored to the specific risk profiles of these areas. The Strategic Pole Replacement Program addresses risk in locations not otherwise addressed with other, more intensive mitigation efforts.

4. Early Fault Detection

Cal Advocates recommends removing costs associated with six Early Fault Detection sensors located outside the HFTD because "PQ meters should be prioritized to be positioned within HFTD areas to detect equipment failures that could potentially cause ignition to prevent catastrophic wildfires, not at substations in non-HFTD areas."[44] The Commission should disregard Cal Advocates' recommendation because it fails to recognize the structure of SDG&E's grid design and that the benefits of these PQ meters were incurred in the HFTD. Even

[41] Ex. CA-03 (Yang) at 32.

[42] Ex. SDG&E-T3-WMPMA-01 (Woldemariam) at JW-45.

[43] *Id.* at JW-3.

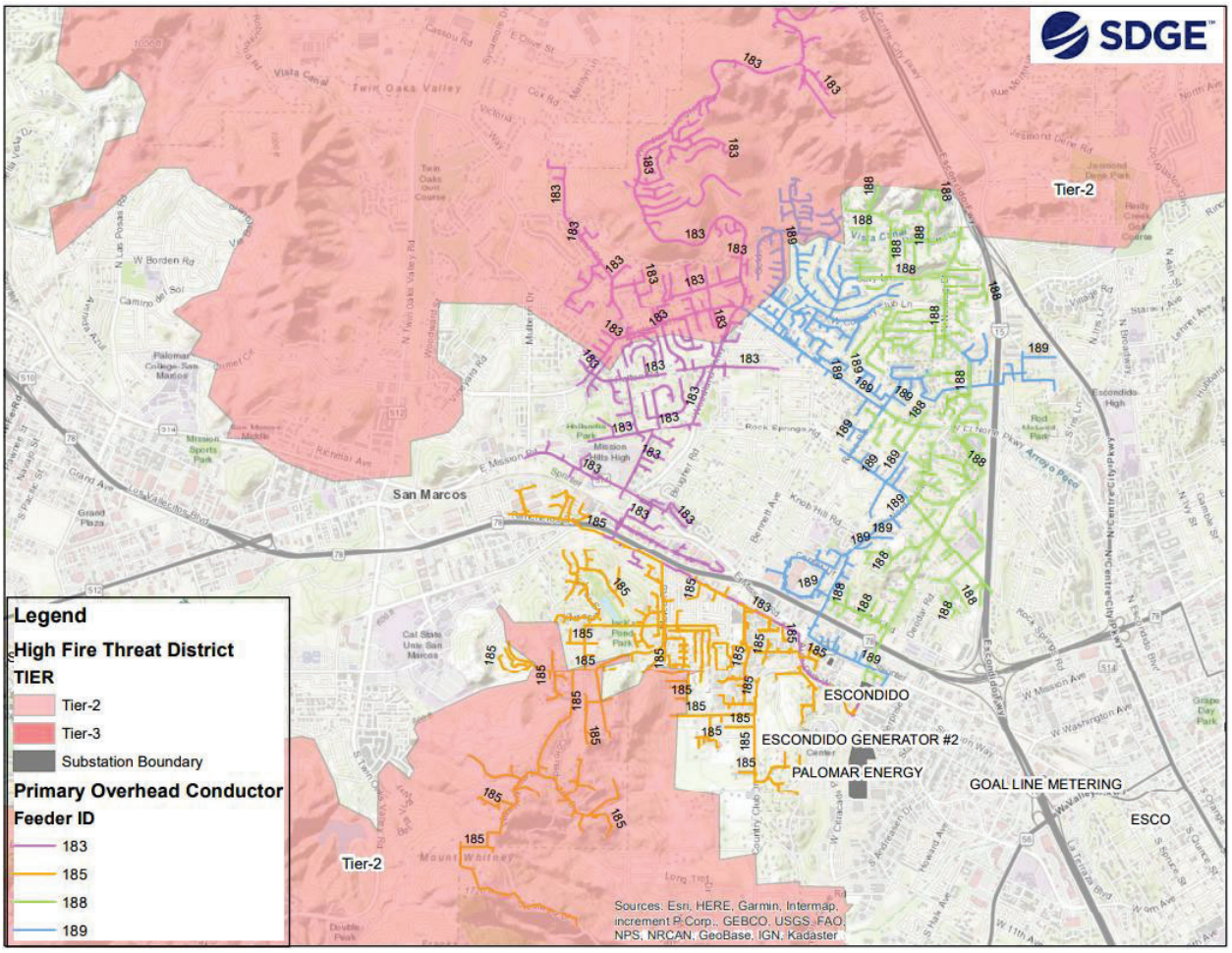
[44] Ex. CA-03 (Yang) at 34.

though these sensors are not within the HFTD, they detect equipment failures that could potentially cause an ignition in order to prevent catastrophic wildfires in the HFTD. As detailed in SDG&E's response to PAO-SDGE-411-WY2, the installation and associated costs of the six sensors located outside the HFTD are both reasonable and necessary. Although these sensors are physically placed at substations outside the HFTD, they are specifically designed to monitor circuits within Tier 2 and Tier 3 of the HFTD.

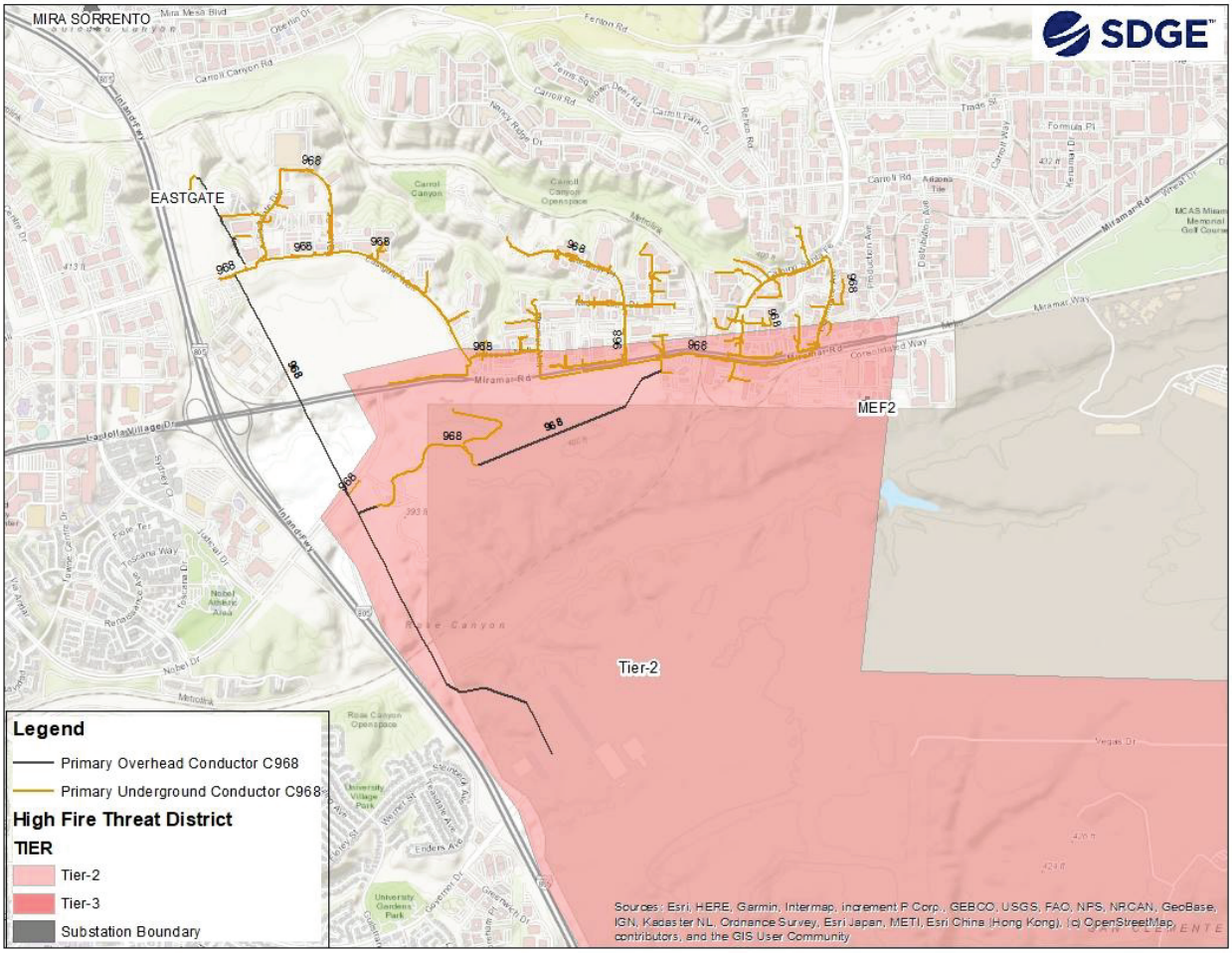
The placement of these sensors is strategic; each sensor supports visibility and situational awareness for circuits within the HFTD, despite being located in non-HFTD substations. SDG&E therefore recommends that the Commission find their deployment justified based on their direct relevance to wildfire risk monitoring. Maps of Eastgate and Escondido substations and the HFTD circuits they serve are provided below for reference.

- Eastgate: C968
- Escondido Bank: C183, C185, C188, C189

Escondido Substation and HFTD Circuits C183, C185, C188, C189



Eastgate Substation and HFTD circuit C968



5. PSPS Sectionalizing Enhancements

Cal Advocates recommends removing costs associated with one PSPS sectionalizing switch, stating that "such spending is wasteful as this work does not focus on mitigating the highest wildfire risk and preventing catastrophic wildfires."[45] Again, Cal Advocates fails to recognize the purpose of this program and given this misinformed analysis, the recommendation should be disregarded. Because the main purpose of sectionalizing switches is to minimize the impacts of PSPS de-energizations on communities by allowing for strategic isolation of circuits, which enables continued service to downstream areas during de-energization, it is accurate to say that the switch in question is not primarily intended to reduce wildfire risk. The sectionalizing of

[45] *Id.* at 35.

SDG&E's system through these switches reduces the number of customers who are subject to de-energization.

Because PSPS de-energizations are not limited to the HFTD, sectionalizing switches are sometimes necessary in areas outside of the HFTD to minimize the impacts of PSPS. Limiting the placement of these switches to the HFTD would be a disadvantage to communities that are energized by circuits that traverse high-risk areas in the HFTD. The switch in question was installed on the boundary of Tier 2 of the HFTD and serves a circuit that traverses into Tier 2. Therefore, the Commission should find this work and associated cost reasonable and justified.

