Laura M. Fulton
Senior Counsel
8330 Century Park Court, CP32F
San Diego, CA 92123-1548
LFulton@SDGE.com

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VIA E-MAIL

Caroline Thomas Jacobs
Director, Office of Energy Infrastructure Safety
715 P Street, 20th Floor
Sacramento, CA 95814

RE: SDG&E Reply Comments on 2022 WMP Updates of the Large IOUs
Docket 2022-WMPs

Dear Director Thomas Jacobs:

SDG&E hereby provides reply comments regarding the 2022 Wildfire Mitigation Plan (WMP or Plan) Updates of the large IOUs: San Diego Gas & Electric (SDG&E), Pacific Gas & Electric (PG&E), and Southern California Edison (SCE) provided by each utility on February 11, February 18, and February 25, 2022 respectively. SDG&E's comments focus on issues raised by the Public Advocates Office at the California Public Utilities Commission (Cal Advocates) and Mussey Grate Road Alliance (MGRA). Failure of SDG&E to address any other issue in these Reply Comments does not indicate agreement or waiver.

I. SUMMARY OF COMMENTS AND GENERAL RECOMMENDATIONS

SDG&E's 2022 Wildfire Mitigation Plan Update meets the requirements of Public Utilities Code Section 8386 and should be approved as submitted. While it is impossible to eliminate all risk of wildfires or all risk of ignitions associated with utility infrastructure and/or operations, SDG&E has developed what it considers to be a best-in-class Wildfire Mitigation Plan Update that meets or exceeds industry standards and applicable Commission and statutory requirements. And, as demonstrated over a decade of wildfire mitigation efforts, SDG&E intends to continually improve its fire safety and wildfire risk mitigation efforts over time through the ongoing WMP process.

While rate impacts and cost recovery are separate from the WMP Update approval process, SDG&E continues to emphasize that adequate funding is critical to these improvements. SDG&E's Wildfire Mitigation Plan programs are proposed with an eye toward efficiency and balancing the need to mitigate risk with reasonable cost. But costs—and any differences between forecasted and actual spend— associated with the Plan are irrelevant to, and should not hinder, the Plan's ultimate approval and remain subject to a separate cost recovery proceeding.

Many of the comments submitted do not necessarily focus on issues with SDG&E's 2022 WMP Update, and rather request that the Office of Energy Infrastructure Safety (Energy Safety) change requirements or reporting for the upcoming 2023 submission. While informative for the

future, these comments should not influence Energy Safety's approval of the 2022 WMP Update. SDG&E looks forward to the upcoming dialogue regarding the 2023 WMP submissions that Energy Safety will commence in the upcoming weeks. SDG&E also appreciates Energy Safety's efforts to begin development of the 2023 WMP guidelines relatively early in 2022. To afford the electrical corporations time to prepare and develop the comprehensive Plans in the format required by Energy Safety, SDG&E requests that development of the 2023 guidelines occur on an accelerated schedule, with final guidelines issued no later than September 2022.[1]

Finally, SDG&E notes that while stakeholders had sixty days to review and consider SDG&E's 2022 WMP Update, SDG&E was afforded just seven calendar days to provide a response to over 500 pages of stakeholder input. Given these time constraints, SDG&E has limited its response to issues it considers most relevant. To facilitate the development of a better record and additional dialogue on concerns raised by stakeholders, SDG&E requests that the electrical corporations have at least two weeks to reply to comments to future WMP submissions.

II. RESPONSE TO COMMENTS OF THE PUBLIC ADVOCATES OFFICE (CAL ADVOCATES) ON GENERAL ISSUES IN THE 2022 WMP UPDATES OF THE LARGE IOU UTILITIES

Cal Advocates' Comments on General Issues (General Comments) focus on several issues and make a number of recommendations for future WMPs. While SDG&E's comments on specific issues are listed below, SDG&E has general concerns regarding recommendations in favor of additional working groups on various issues.[2] Collaboration between the electrical corporations, stakeholders, and Energy Safety is valuable, but the proliferation of additional working groups with an ongoing meeting schedule continues to require the dedication of electrical corporation resources and can divert attention from the work of implementing wildfire mitigation efforts. In creating any new working groups, Energy Safety should consider the availability of resources, as well as the need to balance promoting ongoing transparency and collaboration with the important work that the utilities are performing to reduce wildfire risk.

Moreover, certain comments are directed at further standardization of utility practices and highlight different approaches of the electrical corporations regarding efforts such as system hardening.[3] The large electrical corporations are different businesses with significant differences in their scale and service territories. While collaboration and ongoing development of knowledge

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[1] SDG&E agrees with Cal Advocates on their recommendation 27, that Energy Safety adopt final WMP guidelines by September 2022.