6. Drone Assessments

Cal Advocates recommends removing costs associated with drone assessments conducted outside the HFTD, citing only the boundary designation as justification. Cal Advocates fails to recognize the risk reduction of this program, as recognized by the Commission in SDG&E's recent General Rate Case Decision.[46] Enhanced inspections of equipment is a reasonable and prudent means of managing risk both in the HFTD and in areas outside the HFTD that could pose additional risk. By 2023, SDG&E had already performed a comprehensive drone inspection of all lines within the HFTD, and the ongoing, risk-based continuation of this program both in and outside of the HFTD was reasonable and prudent. Further, 10% of the drone inspections that were conducted outside of the HFTD targeted poles located along circuits that cross the HFTD boundary and are designed to address wildfire risk both inside and outside the designated zone.

The WUI represents a critical zone where human development meets wildland vegetation, often posing elevated risks to life and property due to immediate exposure. Drone inspections in these areas follow the same rigorous protocols as those within the HFTD, including structure assessments, image capture, issue identification, and necessary repairs. As discussed in its 2023-2025 Base WMP, SDG&E applied a risk-informed approach to its drone inspections, incorporating factors such as undetermined outages, asset age and health, vegetation, topography, and other relevant data. Each structure was assigned a risk score based on the probability and consequence of failure, guiding inspection prioritization.

[46] D.24-12-074

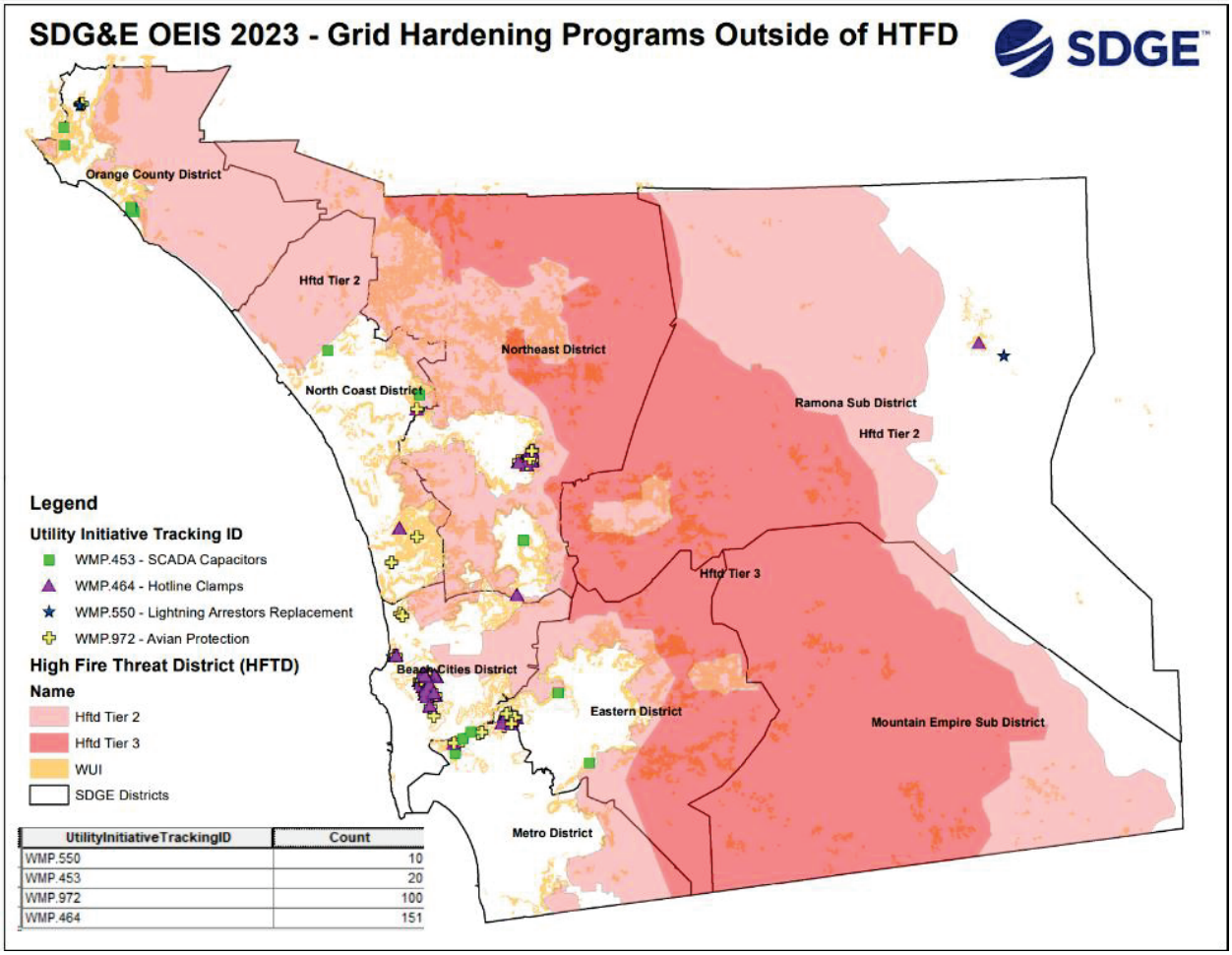
The expansion of drone inspections in WUI areas was also driven by the need to mitigate wildfire risk in coastal canyon regions and to address ingress/egress vulnerabilities highlighted by the 2023 Lahaina, Hawaii wildfire. In response to that event, SDG&E proactively enhanced inspections in areas with similar characteristics, recognizing the heightened risk to communities with limited evacuation routes.

While areas in Tier 2 and Tier 3 of the HFTD remain the primary focus of enhanced inspection efforts, SDG&E continues to apply a comprehensive, risk-based strategy across both HFTD and WUI regions to ensure inspections are targeted where they are most beneficial. The Commission should find these inspections and the associated costs reasonable, efficient and a prudent approach.

7. SCADA Capacitors, Lightning Arrestors, Hotline Clamps, and Avian Mitigation

Cal Advocates recommends removing costs associated with various assets installed outside of the HFTD including SCADA capacitors, lightning arrestors, hotline clamps, and avian protection. Importantly, all of these assets were installed in the WUI region and near Tier 2 of the HFTD, as shown in the map below. Contrary to Cal Advocates' assertions, these risk reduction programs are reasonably tied to reducing risk and complying with the mandate that SDG&E plan, maintain, and operate its *entire* electrical system in a manner that reduces the risk of catastrophic wildfire.[47] Therefore, it was reasonable to apply an appropriate level of relatively lower cost wildfire mitigations outside the HFTD that align with the risk posed in those areas. Cal Advocates further disregards the fact that WUI areas are much more densely populated and a fire in those areas can have an immediate and devastating impact on those communities. Therefore, these mitigation investments were reasonable and tailored to the risk and should be authorized for recovery.

[47] Pub. Util. Code § 8386.



B. The Commission Should Authorize Costs Associated With Construction of the Wildfire and Climate Resilience Center

Cal Advocates mischaracterizes SDG&E's construction of the Wildfire and Climate Resilience Center ("WCRC") as unreasonable, inaccurately claiming that it does not serve WMP activities. To the contrary, the WCRC was a component of SDG&E's approved 2023 WMP and directly contributes to SDG&E's efforts to reduce wildfire risk, promote emergency response, and reduce the scale and scope of PSPS events.[48],[49]

[48] Office of Energy Infrastructure Safety, *SDG&E's Approved 2023-2025 WMP* (October 23, 2023) ("SDG&E 2023-2025 WMP") at 371, *available at: https://energysafety.ca.gov/what-we-do/electrical-infrastructure-safety/wildfire-mitigation-and-safety/wildfire-mitigation-plans/2023-wildfire-mitigation-plans/*

[49] SDG&E's Responses to Data Request Numbers PAO-SDGE-408, Q5g, Q5i, and PAO-SDGE-417, Q1.

SDG&E's 2023-2025 Base WMP described the construction of the WCRC "as a physical space committed to understanding evolving wildfire and climate impacts and to build climate-informed grid resilience. From wildfire mitigation to community preparedness resilience, having a physical space to advance science, respond to emergencies, engage with partners, and educate the community will be paramount for developing collective wildfire and climate-related resilience for the company and the region."[50] It goes on to describe the WCRC as a centralized workplace that will house SDG&E's new Emergency Operations Center ("EOC") and many of the departments developing and supporting WMP implementation. In its approval of SDG&E's 2023-2025 Base WMP, Energy Safety recognized SDG&E as "strong in its… situational awareness, emergency preparedness, and community outreach and engagement"[51] showcasing SDG&E's commitment to ongoing enhancements in those categories that the WCRC enables. Construction of the WCRC was necessary to meet ongoing space and technology demands and enable SDG&E to effectively staff its growing wildfire mitigation program and support PSPS preparedness and response. Costs associated with the WCRC should thus be approved.

1. Expansion of the Wildfire and Climate Science organization necessitated the WCRC

The WCRC was established, in part, to support the integration of newly centralized departments—Wildfire Mitigation, Fire Science and Climate Adaptation, and Emergency Management—into the Wildfire and Climate Science ("WCS") organization. The WCS organization is dedicated to advancing wildfire mitigation efforts and supporting Public Safety Power Shutoff ("PSPS") operations. The WCS was also expanded to meet evolving requirements introduced by SB 901 and AB 1054.

In 2023, the WCRC was constructed by repurposing an existing office building to accommodate both new personnel and a workforce transitioning back to in-person operations following remote and hybrid work arrangements during the COVID-19 pandemic.

Cal Advocates contends that SDG&E's decision to deem its previous office arrangement for wildfire mitigation as operationally insufficient lacks supporting documentation, noting that

[50] SDG&E 2023-2025 WMPat 371.

[51] Office of Energy Infrastructure Safety, *Draft Decision on SDG&E's 2023-2025 WMP* (August 30, 2023) at 1, *available at*: https://energysafety.ca.gov/what-we-do/electrical-infrastructure-safety/wildfire-mitigation-and-safety/wildfire-mitigation-plans/2023-wildfire-mitigation-plans/

work continued in 2023 across the three departments using existing office space prior to the renovation into the WCRC. However, SDG&E's testimony and responses to data requests clearly demonstrate that the existing space was inadequate to support the expansion of the Wildfire and Climate Science ("WCS") organization—particularly with the addition of 35 new employees—and the need to modernize the Emergency Operations Center to support new PSPS response and notification requirements.

As SDG&E transitioned back to in-office operations in 2023, personnel from Wildfire Mitigation, Fire Science and Climate Adaptation, and Emergency Management were required to share office and cubicle space with other departments due to a shortage of available desks. For instance, Appendix 1 includes a 2023 roster for Century Park, Building 3, Floor 1, showing that Wildfire Mitigation staff shared cubicles with employees from other departments, and work schedules were adjusted to manage the limited space. Emergency Management staff frequently operated from undesignated common areas due to the lack of dedicated workstations.

While shared desk arrangements were feasible during the COVID-19 pandemic when hybrid and remote work were prevalent, the return to full in-person operations—combined with the growth of the WCS organization—rendered the previous office setup insufficient. The establishment of the WCRC was necessary to provide adequate space and resources to support the expanded team and evolving operational needs.

2. The Function of the WCRC directly supports WMP initiatives and activities

Cal Advocates further argues that "SDG&E failed to substantiate the company's decision that maintaining the previous office arrangement for the three departments was operationally insufficient because having state-of-the art technology and building synergy by bringing the three departments of the WCS together are not WMP activities."[1] Again, Cal Advocates fails to understand the full scope and requirements of WMP operations and the expanded necessity of staff, technology, and office space to comply with those obligations.

In the 2023-2025 Wildfire Mitigation Plan Technical Guidelines, Energy Safety established the following categories for development of the WMP: Wildfire Mitigation Strategy Development, Situational Awareness and Forecasting, Emergency Preparedness (including

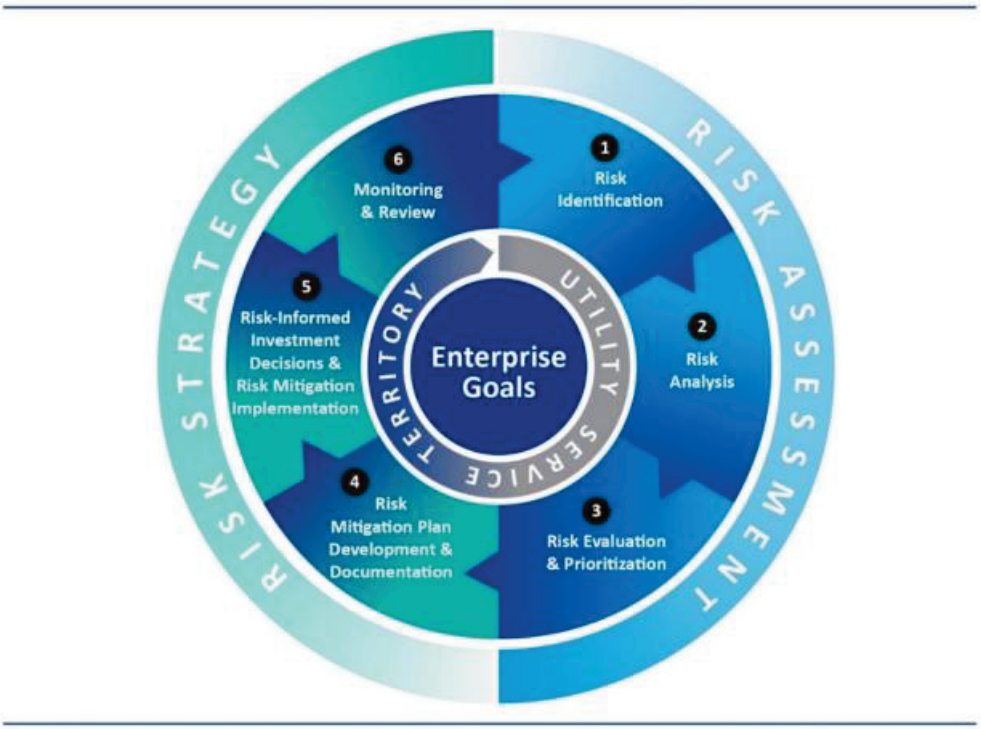
PSPS), and Community Outreach and Engagement.[52] SDG&E's Wildfire Mitigation Department is part of the Wildfire Mitigation Strategy Development category, the Fire Science and Climate Adaptation department is part of the Situational Awareness and Forecasting category, and the Emergency Services department is part of the Emergency Preparedness category, demonstrating that the entirety of the WCS organization not only supports, but implements, WMP activities. The centralization of these departments, both organizationally and physically, allows for an integrated and cohesive approach to effective wildfire risk management, whereby SDG&E "defines enterprise goals, analyzes the service territory, identifies, manages, and mitigates enterprise risks, and provides consistent, transparent, and repeatable results."[53] Cohesion of these departments also promotes efficiencies and innovation. The work of this organization was also recognized by Energy Safety, who stated in its approval of SDG&E's 2023-2025 Base WMP that SDG&E is "strong in its… situational awareness, emergency preparedness, and community outreach and engagement."

SDG&E's risk framework, discussed in its 2023-2025 Base WMP, further demonstrates why centralizing the WCS was necessary. The framework is the "through-line" to develop the Company's WMP, and every section and category of the WMP is associated with a step in this framework.[54] The Figure and Table below illustrate SDG&E's risk framework as the "through-line" to its WMP development, around which the WCS organization was centralized.

[52] Office of Energy Infrastructure Safety*, 2023-2025 Wildfire Mitigation Plan Technical Guidelines* (December 6, 2022), *available at:* https://energysafety.ca.gov/what-we-do/electrical-infrastructure-safety/wildfire-mitigation-and-safety/wildfire-mitigation-plans/2023-wildfire-mitigation-plans/

[53] SDG&E 2023-2025 WMP at 19.

[54] *Id.* at 23, OEIS Table 4-2: Risk-Informed Approach Components.



Component	Component Description	SDG&E Risk Management Process	WMP Section
1. Goals and plan objectives	Identify the primary goal(s) and plan objectives of the electrical corporation's WMP.	Enterprise Goals	4.1 4.2
2. Scope of application	Define the physical characteristics of the system in terms of its major elements: electrical corporation service territory characteristics, electrical infrastructure, wildfire environmental settings, and various assets-at-risk. Knowledge and understanding of how individual system elements interface are essential to this step.	Evaluate Service Territory	5.1
3.Hazard Identification	Identify hazards and determine their likelihoods.	1. Risk Identification	6.2.1
4. Risk Scenario identification	Develop risk scenarios that could lead to an undesirable event. Risk scenario techniques that may be employed include event tree analysis, fault tree analysis, preliminary hazard analysis, and failure modes and effects analysis.	2. Risk Analysis	6.3
5. Risk analysis	Evaluate the likelihood and consequences of the identified risk scenarios to understand the potential impact on the desired goal(s) and plan objectives. The consequences are based on an array of risk components that are fundamental to overall utility risk, wildfire risk, and PSPS risk given the electrical corporation's scope of application and portfolio of wildfire mitigation initiatives.	2. Risk Analysis	6.2.2
6. Risk presentation	Consider how the risk analysis is presented to the various stakeholders involved.	3. Risk Evaluation & Prioritization	6.4

Component	Component Description	SDG&E Risk Management Process	WMP Section
7. Risk evaluation	Identify criteria and procedures for identifying critical risk both spatially and temporally. Risk evaluation must also include, as a minimum, evaluating the seriousness, manageability, urgency, and growth potential of the wildfire hazard/risk. Risk evaluation should be used to determine whether the individual hazard/risk should be mitigated. Risk evaluation and risk-informed decision making should be done using a consensus approach involving a range of key stakeholder groups.	3. Risk Evaluation & Prioritization	7.1
8. Risk mitigation and management	Identify which risk management strategies are appropriate given practical constraints such as limited resources, costs, and time. The electrical corporation must indicate the high-level risk management approach, as determined in Step 7.	4. Risk Mitigation Plan Development & Documentation	7.2
8. Risk mitigation and management	Identify risk mitigation initiatives (or a portfolio of initiatives) and prioritize their spatial and temporal implementation. This step includes consideration of what risk mitigation strategies are appropriate and most effectively meet the intent of the WMP goal(s) and plan objectives, while still in balance with other performance objectives. Include the procedures and strategies to develop, review, and execute schedules for implementation of mitigation initiatives and activities	5. Risk-Informed Investment Decisions & Risk Mitigation Implementation	8 9
	Monitor and evaluate mitigations. Determine effectiveness of plan to inform ongoing risk management.	6. Monitoring & Review	10 11 12

Renovation of the WCRC also included updating technology that was outdated and unable to support the situational capabilities necessary to continue with ongoing wildfire and PSPS risk reduction. My direct testimony describes the technological innovations supporting situational awareness and advanced weather monitoring capabilities that are housed within the WCRC.[55] Additionally, SDG&E responded to a data request discussing the outdated technology in SDG&E's previous EOC and the need to modernize with state-of-the-art technology to accommodate increasing complexities of emergency operations.[56]

The previous EOC, built more than two decades ago, was insufficient to meet the current and expanding needs of Emergency Management. Since 2017, the complexities of managing emergencies and coordinating with Local, State, and Federal response organizations have increased exponentially. For example, the PSPS Rulemaking Proceeding established additional requirements to notify customers and community stakeholders before, during, and after PSPS

[55] Ex. SDG&E-T3-WMPMA-01 (Woldemariam) at JW-79.

[56] SDG&E's Responses to Data Request Number PAO-SDG&E-417-WY2 (June 27, 2025) at Q.1d.

events. These new regulations require more resources and subject matter experts working in direct contact with each other to prepare for, respond to, and recover from emergencies that affect our communities. The new EOC in the WCRC is built to meet current and expected future needs, including future technological advancements to situational awareness tools, data visualization platforms, and communication tools. This state-of-the-art technology will support implementation of the Company's emergency management operations, now and for years to come.

As described above, these technologies directly support WMP activities such as Situational Awareness and Forecasting and Emergency Preparedness (including PSPS) as they are defined categories in the 2023-2025 WMP Technical Guidelines. Energy Safety stated in its approval of SDG&E's 2023-2025 WMP that SDG&E is "strong in its… situational awareness, emergency preparedness, and community outreach and engagement"[57]

3. SDG&E Has Fully Supported Costs Associated with the Wildfire and Climate Resilience Center

Cal Advocates asserts that SDG&E's recovery request of $14.435 million is only supported by documentation amounting to $12.708 million. Cal Advocates contends that only 43 invoices substantiate the costs incurred in 2023, falling short of the requested amount. They recommend that the Commission approve the recovery of only $6.354 million, which represents 50% of the 2023 costs.

SDG&E disagrees with Cal Advocates' assertions regarding insufficient documentation and that only 2023 costs should be eligible for recovery. SDG&E provided detailed invoices supporting the WCRC construction costs that substantiate its recovery request. The amount of capital expenditures in 2023 provided on the invoices is $13.724 million. Cal Advocates math—and thus its recommendation—is incorrect because it does not accurately reflect the gross amounts listed in some invoices.