[2] Recommended additional working groups include (1) convene a technical working group on the effectiveness of drone inspections, inclusive of a report submitted in advance of the working group that analyzes potential applications of drone inspections (General Comments at 2); (2) facilitate a working group to develop consistent practices for fast recloser settings (*Id.* at 3); (3) consider expanding the collaboration between utilities on covered conductor to include other hardening programs (*Id.* at 6).

[3] *See, e.g.* General Comments at 6 (recommending a working group to collaborate on system hardening). SDG&E does not necessarily disagree with the creation of a system hardening working group, but such a working group should not be duplicative of the ongoing covered conductor working groups.

and best practices is helpful, standardization of practices dilutes the ability to use new techniques that could promote additional risk reduction, efficiency, or lower costs for ratepayers. The various electrical corporations report on the risk-spend efficiencies of their programs and costs for programs in their WMP submissions, and SDG&E has already provided additional detail on efforts such as hardening and covered conductor in its publicly-posted data requests. Thus SDG&E cautions against development of more standardization of efforts, including the submission of additional joint reports in the 2023 WMPs.[4]

To the extent that Energy Safety does institute additional collaboration sessions with stakeholders, SDG&E requests that rather than ongoing working groups, Energy Safety achieve these goals through one-day workshops to promote efficient use of resources.

a. *Energy Safety should require electric utilities to develop plans to co-trench shared utilities, and to submit those plans in their 2023 WMPs (Item III.B)*

SDG&E generally supports co-trenching efforts and does attempt to co-trench with other utilities sharing poles.[5] Co-trenching promotes efficiencies and SDG&E has anecdotally observed that undergrounding efforts receive more community support when the entire facility is placed underground rather than leaving existing telecommunications infrastructure above ground. But co-trenching requires a shared effort by all stakeholders—the electric utility and the telecom must both perform specific work on their infrastructure and there is a cost to both parties. Energy Safety lacks the authority to order other utilities to participate in co-trenching efforts, nor can they address the cost recovery issues for all parties. Thus, requiring the utilities to submit a "formal plan to co-trench shared utility facilities" as part of the 2023 WMP submissions would be futile. The plan would ultimately be a non-binding, aspirational plan that remained subject to approval by all of the various parties involved.

SDG&E believes that more stakeholder engagement to identify "logistical, financial, and regulatory barriers that currently impede cooperation between utilities" would be helpful to achieve the shared goal co-trenching facilities. Rather than through the WMP process, however, SDG&E supports pursuing such engagement through joint efforts at the California Public Utilities Commission (Commission), Energy Safety, and the Legislature.

b. *Energy Safety should require each utility to establish a program to examine the links between ignitions and overdue maintenance (Item IV.A*)

SDG&E disagrees with Cal Advocates' recommendation in favor of formal programs to examine links between ignitions and overdue maintenance. As an initial matter, Energy Safety now requires the electrical corporations to submit incident reports for ignitions suspected to have been caused by utility infrastructure. These reports must include both "a preliminary root cause analysis, including a detailed discussion of all findings," and "a description of all actions taken to

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[4] *See, e.g.* General Comments recommending submission of a joint report on system hardening in the 2023 WMPs. General Comments at 6.

[5] While Cal Advocates comments also discuss co-trenching with gas facilities, SDG&E believes the focus is better spent on combining efforts with telecommunications facilities on the same pole.

minimize such incidents."[6] Thus, it is unnecessary for Energy Safety to require an additional "program" to evaluate the root causes of ignitions.[7] Moreover, additional working groups on this topic are unnecessary.

Cal Advocates seems to propose a solution without a significant problem. They point out that PG&E has already created a team to analyze the causes of asset failures and SCE has investigated each of the ignitions caused by "equipment/facility failure."[8] There is no mention of SDG&E, but SDG&E notes that it routinely investigates ignitions related to utility equipment. SDG&E provides details on both its existing maintenance programs in Section 7.3.4 of the 2022 WMP Update, and the work being done to perform root cause analysis on each ignition as part of its Ignition Management Program in Section 7.3.7.4.1. SDG&E strives to perform maintenance within the required timeframes, with additional prioritization on addressing infractions found within the HFTD on an expedited basis. These efforts to perform timely maintenance and inspections are the best means to reduce the risk of ignitions that result from overdue maintenance—to the extent such ignitions occur. SDG&E uses its existing programs and associated data are in place to examine the trends of most importance to SDG&E. Requiring additional studies or working groups on this issue would be duplicative of work being performed and could take away resources from addressing more critical areas of concern.

c. *Each utility should include a program to evaluate the root causes of equipment-caused ignitions in its 2023 WMP (Item IV.A)*

SDG&E disagrees with Cal Advocates recommendation that the utilities should include an additional program to address the root causes of equipment caused ignitions in its 2023 WMP. As addressed above, Energy Safety already requires the electrical corporations to perform a preliminary root cause analysis of ignitions that are suspected to have been caused by electrical infrastructure. Additional programs to this extent are thus redundant and unnecessary.