SDG&E should also be able to recover the cost of the entire WCRC, which includes expenditures in years prior to and after 2023. Large capital projects like the WCRC often involve planning, procurement, and construction phases that span multiple years. SDG&E is requesting

[57] Office of Energy Infrastructure Safety, 2023-2025 Wildfire Mitigation Plan Technical Guidelines (December 6, 2022), available at: https://energysafety.ca.gov/what-we-do/electrical-infrastructure-safety/wildfire-mitigation-and-safety/wildfire-mitigation-plans/2023-wildfire-mitigation-plans/

the full costs of this capital project as of the date it entered service, consistent with principles of utility ratemaking. The invoices from 2021, 2022, and 2024 reflect preparatory and trailing costs, which are common and necessary for project completion.

SDG&E maintains that its cost recovery request aligns with its 2023-2025 Base WMP, which identifies the WCRC as a crucial infrastructure investment. Furthermore, SDG&E did not request to recover the cost of the WCRC in Track 1 of the Test Year 2024 GRC[58] because it had expected to finish construction in 2023, and would therefore be recovered in the Track 3 proceeding. Therefore, SDG&E believes it should therefore be allowed to recover these costs in the current proceeding.

C. Other Direct & Indirect Costs Should Be Authorized for Recovery

1. Distribution OH Detailed, Distribution Wood Pole Intrusive, and Distribution OH Patrol Inspections

Cal Advocates argues that SDG&E's use of a single funding source code (FS 239) for three initiatives - Distribution Overhead Detailed Inspections (WMP.478), Distribution Wood Pole Intrusive Inspections (WMP.483), and Distribution Overhead Patrol Inspections (WMP.488) - leads to issues with traceability across workpapers and prevents Cal Advocates from evaluating the costs. Therefore, Cal Advocates recommends that the Commission disallow $17.215 million in both direct and indirect costs related to these initiatives.[59]

SDG&E disagrees with Cal Advocates' argument that the use of a shared funding source code leads to lack of transparency. Cal Advocates correctly identifies that SDG&E's inspection programs—patrols, detailed inspections, and wood pole intrusive inspections—are distinct in terms of methodology, personnel, and scope. However, their conclusion that capital costs associated with these programs are unsupported due to shared budget coding is misguided.

Budget Code 239 is not utilized to track expenditures related to inspection activities themselves. Rather, it is specifically designated for capital repair work identified through various inspection efforts—including patrols, detailed inspections, and wood pole intrusive inspections—conducted within the HFTD. As outlined in SDG&E's 2019 GRC, funding was authorized for the GO 165: *Distribution Inspect and Repair Program*, a mitigation encompassing

[58] Ex. SDG&E-13-CWP-2R-E, *Second Revised Capital Workpapers to Prepared Direct Testimony ofJonathan Woldemariam on Behalf of San Diego Gas & Electric Company* (May 2023) at 384.

[59] Ex. CA-04 (Kang) at 13.

multiple inspection and repair activities. The 2023-2025 Base WMP then introduced multiple distribution inspection programs, including the three aforementioned, and incorporated the corrective repair work within those three programs. Therefore, costs are tracked and recorded consistent with how they were authorized in the GRC and then allocated accordingly to align with how the programs are distinguished in the WMP. My direct testimony reflects the allocation of costs from a single funding source amongst the three distinct programs for illustrative purposes. This approach ensures transparency in cost tracking and aligns with regulatory expectations for linking mitigation expenditures to their originating activities.

Inspection activities themselves are classified as operational expenses (O&M) and are tracked separately using distinct internal order numbers. Accordingly, the presence of Budget Code 239 in capital cost documentation does not indicate a misclassification of inspection-related costs. The use of a shared funding source for capital-related repair work simplifies cost aggregation and promotes consistency across departments. Grouping such repair work – identified through the three initiatives - under a single funding source enables SDG&E to manage a coordinated repair program, enhancing operational efficiency and reducing administrative overhead.

Importantly, this internal coding structure does not impede external auditability. SDG&E's accounting practices clearly differentiate between O&M and capital expenditures, and the use of Budget Code 239 is both appropriate and consistent with regulatory expectations.

Therefore, Cal Advocates' recommendation to disallow capital costs based on an alleged lack of documentation should be rejected. The documentation and cost tracking mechanisms in place are sufficient, transparent, and aligned with both the 2019 GRC authorization and SDG&E's 2023 Wildfire Mitigation Plan.

2. SDG&E provided substantial documentation for the O&M costs for its wildfire initiatives

Cal Advocates claims that SDG&E failed to provide accurate data substantiating the O&M costs associated with the following initiatives:

Initiative Title	WMP ID	Total O&M Cost
Advanced Protection	WMP.463	$0.232
Distribution Overhead System Hardening	WMP.475	$1.094
Avian Protection Program	WMP .972	$0.010

Initiative Title	WMP ID	Total O&M Cost
Distribution OH Detailed Inspections	WMP.478	$0.792
Transmission OH Detailed Inspections	WMP.479	$0.035
Distribution OH Patrols	WMP. 488	$0.330
Lightning Arrestor Replacement	WMP.550	$0.085
Total ($000s)		$2.578

It recommends that the Commission disallow recovery of O&M costs associated with these initiatives, totaling $2.578 million[60]. SDG&E submitted the relevant O&M line-item detail in response to Question 1,Attachment 8, which included the cost data for the initiatives listed above.[61] While Cal Advocates claims it could not locate the relevant entries via filter search, it did not request any clarification or guidance from SDG&E on how to review these initiatives in the O&M data file. Cal Advocates' recommendations are thus based on an erroneous interpretation of the data and should be disregarded.

Further, SDG&E made itself available to Cal Advocates on numerous occasions to assist in understanding and sorting the data provided, precisely to avoid these misunderstandings and promote an accurate review. If the data appeared unclear or difficult to trace, Cal Advocates could have sought clarification before assuming non-compliance or recommending disallowance. This is inconsistent with its approach in other data requests, where Cal Advocates sought and received clarification when needed. Had Cal Advocates reached out for assistance, SDG&E would have promptly provided the necessary instructions to identify the relevant cost entries. The failure to locate the data was not due to a lack of transparency or documentation on SDG&E's part, but rather a lack of follow-up by Cal Advocates. SDG&E maintains that the mentioned O&M costs are well-documented, incremental and directly tied to wildfire mitigation activities.[62] SDG&E respectfully requests that the Commission reject Cal Advocates' recommendation to disallow these costs as their conclusion was premature and not fully substantiated.

[60] Ex. CA-03 (Yang) at 19-21 and Ex. CA-04 (Kang) at 12.

[61] See SDG&E-T3-WMPMA-04-WP2.

[62] See SDG&E-T3-WMPMA-04-WP1.

3. Reasonableness of Aviation Firefighting Expenditures

Small Business Utility Advocates ("SBUA") recommends the disallowance of costs associated with Aviation firefighting stating that SDG&E "does not justify its aerial suppression expenditures…" and "has not justified year-around aerial suppression funding."[63] It goes on to say that "The wide variance in the rate of change of O&M and capital expenditures strongly suggests that SDG&E is obtaining more helicopters but not demonstrating it is making extensive use of them."[64] However, as explained in my Direct Testimony, enabling year-round fire suppression activities directly enhances the safety of our communities and ensures rapid response capabilities to protect infrastructure.[65]

As discussed in SDG&E's Track 2 rebuttal, any wildfire in the service territory can threaten the safety of surrounding communities, negatively impact energy reliability due to affected infrastructure, and complicate restoration efforts. For these reasons, it is critical for SDG&E to have available and utilize its aerial firefighting assets. SBUA also fails to recognize that "fire season" has become a year-round issue, as acknowledged by California's Office of Emergency Services,[66] and evidenced by the fact that the largest and most destructive fires in California history, the LA fires, occurred during the cooler winter months. SBUA cites to no evidence to support its claim that "any diversion of SDG&E-territory firefighting assets is unlikely to occur outside of peak fire season,"[67] but even if that were the case, it only underscores the need for SDG&E to be prepared year-round.

SDG&E's 2023-2025 Base WMP extensively discusses the capabilities of its aerial firefighting resources – two Type 1 firefighting helitankers defined as carrying over 700 gallons of water. These assets are made available throughout the year and throughout the service territory and are dispatched when needed by CAL FIRE. Availability of the assets 365 days per year is critical to the region and the communities we serve, especially when CAL FIRE

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[63] Ex. SBUA-T3-01 (Strauss) at 6.

[64] *Id.* at 7.

[65] *See* Ex. SDG&E-T3-WMPMA-01 (Woldemariam) at JW-75.

[66] California Governor's Office of Emergency Services, *As Wildfire Season Becomes Year-Round, Cal OES Encourages all Californians to Prepare* (August 21, 2024), *available at:* https://news.caloes.ca.gov/as-wildfire-season-becomes-year-round-cal-oes-encourages-all-californians-to-prepare/

[67] Ex. SBUA-T3-01 (Strauss) at 7.

contracted resources are unavailable. Typically, CAL FIRE will increase its resources during months that tend to experience extreme weather conditions such as Red Flag Warning (RFW) and elevated or extreme Fire Potential Index ("FPI") days and reduce its contracted aerial resources in other months. The availability and utilization of SDG&E's aerial firefighting assets is provided as Appendix 5, which shows the 2023 flight log for the Type 1 helitankers. These suppression resources dropped over 360,000 gallons of water in 2023, which is below average and due, in part, to favorable weather conditions in that year. In 2024, the helitankers dropped more than 1,000,000 gallons of water, further demonstrating that the activities, and therefore costs, are reasonable in that they directly benefit customers by further mitigating propagation of wildfires, regardless of the cause of the ignition.

SBUA also presents a flawed analysis to support its unsubstantiated claim that the rate of change for O&M and capital expenditures suggests that SDG&E is acquiring more helicopters and not utilizing them. The discussion above demonstrates the ongoing utilization of the assets and the corresponding O&M costs. But the associated capital costs were not necessarily incurred on new assets; rather, they are related to upgrades made to the Twin Engine Medium Lift helicopter and land acquisition utilized for aviation training. The Twin Engine Medium Lift helicopter - capable of lifting and transporting up to 3,500 pounds of equipment and materials, including Human External Cargo (HEC) - is utilized for assisting with large infrastructure projects in the HFTD directly in support of wildfire mitigation activities. Use of this asset helps drive efficiencies with timely material transport needed for mitigations like installation of covered conductor and pole replacements. The asset is also used for HEC and capable of hoisting personnel as needed for wildfire mitigation work. The training area allows for aviation training in a controlled environment, meets the needs of the HEC training program, and allows continual research and development of drones. Training exercises are conducted to ensure safe and proper operations of wildfire mitigation activities described in Mr. Woldemariam's testimony. For example, drone pilots who perform RIDI inspections are trained in this area on the safe and proper use of multiple types of drone devices. The HEC training program promotes safe and reliable use of HEC for transmission wildfire mitigation activities such as performing transmission inspections and corrective work.

For these reasons, SBUA's claims should be disregarded and the costs associated with this program should be recovered.

4. Distribution Communications Reliability Improvements

The Utility Reform Network (TURN) challenges the incrementality of work, and therefore spend, related to Distribution Communications Reliability Improvements stating, "SDG&E labels its LTE Communication Network initiative as "expanded" from the GRC, but it performed fewer units of work than what was authorized in the GRC; it is difficult to understand why the utility should recover any of its $32.163 million in capital overspending on this activity when it built fewer HFTD stations than forecast."[68] It also argues that the allocation of spend "should be allocated in part to the non-WMP activities the network supports."[69] There are two major flaws with TURN's claims here. The first is that it disregards the fact that SDG&E performed the work authorized in the 2019 GRC, so thus the presented costs are incremental to authorized, and the second is that it is misunderstanding the incrementality and use of the Spectrum license purchase.

Appendix 2 of my Direct Testimony clearly demonstrates that SDG&E successfully installed ten base stations to enable communications for wildfire mitigation technologies.[70] TURN erroneously fails to acknowledge the six base stations that were installed outside of the HFTD and is unreasonably isolating SDG&E's work to the four base stations installed within the HFTD. This judgement lacks rationale and reason because, as discussed previously in this Rebuttal, the non-HFTD stations provide the foundation for the network of coverage within the HFTD.[71] Communications technology is analogous to traffic. Major highways are built that traverse multiple counties enabling commuters to travel seamlessly between counties and with multiple route options. Similarly, the DCRI pLTE network in question here allows sensors monitoring lines within the HFTD to communicate back to a station that may be outside of the HFTD. Regardless of where that station is physically located, it should be understood that the mitigating activity is the ability to sense anomalies within the HFTD and communicate that

[68] Ex. TURN-02, *Prepared Testimony of Sylvie Ashford Addressing Incrementality Issues in "Track 3" of San Diego Gas and Electric Company's 2024 General Rate Case* (July 14, 2025) ("Ex. TURN-02 (Ashford)") at 4.

[69] Ex. TURN-01 (Finkelstein) at 18.

[70] An updated version of Appendix 2 to Ex. SDG&E-T3-WMPMA-01 (Woldemariam) is attached here as Appendix 2. This updated version reflects corrections that were identified in the process of responding to discovery requests.

[71] See Ex. SDGE-T3-WMPMA-04 (Woldemariam) at Appendix 3.

information back to where it can be processed. Therefore, TURN's claim that SDG&E performed less work than authorized should be disregarded as Appendix 2 clearly shows that is false.

Further, the incrementality consideration is one that should be considered in the context of the Spectrum purchase. TURN correctly notes that SDG&E's Test Year 2019 GRC indicated the LTE Communications Network would support wildfire mitigation efforts. It also correctly identifies that the Spectrum purchase represents approximately $32 million of the $46.5 million in "Actual Capital," and nearly all of the $32.163 million in "Differential Capital."[72]

As clarified in Mr. Woldemariam's testimony and Appendix 2, the authorized spend in the 2019 GRC was allocated to the construction of ten base stations. The Spectrum purchase itself was not contemplated in that filing, making the associated capital spend incremental. The $32 million used for the Spectrum acquisition is fully dedicated to enabling the private LTE (pLTE) network, which directly supports wildfire mitigation technologies.

While TURN suggests the Spectrum may be used for broader purposes based on the 2019 GRC, SDG&E has allocated the full cost of the Spectrum purchase to the WMPMA, as its use is exclusively tied to wildfire mitigation. The Spectrum license enables capabilities that would otherwise be unavailable, reinforcing its critical role in SDG&E's wildfire mitigation strategy. Some of the advantages of DCRI include:

- Providing communications where traditional carriers do not have communications: Typically, in remote areas of the HFTD, cellular carriers do not provide coverage or there is spotty coverage. During emergency events, coverage from cellular carriers can either be overloaded or completely down, depending upon the emergency. Spectrum provides cellular communication in the HFTD, ensuring that the monitoring and recovery devices are operating and communicating at all times.
- Ability to quickly mobilize coverage where and when needed.
- Ability to control devices, capabilities and bandwidth needs on the network communications, therefore avoiding any overload and/or outage issues traditionally seen during emergency and PSPS events.

[72] Ex. TURN-01 (Finkelstein) at 18.

- Secure transmissions: As a utility monitoring critical infrastructure across the HFTD, having privately-owned spectrum allows for stronger cyber security posture, ensuring our communications are secure and absolute. This contained environment restricts nefarious actors into the communication network and ensures information is accurate and true.

As established elsewhere in my Rebuttal, the costs associated with the DRCI iniative are reasonable and incremental, and should be recovered in full.

5. Pole Brushing

Cal Advocates recommends the removal of $8.045 million in spend related to pole brushing activities on the basis that "they are already funded within SDG&E's GRC."[73] While they are correct in that some costs were authorized in the 2019 GRC, they fail to recognize that the authorized $4.374 million are not included in this request and SDG&E is only seeking the incremental spend. Table JW-62 in my Direct Testimony and Appendix 2 clearly illustrate the differential spend relevant to this request.[74] The incremental $3.671 million can be attributed to an unanticipated increase in labor rates for pole clearing contractors introduced and required in SB 247, which became effective January 1, 2020. SDG&E could not have anticipated this rate increase at the time it developed its 2019 GRC, therefore, these costs are incremental. The Commission should also consider its Decision approving the undercollected balance in SDG&E's Tree Trimming Balancing Account (TTBA) for the years 2020-2021 as the increased costs were unavoidable and "a result of complying with SB 247."[75] The same is true in this case, and the costs should be authorized for recovery.

V. SDG&E'S STRATEGIC UNDERGROUNDING AND INSTALLATION OF COVERED CONDUCTOR IS REASONABLE AND SHOULD BE AUTHORIZED FOR RECOVERY

TURN and PCF challenge the reasonableness of costs associated with Strategic Undergrounding and Covered Conductor work performed in the HFTD. Specifically, TURN raises "fundamental concerns regarding the underlying SDG&E analysis using its Wildfire Next

[73] Ex. CA-02, *Report on the Results of Operations for San Diego Gas & Electric Company General Rate Case Test Year 2024* (July 14, 2025) ("Ex. CA-02 (Quam)") at 13.

[74] Ex. SDG&E-T3-WMPMA-01 (Woldemariam) at JW-67.

[75] D.24-06-003 at 11.

Generation System Planning (WiNGS-Planning) model"[76] used to inform selection and prioritization of the two initiatives in question and challenges SDG&E's use of RSE thresholds in its decision making.[77] PCF suggests that work performed in Tier 2 of the HFTD is not justified as Tier 3 presents a higher risk.[78] SDG&E has met its burden to demonstrate that it has performed the right work in the right place – optimizing portfolio costs and effectiveness of its risk-reducing mitigations - and its decisions for selecting and prioritizing its hardening work are guided by risk-informed decision-making principles and risk assessment regulation.

A. SDG&E's Risk Assessment Methodology and Prioritization for Work Performed in 2023 Met all Regulatory Requirements and Satisfies Risk Informed Decision-Making Principles.

SDG&E strongly disagrees with TURN's challenge to 2023 capital expenditures related to covered conductor and strategic undergrounding work. TURN's attempt to introduce the Commission's recent discussion about possible deficiencies in the WiNGS-Planning model[79] is unproductive and overlooks the prioritization and scoping efforts SDG&E employed after introduction of wildfire legislation. As discussed in my Direct Testimony, SDG&E responded to SB 901 and AB 1054, which required the state's electrical corporations to "invest in hardening of the state's electrical infrastructure and vegetation management to reduce the risk of catastrophic wildfire,"[80] in a manner consistent with the urgent wildfire risk facing California. At that time and upon the introduction of required Wildfire Mitigation Plans, SDG&E made immediate progress in improving its understanding of wildfire and PSPS risk present in its territory at the circuit segment level, and used that information to evolve its Wildfire Risk Reduction Model (WRRM) into the first version of its WiNGS-Planning model. The development of the model was guided by and adhered to regulatory risk framework requirements introduced in RAMP and S-MAP proceedings and incorporated the use of risk-spend efficiencies as one factor in evaluating effectiveness of alternative mitigations. This model was then used to inform selection and prioritization of wildfire and PSPS risk reduction mitigations for subsequent years, including

[76] Ex. TURN-01 (Finkelstein) at 3.

[77] *Id.* at 17.

[78] See Ex. PCF-47, *Prepared Direct Track 3 Testimony of Bill Powers, P.E. on Behalf of The Protect Our Communities Foundation* (July 14, 2025) ("Ex. PCF-47 (Powers)") at 10.

[79] Ex. TURN-01 (Finkelstein) at 3.

[80] AB 1054, Stats. 2019-2020, Ch. 79 (Cal. 2019) at Sec. 2.

2023. SDG&E made its best attempt with the data, capabilities, and technology available at the time to select, prioritize, and implement the optimal risk-reducing and cost-effective mitigation measure, segment by segment.

TURN further argues that "SDG&E has failed to sufficiently address or explain [its RSE thresholds] with regard to its decision-making for its Covered Conductor and Strategic Undergrounding initiatives."[81] TURN essentially advocates that SDG&E should have deferred some of the most important wildfire and PSPS risk reduction programs until parties could universally agree on the perfect risk model. While perhaps such an approach would have been ideal, it was simply impossible given the need to rapidly implement programs and the complexity and nature of scoping comprehensive grid hardening, which often requires years of lead time.

SDG&E remained and remains committed to ongoing understanding of risk in its service territory and implementing risk reduction in areas where it is cost-effective. Importantly, the risk assessment presented in SDG&E's 2023–2025 Base WMP incorporated lessons learned and responded to deficiencies from the prior 2020–2022 WMP cycle, including Areas for Continued Improvement ("ACI") from WSD-002,[82] WSD-005,[83] WSD-019,[84] and SDG&E's 2022 WMP Update Decision[85] and focused on streamlining pre-construction activities to find efficiencies and reduce overall program costs. Of the 28 areas of continued improvement and deficiencies related to risk assessment identified between 2019 and 2022, as outlined in Appendix 4, three specifically pertain to SDG&E's use of Risk Spend Efficiencies (RSEs) in decision-making for its Covered Conductor and Strategic Undergrounding initiatives:

- **SDGE-22-14**: Grid Hardening Decision-Making Process Transparency
- **SDGE-22-15**: Undergrounding Risk-Spend Efficiency Demonstration

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[81] Ex. TURN-01 (Finkelstein) at 17.