d. *In advance of the technical working group, each utility should submit a report that analyzes the potential applications of drone inspections, addressing the effectiveness and limitations of each application (Item IV.B)*

For the reasons stated above, SDG&E does not believe that a working group to address the efficacy of drone inspections or their potential application would be helpful. SDG&E has provided details regarding its drone inspection programs in the 2022 WMP Update and continues to report on progress quarterly through the required Quarterly Data Report and Quarterly Initiative Update. SDG&E has participated in benchmarking drone inspection programs with the other utilities and will continue to do so as a best practice. However, establishing an ongoing working group or requiring a separate report to analyze potential applications is duplicative of the information provided and does not provide additional value.

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6 California Code of Regulations (CCR) §29301.

7 General Comments at 8.

8 *Id*. at 8-9.

e. *In future WMPs, Energy Safety should require each utility to describe the mix of in-house and contract staff in each vegetation management contract staff in each vegetation management program, and the reasoning for this choice (Item V.A)*

Cal Advocates recommendations regarding labor requirements are outside the scope of the WMP requirements. SDG&E's priority is to reduce the risk of wildfire, and qualified personnel will achieve this goal regardless of their status as contractor or internal employee. To that end, SDG&E's vegetation management program is comprised of trained personnel who can execute the work necessary to meet SDG&E's regulatory requirements as well as the enhanced programs outlined in SDG&E's WMP.

As a requirement of the WMP Guidelines, SDG&E provides information in Section 5.4 that lists out for all vegetation management roles the minimum qualifications, special certification requirements, and percent of full-time employees in the roles. Therefore, SDG&E is providing the relevant information to show that the workforce performing vegetation management work is qualified for the role. SDG&E disagrees with providing further information to provide the reasoning for how much of the staff is contracted versus full-time internal employees. SDG&E's priority is to reduce the risk of wildfire, and qualified personnel will achieve this goal regardless of their status as contractor or internal employee.

f. *Energy Safety should require the large IOUs to report fast-recloser outages in quarterly reports beginning with the 2nd quarter of 2022 (Item VI.A)*

Cal Advocates recommendation for a working group and additional reporting on fast-recloser settings request work are redundant and burdensome in light of existing requirements. SDG&E provides documentation of its sensitive relay settings in Section 7.3.6.2 of the 2022 WMP Update. These sensitive relay settings have proven effective in mitigating the risk of an ignition occurring when there are faults on circuits with these settings applied. The implementation of these settings is limited to the times of extreme fire danger when the Fire Potential Index is extreme, or when conditions warrant a PSPS event. The application is further limited to only the circuits in the geographic areas that are experiencing extreme weather. These conditions exist on average for approximately 15 days per year or 4% of any given year. Within SDG&E's service territory, the application of sensitive relay profiles is not a significant contributor to reliability impacts. In 2019 and 2020, a total of 48 outages occurred on devices with sensitive settings enabled. In this same timeframe over 4,400 unplanned outages occurred in SDG&E's service territory. Therefore, devices with sensitive settings enabled accounted for only one percent of all unplanned outages.

SDG&E agrees that when using sensitive relay settings, it is important to balance safety and reliability. As noted in Cal Advocates' comments, SDG&E has used fast recloser settings as "an effective and efficient way to prevent ignitions" for some time.[9] But given the disparities between the electrical corporations' service territories, weather events, and infrastructure, Energy Safety should not seek to standardize that balance through additional working groups. Given the existing reporting in the WMP's there is adequate clarity among the utilities to address best practices, and SDG&E remains willing to benchmark on sensitive relay-profiles through informal benchmarking efforts.

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9 General Comments at 13.

Cal Advocates notes that PG&E has been filing monthly reports to the CPUC on fast-trip outages, but the addition of the recommended quarterly reporting for all utilities would be unnecessary and provide minimal value for SDG&E. The existing quarterly reports also already require SDG&E to provide all the risk events across the service territory, inclusive of those that occur while sensitive relay profiles are enabled. Further reporting and specificity would be burdensome and does not provide additional value.

g. *Energy Safety should direct SDG&E to reassess and show greater empirical support for its estimate of the safety risks of PSPS (Item VII.A.3)*

SDG&E accounts for the safety consequence of PSPS as part of the WiNGS Ops model, and these assumptions are described in Section 4.5.1.8 in the WMP. There is no empirical evidence applicable to support the estimate of safety risk of PSPS, as there have been zero observations of fatalities during PSPS events in SDG&E's territory. Given that PSPS injuries and fatalities in SDG&E's territory remain rare, using statistical approaches in wildfire modeling more accurately quantifies risk. SDG&E continues to enhance its model with statistical approaches that are based in data. The review of non-event outages or non-SDGE outages only adds value if in the context that they are relatable or applicable to the SDG&E territory.