[82] Wildfire Safety Division ("WSD") 002, *available at*:https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M340/K883/340883294.pdf

[83] WSD 005, *available at*: https://energysafety.ca.gov/wp-content/uploads/docs/wmp-2020/docs/340953513.pdf

[84] WSD 019, *available at*: https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M401/K606/401606125.pdf0Action%20St

[85] SDGE 2022 WMP Update Decision, *available at*: https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=52635&shareable=true

- **SDGE-22-28**: Improvements to the RSE Verification Process

SDG&E addressed these areas by adhering to all regulatory risk requirements, and Energy Safety considered the actions taken to be sufficiently responsive to the required progress. As described in the Risk Assessment Mitigation Phase (RAMP), RSEs are quantitative metrics designed to reflect changes in risk scores per dollar spent. SDG&E's RSEs were calculated in accordance with the RAMP RSE methodology in place at the time, as outlined in the SDG&E RAMP-C Risk Quantification Framework and Risk Spend Efficiency (May 17, 2021, page C-26). These calculations adhered to all regulatory risk requirements and were not tailored to produce a predetermined outcome. Further, SDG&E did not use RSEs as the sole basis for capital decision-making. Rather, RSEs serve as one of several inputs to ensure wildfire mitigation activities are effective in reducing risk.

Additionally, parties point to these identified Areas for Continued Improvement as evidence that the programs were not authorized or the targets were not part of the approved WMP. Not so. The Commission should not incorrectly rely on Energy Safety's directions regarding Areas of Continued Improvement to imply a finding that Energy Safety somehow disputes the cost effectiveness of SDG&E's undergrounding program, or that the program was unreasonable. These ACIs, rather, call on SDG&E to further vet programs and provide additional information in upcoming WMPs.[86] SDG&E has exhaustively litigated and proven well beyond a preponderance of the evidence that its strategic undergrounding program provides a targeted, cost-effective hardening solution that nearly eliminates both wildfire and PSPS risk. Particularly for communities who face significant PSPS risk, strategic undergrounding is a reasonable solution and these costs should be approved.

To ensure transparency and integrity, SDG&E engaged a third-party firm to conduct an independent review of the RSE methodology, data governance, and completeness. This review included a comparative analysis of 2022 and 2023 RSEs, and evaluated 36 WMP programs across multiple iterations. The review assessed data quality (completeness, traceability, accuracy,

[86] In addition, a list of risk modeling and assessment deficiencies identified by the Wildfire Safety Division ("WSD") and Energy Safety and SDG&E's responses is provided in Appendix 4 to this testimony, and demonstrates SDG&E's commitment to continuously improving its understanding of risk. Furthermore, independent review of the WiNGS-Planning model confirmed that the model is robust, well-documented, and effective for capital planning. It meets industry best practices for advanced analytics and machine learning, and supports cost-effective, risk-reducing investment decisions.

consistency) and methodology (process design, qualification, and verification), resolving over 58 issues through an iterative process. SDG&E has since implemented internal systems to track changes in RSE methodology, validate data inputs, and improve documentation of data sources. SDG&E's use of RSEs in WiNGS was grounded in regulatory methodology, subject to independent review, and part of a broader, multi-factor decision-making process. These improvements and transparency were ultimately recognized in Energy Safety's approval of SDG&E's 2025 WMP Update; while in the decision approving SDG&E's 2023-2025 Base WMP, Energy Safety noted deficiencies in SDG&E's explanation for model assumptions, SDG&E provided those explanations in its 2025 update:

> In its 2025 Update, SDG&E provided its WiNGS-Planning model risk mitigation selections, including all the variables Energy Safety required. SDG&E also provided more insight into how it values mitigations such as covered conductor versus undergrounding.
>
> SDG&E stated that its current system relies heavily on Public Safety Power Shutoffs (PSPS) and situational awareness interventions to mitigate risk. SDG&E also stated that it plans to utilize the WiNGS-Planning model to decrease both wildfire risk and PSPS de-energization. SDG&E stated that the WiNGS-Planning model anticipates a portfolio of around 1,500 miles of undergrounding and 370 miles of covered conductor installations between 2022 and 2032.
>
> SDG&E provided the iterative steps for each part of its mitigation selection process, including how and when undergrounding and covered conductor are considered for targeted circuit segments. SDG&E first compares each mitigation's RSE estimates to its RSE threshold to decide which of its circuit segments qualify for covered conductor or undergrounding.
>
> After establishing the RSE thresholds for undergrounding and covered conductor, SDG&E implements a decision tree to decide which mitigation to evaluate in the final model output. SDG&E also provided a copy of this decision tree in its 2025 Update. Once the WiNGS planning model supplies a recommendation, SDG&E scoping engineers perform [sic] a desktop feasibility study (that includes PSPS) to weigh the practicality of this mitigation recommendation in the final step of SDG&E's mitigation selection process.
>
> In addition to explaining all the steps in its mitigation selection process, SDG&E also provided insight into how its WiNGS planning model utilizes different drivers to determine the effectiveness of undergrounding versus other mitigations. For example, SDG&E stated that the WiNGS planning model incorporates a location-specific driver ignition analysis that utilizes an ignition rate normalization process. This process begins with the annual ignition rate in the high fire threat district (HFTD), then adds in variables such as hardening percentages, wind gusts, asset health, and tree strike potential.[87]

[87] Energy Safety Approval of SDG&E's 2025 WMP Update at 19-20.

Based on this comprehensive presentation of the data and model process, Energy Safety found that SDG&E provided all the information required and required no further reporting on the issue.[88]

It is important to recognize that SDG&E acted and reacted prudently, given the urgency of the legislation and the state's call to action for utilities to act immediately. SDG&E did not wait for uncontested and unchallenged models to scope and deploy its grid hardening mitigations, as that would have been imprudent and unreasonable. Rather, it "responded to California's call to action with large-scale infrastructure hardening efforts, including strategic undergrounding, [and] expanded use of covered conductor…"[89]

The challenged expenditures should be authorized for recovery as they are associated with grid hardening measures that were risk-informed and data-driven, aligned with regulatory expectations as stated at the time, and essential to achieving wildfire risk reduction and promoting public safety.

B. Tier 2 of the HFTD, by definition, is among the highest risk areas in SDG&E's service territory.

Contrary to PCF's assertions, SDG&E's selection of circuit segments for strategic undergrounding and grid hardening was risk informed and directly aimed at the highest risk areas of its service territory to reduce wildfire and PSPS risk. Simply because a segment is in Tier 2 does not necessarily imply that segment is lower risk.

As explained in my Direct Testimony, "SDG&E's undergrounding in 2023 was prioritized in areas with the highest risk. Approximately 52% of strategic undergrounding work in 2023 was performed on the 100 highest risk circuit segments." This does not imply that the 100 highest risk segments are in Tier 3 only, nor does it imply that segments ranked below the top 100 and/or within Tiers 2 and 3 of the HFTD are not high risk or void of risk altogether. In fact, 18 of the top 100 highest risk segments in SDG&E's service territory are in Tier 2.[90] In fact, many fires from the 10 years prior to the 2023 WMP ignited within Tier 2 of the HFTD, including the majority of the May Firestorm of 2014 (including Poinsettia, Cocos, and

[88] *Id.*

[89] See Ex. SDG&E-T3-WMPMA-01 (Woldemariam) at JW-4.

[90] This metric is based on the 2023 baseline risk and the circuit segments assessed at that time.

Bernardo), large fires on Camp Pendleton, and the Lilac Fire in 2017. It is worth noting that the Dixie Fire, which remains the largest single fire in California's history, began in Tier 2 of the HFTD and was attributed to power lines.

SDG&E's hardening programs prioritized circuits with the highest risk, but also recognized that wildfires can and do occur outside of Tier 3 of the HFTD. Areas within Tier 2 and the WUI have the potential to support the spread of wildfire that can impact our customers and while fire suppression and the supporting technologies continue to advance, SDG&E strives to mitigate the risks associated with its electric infrastructure.

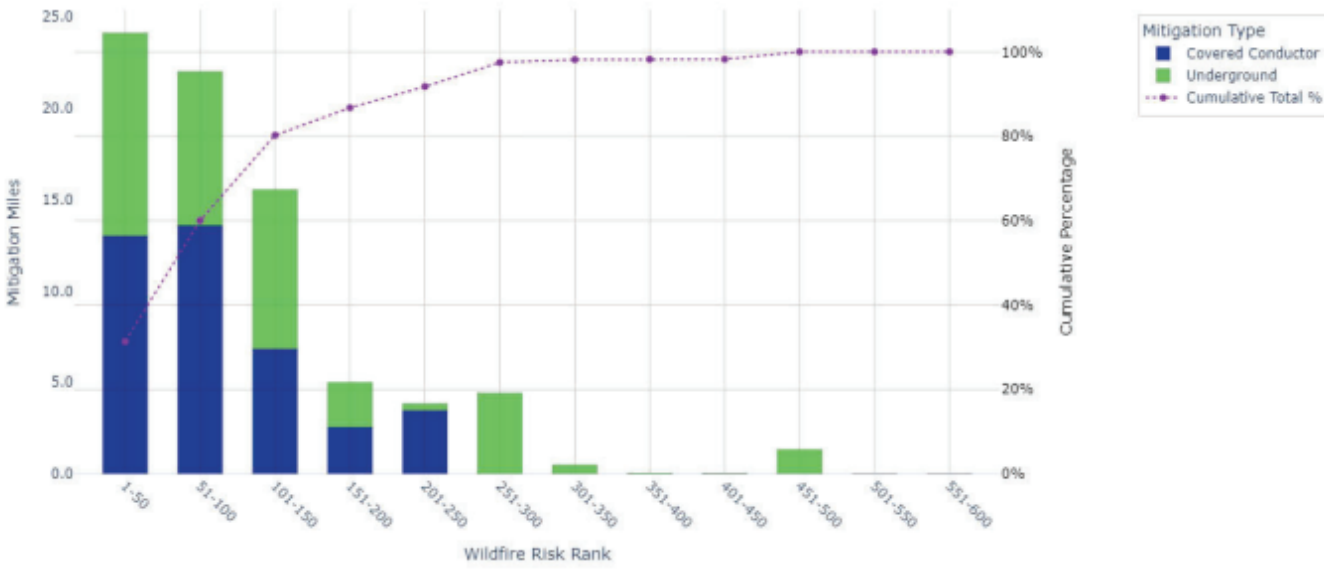
C. The Strategic Undergrounding and Covered Conductor work performed is reasonable and justified.