With respect to incorporating asset age into PSPS decision making, SDG&E uses machine-learning predictive models in its PSPS decision-making process. Learning models factors different data that correlates with the attributes to provide an accurate prediction for probability of ignition (POI). SDG&E strives to further enhance the risk assessment process with increasingly granular machine learning POI models. Installation age is a potential attribute in all models, as the machine learning process considers as many factors as possible and then selects the features that have strong predictive power. Installation age is not as necessary attribute for predicting failure rates only a traditional attribute used for engineering failure rate calculations.

SDG&E also disagrees with the need to "walk through" its decision making in real time. Going through real world "step by step" analyses is distinct from Cal Advocates' request to improve modeling at an aggregate level and would not improve modeling efforts. While it might increase transparency, reviewing decisions made in hypothetical or real-world scenarios would also rarely lead to better understanding for future events. Weather events are distinct and unique, and in a constantly evolving climate with ongoing improvements in understanding, situational awareness, improvements in PSPS mitigations, data points and variables are subject to change depending on conditions. Cal Advocates recommendations regarding the addition of PSPS decision making examples is better suited for the upcoming discussion of the 2023 WMP guidelines.

h. *Energy Safety should specify in future guidelines that utilities need to explicitly explain (and provide concrete examples of) how their PSPS consequence models measure harms to customers caused by PSPS and weigh these risks against those caused by potential wildfires (Items VII.A.3 and VII.B)*

As discussed above, SDG&E believes this recommendation is better addressed in development of the 2023 WMP Guidelines. That said, SDG&E does not believe that inclusion of additional information recommended by Cal Advocates is necessary.

In 2021, SDG&E further integrated wildfire risk modeling and the comparison of wildfire risk to the public safety risk associated with PSPS events in the first version of the WiNGS-Ops model, described in Section 4.5.1 of the 2022 WMP Update. SDG&E recognizes that PSPS impacts may vary among customer types and that there are certain customer groups that may suffer higher consequences than others in a PSPS event. As such three categories were developed to represent different types of customers:

- Critical: Includes urgent customers whose mission supports regional emergency response (e.g., police, fire department, hospitals) as well as essential customers who are essential to public health, safety, and security as defined by the CPUC (e.g., public utilities, communications providers, water service providers, transportation)
- Medical Baseline: Residential and other customers with a qualifying medical condition or medical device usage (e.g., dialysis machine)
- Non-Critical: All other customers that do not fall in either the critical or medical baseline categories

Each customer group is evaluated on risk attribute categories similar to those defined in the MAVF (i.e., safety, financial, reliability). Any enhancements to the model will be based on accurate and available data that show statistical significance.

i. *Energy Safety should add a requirement that any documentation cited by the IOUs in support of their statements in the WMPs be included as an appendix to the IOUs' WMP filings (Item VII.B)*

SDG&E believes the addition of an appendix including all documents cited in the WMP filings is unnecessary. All cited documents in the WMP are already available on each IOUs website. To the extent documents are inadvertently not available, they can be provided through data requests, which are also publicly posted.

j. *Energy Safety should follow the upcoming workshop on WMP guidelines with a written workshop report, then stakeholder comments and replies. Subsequently, Energy Safety should prepare a staff proposal on 2023 guidelines and permit stakeholders to file comments and replies on the staff proposal (Item VIII)*

SDG&E generally agrees with this concept and agrees with Cal Advocates that final guidelines should be approved by September 2022. With respect to the remainder of the recommendations regarding Future Guidelines, SDG&E generally agrees with Cal Advocates proposals to create a more efficient WMP process and looks forward to discussing these items in more detail during development of the 2023 WMP guidelines. SDG&E uses machine-learning predictive models in its PSPS decision-making process. Learning models factors different data that correlates with the attributes to provide an accurate prediction for probability of ignition (POI). SDG&E strives to further enhance the risk assessment process with more granular machine learning POI models. Installation age is a potential attribute in all models, as the machine learning process considering as many factors as possible and then selects the features

that have strong predictive power. Installation of age is not as necessary attribute for predicting failure rates only a traditional attribute used for engineering failure rate calculations.

III. RESPONSE TO COMMENTS OF THE PUBLIC ADVOCATES OFFICE SPECIFIC TO INDIVIDUAL 2022 WMP UPDATES OF THE LARGE IOU UTILITIES

a. *Energy Safety should require SDG&E to explain significant differences in cost forecasts of undergrounding from 2021 to 2022 (Item V.A.1)*

SDG&E began undergrounding within the HFTD as part of its Wildfire Mitigation Plan in 2019 and has been improving its processes and procedures around the engineering, design, permitting, and installation of underground electric distribution since. Due to the relatively new initiative of installing underground in more rural areas specifically for wildfire and PSPS mitigation, there have been significant improvements year over year resulting in the previous year's forecasts being outdated. SDG&E notes that, in general, these improvements have correlated with lower costs, which indicate improved efficiency and ultimately less burden on ratepayers.