First, PCF's assertion that undergrounding and covered conductor work performed in Tier 2 is not justified lacks an understanding of SDG&E's more granular, segment-level risk analysis that incorporates more factors than simply the tier designation. A more appropriate risk assessment, and one employed by SDG&E, is to assess likelihood and consequence – total overall risk - for every circuit segment, regardless of tier designation. HFTD tier designations as defined by the CPUC and CAL FIRE are approximate coarse-grained risk zones that do not serve as direct inputs into SDG&E's more granular circuit-segment wildfire risk framework within the WiNGS-Planning model. The circuit-segment risk assessments are used to inform decision making in how best to reduce the risk posed by wildfire and PSPS to communities and customers. The segment level risk assessments are quantified by modeling a combination of asset, weather, vegetation, customer, and fire simulation data to predict the likelihood and consequence of a risk event at a given circuit-segment location. This more granular evaluation of risk is both more reasonable and more prudent than relying solely on a tier designation to determine where to perform work. PCF's conclusion that grid hardening work should be reserved for Tier 3 is ill-informed, incorrectly assumes that the highest risk segments are all in Tier 3, and disregards the integrity of the regulatory process to continuously improve and mature in risk understanding.

Figure JW-3 below demonstrates the distribution of covered conductor and undergrounding work performed in the context of wildfire risk-ranked circuit segments. This demonstration is evidence that SDG&E strategically prioritized and addressed its highest risk-

ranked segments between the two mitigations, which comprised segments both in Tier 2 and Tier 3 of the HFTD.

Figure JW- 3: 2023 Mitigation Miles by Wildfire Risk Ranking



Second, all SUG work completed in 2023 was performed on circuits within the top 26 highest PSPS risk-ranked circuits, representing the top 3% of all circuits across SDG&E's territory. Nearly all CC and SUG work in 2023 was prioritized within the top 40 highest PSPS risk-ranked circuits, or the top 4% of circuits. The segments completed within these circuits were selected based on a comprehensive risk assessment framework that considers wildfire likelihood, PSPS frequency, historical weather patterns, and community vulnerability.

Up through 2023, every circuit targeted for work had previously experienced at least one PSPS de-energization event. For instance, Circuit 157 had undergone more than 10 separate PSPS events prior to 2023, totaling over 23K minutes of de-energization. Approximately 90% of all grid hardening work in 2023 was concentrated in the high-risk communities of Potrero (C448), Santa Ysabel (C222), Campo (C445), Ramona (C972), and Dulzura (C157), all located within Tier 3 HFTD zones. These efforts also directly impacted several tribal communities, such as the San Pasqual, Cuyapaipe, Viejas, La Jolla, Santa Ysabel, Mesa Grande, Campo, and Jamul Indian Village Reservations.

These areas have experienced repeated PSPS events and are characterized by elevated wildfire risk due to topography, vegetation, and wind exposure. Importantly, analysis of PSPS data from 2019–2021 and 2023–2025 shows a measurable reduction in both the frequency and duration of PSPS events following CC and SUG mitigation. For instance, Circuit 1030 saw a decrease in PSPS events from 8 to 5 post mitigation, with the number of impacted customers decreasing from approximately 4,000 to 2,300. This trend highlights the direct impact of targeted grid hardening on improving reliability and reducing customer disruption in high-risk areas. For example, on Circuit C448:

- +25 miles of Covered Conductor was installed in 2023.
- The circuit is located in Tier 3 HFTD, crosses Campo Reservation tribal land, and ranks as the 5th highest PSPS risk circuit and 3rd highest wildfire likelihood circuit.
- It previously contained over 40 miles of exposed, unhardened overhead infrastructure.
- A total of 2,644 residential and 603 commercial customers were identified as susceptible to PSPS risk due to historically high wind conditions (>50 mph).

These metrics demonstrate that SDG&E's grid hardening efforts were not only reasonable but strategically targeted to reduce wildfire risk and PSPS impacts in the most vulnerable communities. The prioritization methodology aligns with regulatory expectations and reflects both a cost efficient and reasonable use of ratepayer funds. For the aforementioned reasons, and as further discussed elsewhere, SDG&E's grid hardening costs should be approved in full.

VI. SDG&E'S LABOR AND OVERHEADS FOR WMP INITATIVES WERE INCREMENTAL AND REASONABLE

SDG&E hired thirty-five new employees between 2019 and 2022 and maintained those employees in 2023. Cal Advocates recommends removing costs associated with incremental new employees because "SDG&E could not confirm if new hires allocated 100% of their work to WMP initiatives."[91] Cal Advocates continues to misconstrue and misinterpret the evidence that SDG&E has put forward that, in addition to the 35 employees supporting wildfire mitigation in a

[91] See Ex. CA-04 (Kang) at 19.

full time capacity, SDG&E's workforce also supported incremental wildfire mitigation work through incremental labor and overheads.

As SDG&E explained in response to data requests, "Outside of the aforementioned new hires in the Wildfire & Climate Science division and the AFN department, SDG&E is not able to identify the hiring dates of additional employees charging labor to WMP-related activities, as they do so on an allocation basis and are not hired specifically for this purpose."[92] This is to say that the incremental new employees in Wildfire and Climate Science were hired specifically to support and implement wildfire mitigation initiatives. This is further addressed by Mr. Guidi.

As discussed at length in SDG&E's Track 2 and again in this Track 3, the increased responsibilities of wildfire safety, climate science, PSPS communications and awareness, and emergency response all necessitated additional labor unforeseen by SDG&E in its 2019 GRC. In response to the increased requirements and increased wildfire mitigation activities, SDG&E created altogether new departments and added FTEs to some existing departments. For example, SDG&E created the Wildfire Mitigation Department in mid-2019. The department had a total of 17 FTEs by the end of 2022 all of whom were maintained in 2023. The Wildfire Mitigation Department is made up of a Risk Analytics group with data scientists that develop risk models and conduct risk assessment, a Strategy group that develops new advancements, long-term mitigation strategies, including collaboration with other utilities and stakeholders, and a Programs and Compliance group with a focus on development of annual Wildfire Mitigation plans, data requests, Safety Culture Assessments, compliance reviews with Energy Safety and required WMP reporting. These positions all support operations and regulatory requirements that did not exist prior to SB 901 and ongoing development of the WMPs at the Office of Energy Infrastructure Safety.

Although not a new department, the Fire Science and Climate Adaptation department has increased by eight FTEs since mid-2019. These include a meteorology program manager and an operational meteorologist following the creation of SDG&E's new Wildfire & Climate Science Division, a climate adaptation advisor, a wildfire resilience operations project advisor, and two FTEs added to the Fire Coordination teams to assist with training and CalFire coordination during fire seasons of increasing length and fire frequency. Finally, an FTE was brought in from

[92] SDG&E's Response to Data Request Numbers PAO-SDGE-413-WY2 (June 12, 2025) at Q1.

academia as a numerical weather prediction scientist in the meteorology business unit to support situational awareness.

Largely in response to regulatory requirements such as Energy Safety's WMP guidelines and the Commissions' De-energization Rulemaking Proceeding, SDG&E Emergency Management added 10 FTEs since 2019, ranging in positions from manager, program manager, administrative assistant and specialist. These include:

- The Training & Exercise Manager role which is required to lead the development, implementation and management of comprehensive training and exercise strategies to effectively test emergency plans to achieve efficient and effective restoration of operations during emergencies, while ensuring compliance with all applicable regulatory and policy requirements.
- The Training & Exercise Program Manager which ensures the highest level of company preparedness as it relates to operational and financial response and recovery and leads company-wide emergency preparedness trainings.
- An administrative assistant who was hired to coordinate calendars and logistics.
- An Emergency Planning Program Manager role which was created to provide leadership across the enterprise to ensure that each organization is highly prepared to execute its response and recovery responsibilities during and after an emergency.
- The Emergency & Continuous Improvement Program Manager role which conducts after-action reviews after an emergency incident, Emergency Operations Center (EOC) activation, or training/exercise to assess opportunities for process improvement and communicate lessons learned.
- The Emergency Management & Field Incident Command System (ICS) Program Manager role which develops and delivers the field ICS training curriculum and supports the company's First Responder Outreach program.
- Four Aviation Flight Ops Base Specialists who were hired to perform flight monitoring of daily flight operations for the Aviation Services Department, maintaining oversight of all helicopters, UAS, and personnel working with aviation assets in the field and proactively addressing operational concerns.

In addition to the employees hired to develop and expand SDG&E's wildfire mitigation program, all of SDG&E's requested labor costs are incremental and should be approved without modification.

VII. PCF'S ATTEMPTS TO CONTINUALLY RELITIGATE A SOLAR PLUS STORAGE ALTERNATIVE SHOULD BE DISREGARDED

PCF's testimony restates several previously raised arguments related to Solar Plus Storage (SPS) alternatives.[93] PCF's arguments are flawed and fail to recognize that SPS, standing alone, is not a wildfire mitigation tool—SPS only benefits customers with those systems during a de-energization. Thus, the crux of PCF's arguments supports ongoing use of prolonged PSPS and hoping customers can hold out with a battery system. This argument should continue to be flatly rejected as it is inconsistent with the requirements of Public Utilities Code Section 8386, imposes an unreasonable burden on customers, and contradicts Commission and Energy Safety directives—as well as stakeholder requests—to reduce the use of PSPS and other risk mitigation tools that impact reliability.

In its Track 3 testimony, PCF compounds on its prior errors through a deeply flawed analysis of SDG&E's risk assessment, makes blanket and unfounded statements concluding that essentially none of SDG&E's WMP costs are just and reasonable and maligning SDG&E's motivations in its WMP implementation, and then proceeds to conclude with recommendations that programs such as covered conductor should be "discontinued," a recommendation well outside the scope of this proceeding.[94] PCF continues to let their preferred outcome—a 2019 Commission directive to implement broad use of SPS in SDG&E's service territory—bias their analysis. In light of these errors, PCFs testimony should not be given weight.

A. PCF's Risk Analysis and Review of Mitigation Effectiveness Lacks Merit

PCF incoherently performs an analysis of the cost effectiveness of initiatives by taking total spent on each mitigation and dividing that by the number of ignitions avoided—apparently deriving their own estimate of "Initiative Spending Per Ignition Reduced or Avoided."[95] This analysis is inconsistent with any proper risk assessment practices, the general standard for reviewing mitigation cost effectiveness during the time period in question (RSEs), and basic

[93] Ex. PCF-47 (Powers) at 3.

[94] *Id.* at 21.

[95] *Id.* at 16-17.

math. PCF's "amount spent per ignition reduced or avoided category" tallies up well over SDG&E's Track 3 request, and defies any known cost/benefit calculation approved of by the Commission. PCF's calculations are an inadequate and uninformed method for assessing cost effectiveness, because it puts the cart before the horse and basis risk assessment on a lagging indicator of ignitions avoided. Additionally, PCF inappropriately limits its risk analysis to the likelihood of an ignition and consciously disregards the potential consequence of ignition. While PCF dismisses the concept that ignitions have the potential to become catastrophic wildfires,[96] recent historical wildfires, including the Dixie, Lahaina, or Camp Fire fires have led to damages in excess of a billion dollars. Even assuming a wildfire of less historical impact, SDG&E anticipates that damages could exceed $350-$500 million in multiple locations across its service territory based on Technosylva simulations. PCF's failure to assess ignition consequence renders their analytical effort unhelpful and misleading.