SDG&E has provided explanations and been transparent regarding current cost forecasting both in the 2022 WMP Update and the recently filed Annual Report on Compliance. Section 9.4 of the 2022 WMP Update goes into detail on the improvements made in 2021 to reduce costs of the undergrounding program, including the development of new design standards that make construction more efficient, field reviews of design packages with construction and environmental personnel, geotechnical investigations at each job location, and identifying environmental early in the design process. SDG&E provides estimated costs of undergrounding per mile broken out into categories for construction, engineering/design/permitting, and material. SDG&E will continue to update cost forecasts with the latest information as additional projects are completed and utilize the most up-to-date information in forecasting future work.

There is no need for Energy Safety to require any additional reporting on the changes to its undergrounding costs from year to year. SDG&E has already provided explanations for the difference in cost forecast to actuals for 2021 in the Annual Report on Compliance, attributing the cost decrease to two items. First, more efficient construction methods reduced construction costs on a per-mile basis. Second, the projects chosen in 2021 did not incur any subsurface conditions that required significant re-routes or alternative construction methods. Subsurface conditions can be difficult to predict, and when making initial cost estimates, it is necessary to assume the possibility of construction difficulties that necessitate additional cost. As noted above, as SDG&E's strategic undergrounding initiatives continue, SDG&E anticipates increased ability improve cost forecasting and project execution through geotechnical investigations at each job location.

b. *Energy Safety should require SDG&E to report all undergrounding completed at shallower depths (Item V.A.2)*

SDG&E has worked to implement standards and procedures that allow for the safe and efficient installation of underground electrical facilities. Undergrounding is designed and constructed in accordance with all applicable codes, regulations, and SDG&E internal standards.

Undergrounding electric facilities is an effective program for reducing the risk of wildfire and reducing the likelihood of PSPS events. The benefits of undergrounding are realized no matter the depth of the trench in which the facilities are installed, and this additional information should not be required in future reporting as it does not influence the risk reduction achieved.

In addition to being unrelated to risk reduction, reporting on depth of trench information would be overly burdensome to produce. Providing a workplan with any forecasted depth of trench information would ultimately prove inaccurate, as the depth of trench can change (although always within applicable standards) due to field conditions such as subsurface conditions and the presence of other underground utilities in the area. These conditions may not be apparent until construction commences. The depth can also change depending on field conditions throughout sections of the project resulting in reporting many different depths along the route.

Additionally, the ultimate depth of trench is not stored in SDG&E's GIS system and would require manually going through SDG&E's as-built drawings to retrieve and review on a project-by-project basis. This level of effort could better be used for other purposes, as the retrieval or understanding of this data would not contribute to mitigating the risk of wildfire in the service territory.

SDG&E understands and appreciates Cal Advocates' intent with this request. While, as described above, SDG&E does not believe the comprehensive reporting is necessary or helpful, SDG&E is willing to contribute to the development of best practices for system hardening through the ongoing sharing of information. SDG&E supports the sharing of this information through more informal tools, such as workshops, to facilitate dialogue among all stakeholders.

c. *SDG&E should provide greater clarity on how it will achieve its target of 60 miles of covered conductor installation in 2022 (V.A.3)*

As SDG&E has stated in its response to Cal Advocates' DR-06, SDG&E has demonstrated its continued ability to complete grid hardening initiatives in previous WMP filings. In 2021, SDG&E targeted and completed 20 miles of covered conductor and 100 miles of bare conductor hardening. In 2020, SDG&E targeted 1 mile of covered conductor and 102 miles of bare conductor hardening, and ultimately completed 1.9 miles of covered conductor and 99.5 miles of bare conductor. In 2019, SDG&E completed approximately 82 miles of bare conductor hardening. Over the WMP timeframe to date, SDG&E has consistently completed over eighty miles of overhead distribution hardening every year.

Given this background and the ongoing improvements in SDG&E's understanding in development of overhead hardening targets, SDG&E's goals of 60 miles of covered conductor installation and 5 miles of bare conductor hardening are therefore very reasonable. The resources used to construct both covered conductor and bare conductor hardening projects, including engineering, design, permitting, environmental, land, and construction are the same. The increased covered conductor target is the result of a shift of resources from bare conductor hardening to covered conductor installation. Therefore, as SDG&E shifts to doing more covered conductor and less bare wire work, there will be enough resources to meet the 60-mile goal.

To address the material supply chain issues SDG&E is working directly with vendors to verify material availability and delivery dates. Efforts are also being made to bring on additional material vendors and create forecasts further into the future. SDG&E has also hired an outside consultant to help with tracking as well as look into possible process improvements.

SDG&E is also concerned that the request for a "detailed workplan" regarding covered conductor goals is outside the scope of the WMP. SDG&E has provided detailed information regarding its covered conductor program, the associated reduction in wildfire risk, and its goals to complete construction and associated costs forecasts. Energy Safety is tasked with assessing whether SDG&E is implementing that plan. To the extent SDG&E experiences the need to significantly revise its goals regarding covered conductor or any other program, Energy Safety has devised several avenues to address those changes, including the quarterly reporting as well as the Change Order process. For these reasons, creating additional reporting around SDG&E's plans for covered conductor installation in 2022 is not necessary.

d. *Energy Safety should require SDG&E to provide greater detail on its maintenance of non-communicative remote-controlled switches (Item V.B)*

SDG&E has provided detailed information on the non-communicative SCADA switches that led to additional customers being de-energized during 2020 PSPS events. Only two such instances occurred in 2020, and SDG&E overall has maintained a very reliable 98% communication rate in its fleet of SCADA enabled devices.

To address the issues that occurred in 2020, SDG&E took several additional steps to ensure this type of incident would be mitigated during future PSPS events. These steps were detailed as part of SDG&E's WMP Action Statement Supplemental Report filed on November 1, 2021 and updated as part of SDG&E's 2022 WMP Update. SDG&E explained that during SDG&E's 2021 PSPS event November 24-26, no SCADA switches were non-communicative resulting in the de-energization of additional customers. As such, SDG&E considers this Action Statement (SDGE-21-08) closed and further detailed reporting should not be required as it would provide no additional benefit.

SDG&E's operating procedures include a SCADA Headend system where Distribution System Operators can see if a SCADA site is out of communication. The operator can then toggle the site to attempt to regain communication with the device, and if unsuccessful will route a ticket to the Electronic Control Technologists who will address and repair the issue in the field. SDG&E procedures require inspection and maintenance performed at least every six years, and battery replacements within three years on all SCADA devices outside of the HFTD Tier 3, and annual battery replacements on all SCADA devices within the HFTD Tier 3. Operating procedures also call for all SCADA switches in the HFTD to be tested annually. All newly installed SCADA switches involve a standardized operational test procedure of both the local and remote operations, fault indicators, and alarm systems to ensure full functionality before the device is placed in service.

The additional work and process changes in 2021 to address this issue include identifying any SCADA devices that are bypassed or out of communication within the HFTD. In 2021, SDG&E identified and repaired 33 devices, restoring full functionality. If a device cannot be repaired and is forecasted to be impacted by a PSPS event, new measures were instituted to station a qualified electrical worker at the device to perform manual switching if possible, and to adjust the customer notification list if required. These improvements made by SDG&E in 2021 on top of an already reliable SCADA system demonstrate that the remedies required by this Action Statement have been met, and this issue can be closed.

IV. RESPONSE TO COMMENTS OF MUSSEY GRADE ROAD ALLIANCE TO 2022 WMP PLANS OF PG&E, SCE, AND SDG&E

a. *SDG&E properly models regarding third-party ignitions which do not correlate with extreme weather events, such as balloons and traffic collisions (MGRA P. 7)*

SDGUE disagrees with MGRA's characterization that "non-catastrophic events [are] still overweighed."[10] SDG&E includes contact risks (e.g., balloon contact, vehicle strike, or animal contact) in Table 4-17 of SDG&E's 2022 WMP that are each modeled separately and then aggregated into an overall POI model as depicted in Figure 4-19 of the report. The data for "third-party ignitions" such as balloon, animal, and other non-wind-related ignition sources inform quantifiable risks on our system that can be reduced by different mitigation such as covered conductor or underground. The overall POI model outputs are provided to PSPS decision-makers via the WiNGS Ops tool for situational awareness during PSPS events.

b. *SDG&E's risk models incorporate wind speed (MGRA p. 10, 94-95)*

SDG&E's WiNGS-Planning model is used to inform mitigation alternatives and prioritize the deployment of mitigation (see 2022 WMP Section 4.5.1.7 Wildfire Next Generation System-Planning). The data is derived by SDG&E's meteorology team correlating weather station to the segment and utilizing historical wind speeds and incorporating the peak wind speeds into the model. This data point is used as an adjustment factor to the baseline ignition rate, thus accounting for the wind speed in the ignition rate variable.[11]

Currently under development, the WiNGS Planning model is evaluating preliminary data using the POI/POF models developed for WiNGS Ops, which incorporates wind speeds as a variable for specific drivers where appropriate, such as conductor POI/POF, and vegetation POI/POF. The intent of this evaluation is to replace the current ignition rate methodology with an ignition rate that is reflective of wildfire risk drivers. This statistical method is more appropriate than using the consequence model.

c. *SDG&E agrees that smoke as a safety risk will prove to be a major new initiative in this and future OEIS and CPUC proceedings and continues to develop this effort. (MGRA p. 10)*

SDG&E appreciates MGRA's recognition that its initiative to introduce smoke as a safety risk will "prove to be a major new initiative."[12] While SDG&E disagrees with the characterization

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[10] MGRA Comments at 7.