Further, ignitions avoided has no bearing on several SDG&E initiatives because many WMP costs were incurred for other reasons, including but not limited to fire suppression, PSPS mitigation, situational awareness, or risk assessment.[97] SDG&E's risk assessment methodology properly looks at likelihood and consequence of ignitions to inform RSE development and assess cost effectiveness of mitigations. Where no RSE is available, SDG&E has adequately established the cost effectiveness of initiatives that serve as foundational to SDG&E's WMP.

Because PCF's analysis regarding cost per ignition avoided incorrectly reflects risk reduction, their recommendations should be disregarded.

B. SDG&E's Mitigations Are Cost Effective and Should be Found Just and Reasonable, Consistent with Commission Precedent

PCF uses its faulty risk assessment analysis to specifically object to mitigation measures they classify as "big ticket."[98] These include nearly *all of SDG&E's grid hardening programs*, including initiatives like covered conductor installation that nearly all parties agree reduce risk and are cost effective. Each of PCF's objections to SDG&E's covered conductor installation,

[96] *Id.* at 6.

[97] SDG&E, for instance, does not calculate an ignition risk associated with its generator initiatives because generators alone do not mitigate against ignition. They mitigate the impacts of PSPS. It is the de-energization that addresses ignition risk. *See* Ex. PCF-47 (Powers) at 18-21.

[98] Ex. PCF-47 (Powers) at 16.

strategic undergrounding, overhead hardening, and drone inspections of overhead infrastructure is inconsistent with SDG&E's obligation to harden infrastructure and founded in PCFs admitted bias toward an SPS alternative. The costs associated with these programs are all reasonable, reduce long-term ignition risk (contrary to PCF's short term measurement of effectiveness), and are consistent with the legislative mandate that California's "electrical corporations must invest in hardening of the state's electrical infrastructure and vegetation management to reduce the risk of catastrophic wildfire."[99]

C. Overhead Hardening Costs are Reasonable

PCF then incoherently also disputes the reasonableness of overhead hardening costs,[100] despite the fact that SDG&E's distribution overhead hardening efforts have been in place since long before 2019 and the practices—initially included in SDG&E's FiRM, PRiME, and WiSE initiatives—have been found reasonable by the Commission in D.19-09-051.

PCF also incorrectly characterizes this as merely a wood-to-steel program. For clarity, this mitigation program also includes replacing bare conductor, wood crossarms, guys, anchors, and insulators to meet more stringent requirements and extreme wind conditions. PCF also misrepresents the source document and the rationale behind SDG&E's steel pole selection per the 2020 SDG&E Wildfire Mitigation Plan,

> The new electric lines are designed to withstand working loads under the stress of 85 mph wind speeds, and in some specific cases, up to 111 mph, based on known local conditions. […] Steel poles are a more reliable construction material, giving more confidence in their designed strength, and are more resilient should a fire occur, leading to faster restoration times. These new steel pole facilities are being installed in conjunction with the application of higher strength conductors and increased spacing between lines, exceeding the requirements of GO 95, and resulting in a decrease in the likelihood of energized lines coming into contact with one another or arcing after being struck by flying debris.[101]

PCF's testimony lacks a comprehensive understanding of standard overhead line design principles. Steel poles and wood structures come in a variety of heights and sizes and are

[99] AB 1054, Stats. 2019-2020, Ch. 79 (Cal. 2019) at Sec. 2(b).

[100] PCF-47 (Powers) at 24.

[101] SDG&E's 2020 Wildfire Mitigation Plan (February 7, 2020), Section 5.3.3.17.1 at 86.

selected based on topological and electrical requirements. Poles are not assigned a wind rating, as the testimony suggests, rather structures are selected or designed based on structural load analysis. Most wood poles being replaced were designed and built before 2009 and were not selected to meet SDG&E's more recent loading standards of extreme wind (i.e., 85 mph or 111 mph), rather they were designed to meet light loading (i.e., 56 mph wind) if below 3,000 feet of elevation or heavy loading condition (i.e., 48 mph wind with ½ inch radial ice) if above 3,000 feet of elevation, as defined in GO 95.

The loads on individual structures vary significantly. Span length and wire selection make up 75-95% of the load, wind makes up 5-15% of the structure load, and unbalanced vertical loads and P-Delta loads make up the remainder.[102]

Due to the difference in material, steel poles are more resilient in high wind conditions than wood poles, over the life of the pole. Additionally, the power line system includes not just poles but crossarms, wires, and other equipment. When coupled with steel poles, this system is more wind and fire resilient. Wood poles and crossarms are also susceptible to woodpecker damage whereas steel poles and fiberglass arms are not, which is a prevalent issue in our wood areas and at higher elevations. Expanded spacing is also a key component of SDG&E's fire-hardening, which often necessitates taller structures. Steel poles offer significant advantages in accommodating the larger height and groundline moment requirements for these fire-hardening projects as wind forces can exceed 4 times that of the original design criteria.

As PCF fails to understand the data behind these programs and their effectiveness, the Commission should disregard their testimony regarding SDG&E's grid hardening programs.

D. Drone Inspections of SDG&E's Distribution Infrastructure Were Reasonable

Based on its deeply flawed risk reduction analysis, PCF argues that all costs associated with SDG&E's drone inspections should be disallowed.[103] PCF again demonstrates a lack of understanding of SDG&E's drone program and its cost effectiveness. Drone inspections provide an enhanced view of infrastructure, especially equipment in hard to reach or difficult terrain. SDG&E has extensive data on the effectiveness of its drone inspection programs compared to

[102] *See* U.S. Department of Agriculture, Design Manual for High Voltage Transmission Lines, 2015 Bulletin 1724E-200, *available at*: https://www.rd.usda.gov/sites/default/files/UEP_Bulletin_1724E-200.pdf.

[103] Ex. PCF-46 (Powers) at 28-29.

manual inspections that demonstrates the improved awareness and risk reduction associated with this program, and its cost effectiveness.

SDG&E launched the Drone Investigation Assessment and Repair (DIAR) Program in August 2019 as a pilot program to perform aerial assessments of its distribution poles in Tier 3 of the HFTD. The goal of the pilot program was to investigate how well drones could identify potential damages that could present a fire hazard.

Ten types of issues accounted for 89.4% of the total issues found through the DIAR Program and more than half (71.3%) of the total issues found (in all inspection programs).

- Damaged Arrestor, Insulator, Pole Top Work, and Armor Rod accounted for 39.1% of DIAR issues and 31.2% of the total issues.
- Damaged Crossarms accounted for 10% of the DIAR issues.
- Other issue categories accounted for less than 10% of DIAR issues.

In contrast, the top two issues found through overhead visual inspections (OHVI) were Damaged Poles and Damaged Conductor/Grounding. These issues accounted for 36.84% and 24.44% of the total issues, respectively.

While the primary difference between the DIAR Program and OHVI was the use of drones to provide a view of the top of the pole, there were other differences that contributed to the difference in findings between OHVI and the DIAR Program, including (1) OHVI identified any GO 95 nonconformance, while DIAR inspections only identified potential fire hazards, (2) DIAR inspections included the use of high-resolution imagery that allowed inspectors to zoom, enhance contrast, and manipulate the images to better identify damages that could be difficult or impossible to see from the ground, and (3) a dedicated inspection team was utilized during DIAR inspections to enhance consistency and quality.

Using a chi-squared test to demonstrate the statistical significance of the discrepancy in findings, DIAR inspections were shown to have a wildfire-associated finding rate twice as high as that of OHVI over the same period. The chi-squared test also showed that the discrepancy was due to systematic differences in inspection results and not random fluctuations in the data.

PCF compares the effectiveness of drone inspections over manual inspection programs, including ground-level inspections. It is not a reasonable comparison. When SDG&E performed an analysis of inspections with overlapping dates within 0-180 days, DIAR found on average 51% more issues than were found by manual Corrective Maintenance Program inspections.

Thus, SDG&E has more than established the reasonableness and cost-effectiveness of this program—which is not contested by any other party—and the Commission should authorize recovery of associated costs.

E. SDG&E's Generator Programs and Microgrids Reduce PSPS Risk

SDG&E's generator and microgrid programs directly serve to provide customers with resiliency solutions in compliance with Commission directives.[104] PCF's election to simply ignore Commission orders and guidance on these issues, coupled with their bias toward their preferred end game of SPS systems, should lead to their testimony being disregarded.

F. PCF's Contentions Regarding Utility SPS Should be Rejected

The fatal flaw of PCF's continued pursuit of SPS in lieu of other wildfire mitigation efforts is that simply installing SPS systems for residential customers across the HFTD does not comply with SDG&E's obligation to safely operate its electrical infrastructure, and reduce the scale, scope, and frequency of PSPS events.[105] Also PCF completely ignores the businesses, mobile home parks, critical customers, and other customers who do not have the luxury of a roof on which SPS can be installed for $35,000[106]—assuming the Commission adopts PCF's significantly understated costs of such a system. PCF's SPS solution might mitigate PSPS risk for single-family residential customers, but it would leave tenants, hospitals, police stations, fire stations, and other critical customers in the dark. This does not comport with SDG&E's obligations to its customers, nor does it support the state's electrification goals. To promote electrification, California requires a reliable, resilient grid, not one subject to shutoff at any time.

Additionally, PCF continues to advocate for an alternative that puts the onus and cost burden on the *customer* to install solar on their home. This policy debate and its flaws were addressed in Track 1 of this testimony and should not be relitigated here. But PCF admits that—despite clear requirements that California utilities enhance their infrastructure to promote wildfire safety—the cost of wildfire mitigation would have to be borne by the customer or through "public private partnerships" that do not exist at scale and are outside the jurisdiction of

[104] *See* D.21-06-034 regarding PSPS Phase III OIR Decision on generators.

[105] Pub. Util. Code §8386.

[106] PCF-47 (Powers) at 3.

the Commission and SDG&E's control.[107] This solution is untenable for the customers in SDG&E's HFTD, who may lack the means or pockets to foot a $35,000 bill. Many of SDG&E's HFTD customers are Access and Functional Needs, from tribal communities, or low-income. Any solution that turns the burden on these customers to find their own wildfire mitigation solutions should be disregarded outright.

VIII. CONCLUSION

My Revised Direct and Rebuttal Testimony meets the burden to establish that the direct costs incurred to support SDG&E's 2023 WMP are reasonable and should be fully authorized for recovery.

This concludes my prepared rebuttal testimony.

[107] Ex. PCF-47 (Powers) at 4-5.