[11] For more information regarding how high wind is incorporated into the ignition rate, please refer to the detailed methodology in Question 2 and Response 2 of MGRA-SDGE-WMP22_DATAREQUEST 4.

[12] MGRA Comments at 10.

that its estimates regarding wildfire smoke safety are a "substantial underestimate,"[13] SDG&E continues to explore the safety risk associated with wildfire smoke. Data and reference numbers should be validated and correlate to SDG&E territory.

d. *MGRA's discussion of the California State Auditor Report (p. 15)*

While not necessarily containing a specific recommendation, MGRA addresses the recent findings of the California State Auditor's Report on Electrical System Safety (Audit Report). It is important to note, however, that MGRA discusses the Audit Report as an item of interest, but MGRA does not recommend that Energy Safety reject SDG&E's WMP.

SDG&E has significant concerns regarding many of the findings of the report, including the Auditor's assertion that "inadequate prioritization of a mitigation should be (and have been) sufficient grounds for Energy Safety to reject a WMP."[14] SDG&E generally agrees with Energy Safety's response to the Audit Report, wherein Director Thomas Jacobs explained that "Energy Safety should not and cannot reject a utility's forward-looking plan because of actions the utility takes (or fails to take) while implementing its previous plan."[15]

California Assembly Bill (AB) 1054 makes clear that if an electrical corporation meets the statutory requirements for presentation in its wildfire mitigation plan, that said plan should be approved. The plans are forward looking. AB 1054 provided both Energy Safety and the Commission additional tools to address plan compliance, including the quarterly reporting and the possibility of financial penalties in the event of substantial noncompliance with a WMP. MGRA's broad statement that a WMP should be rejected in the instance of inadequate prioritization misunderstands the WMP approval process. If Energy Safety takes issue with the potential prioritization of forward-looking initiatives described in a WMP, it may request a revision to the Plan, but it is not grounds to reject it.

e. *Energy Safety should not standardize the method for estimation of de-energization consequences (MGRA p. 16, 100-101)*

SDG&E disagrees with the standardization of risk models and consequence assumptions. While there are harms to customers associated with a PSPS, those harms are not always "obvious"[16] and may differ between utilities, service territories, and mitigations in place.

In 2021, wildfire risk modeling and the comparison of wildfire risk to the public safety risk associated with PSPS events was further integrated with the first version of the WiNGS-Ops model, described in Section 4.5.1 of the WMP. SDG&E plans to continue to evaluate and enhance WiNGS-Ops with the development of more granular machine learning probability of

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13 *Id.*

14 *Id.* at 15.

15 Energy Safety's Response to the California State Auditor's report by the Office of Energy Infrastructure Safety dated March 4, 2022. *Available at* http://auditor.ca.gov/reports/2021-117/index.html#section1.

16 MGRA Comments at 16.

failure, probability of ignition, consequence models for different assets and failure modes and continue to enhance PSPS models. Additionally, SDG&E maintains its commitment to investing in PSPS analysis with increasing granularity, and plans to share its experience in various proceedings (such as the Risk Modeling Working Group facilitated by Energy Safety), as more information and experience is gained.

f. *SDG&E designation of "at risk" tree species is supported by data (p. 83)*

SDG&E's selection of "at-risk" species is supported by data demonstrating common species that are associated with the relative highest frequency of outage events, including oak and sycamore. SDG&E supplements this data with subject matter expertise from its experienced vegetation management personnel and contractors as well as additional anecdotal experience of trees that are likely subject to branch failure. Both oak and sycamore would fall into this category.

Additionally, the designation of a species as being "at risk," does not necessarily correlate to the tree being trimmed to an enhanced clearance. As noted by MGRA, SDG&E does consider site specific factors in its post-trim clearance criteria and is judicious in its application of enhanced clearance. The need for enhanced clearances is influenced by several criteria, including but not limited to tree health, location with respect to infrastructure, and whether enhanced clearances are possible. The discretion is evidenced by the fact that SDG&E trimmed 4,500 fewer trees to enhanced clearances than originally forecast. Each of these trees was a targeted "at risk" species. SDG&E performed inspections on all these trees to determine if enhanced clearances were warranted given the circumstances and determined that a great deal of the trees did not warrant enhanced clearances at this time.

g. *None of the utilities seem to have adequately addressed the issues raised by WSD/OEIS last year regarding how the potential for wind-driven fires is adequately incorporated into their risk models (p. 31)*

Both WiNGS-Planning (Section 4.5.1.7 Wildfire Next Generation System-Planning) and WiNGS-Ops (Section 4.5.1.8 Wildfire Next Generation System-Operations) models take into account wind. SDG&E continues to progress the probability of ignition (PoI) models which will improve the way in which ignition sources are accounted for. Enhancements and progress made to incorporate PoI wind speeds model in WiNGS-Planning as a variable for specific drivers, such as for predicting ignitions from vegetation contacts or conductor this will be reflective of wildfire risk drivers.

h. *SDG&E continues to improve modeling efforts regarding ignition consequence (MGRA p. 43)*

SDG&E continues to improve its modeling efforts based on improvements to data. The WiNGS Planning model utilizes the WRRM Conditional Impact score in the consequence portion of the Wildfire Risk score, which uses most severe fire weather days for simulations. In the wildfire likelihood portion of the model, a Significant Wildfire Rate factor, which specifies an average of 1 wildfire occurring every 15 years, is applied to the ignition rate. This factor is based on the results of a simulation and includes variables for climate change, fire hardening, fire burn, exposure, and

error. This adjusted factor applied to the ignition rate serves to more accurately assess the expected outcome of a given wildfire risk event, to prevent the model from being overly biased towards the worst-case consequence assessed across a circuit-segment.

i. *Recommendations regarding prioritization of initiatives due to capital rate of return or incentive compensation are inappropriate and should be disregarded (MGRA pp. 72-77)*

MGRA's insinuations that the electrical corporations prioritize wildfire mitigations and investment based on profit and ultimately executive compensation are unfounded and baseless. First, MGRA's assertion that utilities are "incentivized by the state to make capital investments"[17] due to their Commission authorized rate of return is an inaccurate reflection of the regulatory compact. A fundamental tenet of that compact is that utilities are legally entitled to a reasonable rate of return on capital investment. Both the rate of return and the reasonableness of capital investment are matters within the jurisdiction of the Commission and are well-outside the WMP approval process. And second, the rate of return on capital is the primary vehicle by which the utilities obtain the investment capital necessary to implement the wildfire mitigation efforts all parties—the state legislature, the Commission, the utilities, and stakeholders to the WMPs—agree are necessary. The Legislature specifically noted the need for access to this capital in the passage of AB 1054. Energy Safety should not jeopardize access to the investment necessary to put the WMPs into action.

SDG&E's wildfire mitigation efforts are aimed at reducing the risk of wildfire and promoting the safety of its customers and the community where it serves. The insinuation that increasing capital investment in undergrounding is based in a desire to increase shareholder returns—and by extension executive compensation—is inappropriate and should be disregarded. SDG&E's wildfire mitigation efforts are designed and informed by risk-based decision making used to select efficient measures to reduce both the risk of wildfire and PSPS. These decision-making processes are described in detail in SDG&E's WMP, which includes increases in both the scope of SDG&E's undergrounding efforts as well as covered conductor. SDG&E's approach incorporates strategically selected undergrounding in areas where that approach best mitigates the risk of wildfire as well as reduces the number of customers impacted by PSPS. Thus, the strategic undergrounding described in SDG&E's WMP should be approved.

Finally, compensation of utility employees is not a subject that should be included in the review and approval of the WMPs.[18] Energy Safety's review of SDG&E's executive compensation pursuant to Public Utilities Code Section 8389 includes consideration of whether the electrical corporations are prioritizing safety. To that end, SDG&E may include goals related to progress on WMP initiatives in incentive compensation. Those goals are included in SDG&E's incentive

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[17] MGRA Comments at 60.

[18] SDG&E notes that Pub. Util. Code §8389 requires Energy Safety to review and approve the electrical corporations' executive compensation structures prior to issuing a safety certification. Those executives are defined by statute and limited to a subset of employees of the electrical corporation. *See* Pub. Util. Code §8389(e)(4) (defining executive officers consistent with Pub. Util. Code §451.5). Any effort to review or consider incentive compensation across SDG&E should be rejected as outside the scope of Energy Safety's jurisdiction.

compensation structures because their achievement promotes the safety and resiliency of SDG&E's customers and promotes ongoing compliance with its approved WMP. A correlation between promoting positive safety outcomes, risk reduction, and wildfire safety with incentive compensation is not a bad thing. In fact, it is required by statute for defined executives.[19] For these reasons, MGRA's rate of return and compensation recommendations should be dismissed.

Conclusion

SDG&E requests that Energy Safety take these recommendations into account in the process of reviewing the WMP submittals and approve SDG&E's WMP without revision.

Respectfully submitted,

/s/ Laura M. Fulton
Attorney for
San Diego Gas and Electric Company

[19] Pub. Util. Code §8389(e)(4).