

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

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Order Instituting Rulemaking to Examine Electric Utility De-Energization of Power Lines in Dangerous Conditions.

Rulemaking 18-12-005

COMMENTS OF THE PUBLIC ADVOCATES OFFICE ON THE INVESTOR-OWNED UTILITIES' POST-SEASON REPORTS FOR THE 2022 PUBLIC SAFETY POWER SHUTOFF EVENTS

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I. INTRODUCTION

Pursuant to Decision (D.) 21-06-034,¹ the Public Advocates Office at the California Public Utilities Commission (Cal Advocates) submits these comments on the 2022 Post-Season Public Safety Power Shutoff (PSPS) reports filed by the large Investor-Owned Utilities (IOUs) Pacific Gas and Electric Company (PG&E), the Southern California Edison Company (SCE), and the San Diego Gas & Electric Company (SDG&E) on March 1, 2023.

Cal Advocates' comments primarily address the contents of PG&E's and SCE's 2022 PSPS Post-Season Reports,² including how PG&E and SCE failed to adequately describe how their meteorology and fire science models performed over the 2022 fire season. These comments also provide general recommendations for updated Commission guidance that should be given and then put into put into place prior to peak fire season in 2023. These recommendations are based on Cal Advocates' experience as a stakeholder in 2022 and are intended improve the implementation and reporting of PSPS events. In 2022, SCE executed six PSPS events, three of which caused customers to lose power.³ PG&E and SDG&E experienced no PSPS events that resulted in customers losing power.⁴

Cal Advocates also uses this opportunity to comment on the relatively new Fast-Trip related outage programs (Fast Trip Outages) of PG&E, SCE, and SDG&E that have not yet been addressed in a Commission proceeding, but whose reliability impact on the

¹ Decision Adopting Phase 3 Revised and Additional Guidelines and Rules for Public Safety Power Shutoffs (Proactive De-Energizations) of Electric Facilities to Mitigate Wildfire Risk Caused by Utility Infrastructure.

² Cal Advocates does not comment on SDG&E's Post-Season Report.

³ 2022 PSPS Post-Event Reports for PG&E, SDG&E, and SCE. <u>https://www.cpuc.ca.gov/consumer-support/psps/utility-company-psps-reports-post-event-and-post-season</u>. Accessed March 8, 2023.

⁴ The IOUs are required to submit a Post-Event PSPS Report when its Emergency Operations Center is activated to address a high threat weather event, regardless of whether customers were ultimately deenergized. This means that not all PSPS events result in customers being de-energized. PG&E submitted one such report with no customers de-energized. SDG&E did not activate its Emergency Operations Center to address a potential PSPS event in 2022 and thus filed no reports.

public is demonstrated by the record.⁵ Cal Advocates provides analysis and policy recommendations based on the monthly Fast Trip Outage data filed by PG&E, and also based on Fast Trip data collected from SCE and SDG&E. Cal Advocates' comments address the following issues: <u>6.7</u>

A. Discussion of the IOUs' Fast Trip Programs

- 1. The Implementation of Fast Trip has Caused the Number of Customer Outages in 2022 to Exceed the Number of PSPS Outages in 2019.
- 2. In 2022, Fast Trip Outages Increased even as High Fire Risk Weather Decreased.
- 3. Recommendations for the Commission Related to Fast Trip Programs.
- B. Discussion of PG&E and SCE's 2022 Post-Season PSPS Reports
 - 1. SCE Violates Notification Requirements Because It Does Not Accurately Forecast the Scope of Its PSPS Events.
 - 2. PG&E and SCE's Responses to Section 4.1 of the Post-Season Reporting Template (Fire Science and Meteorology) are Insufficient.
 - 3. PG&E and SCE should Improve Customer Awareness of Resiliency Programs.

C. Cal Advocates' Recommendations for the Improvement of De-Energization Reporting

1. Clarification should be made to the Standardized Post-Event Reporting Template to require utilities to report on the number of Medical Baseline Customers de-energized without proper notification.

II. COMMENTS

A. Discussion of the IOUs' Fast Trip Programs

In addition to PSPS events, each IOU now implements a Fast Trip program to

bolster its respective wildfire mitigation efforts. The IOUs have adopted Fast Trip

programs because they allow the IOUs to enable settings that automatically de-energize a

⁵ Assigned Commissioner's Ruling Addressing July 12, 2022 Motion and Noticing Workshop on Utility Response to Customer Impacts Associated with Fast Trip Power Outages, p. 2.

⁶ SCE Response to Cal Advocates Data Request No. Cal Advocates-SCE-R1812005-47.

² SDG&E Response to Cal Advocates Data Request No. Cal Advocates-SDG&E-R1812005-44.

circuit or circuit segment in the event of a detected fault such as vegetation contact on a conductor. Each IOU uses a different name for Fast Trip: PG&E's program is "Enhanced Powerline Safety Settings" or EPSS, which started in 2021, SCE's program is called "Fast Curve" and started in 2018, and SDG&E describes its program as a "Sensitive Relay Profile" or SRP which is a strategy it developed in 2010. For the purposes of these comments, all the above programs will be referred to collectively as Fast Trip.

While both Fast Trip and PSPS serve to minimize the risk of an ignition caused by utility infrastructure, the fundamental difference between PSPS and Fast Trip is that Fast Trip does not preemptively de-energize areas. Rather Fast Trip makes the system sensitive and more reactive to faults, which results in de-energization without notification to the affected customers when a fault occurs. The heightened sensitivity of circuits with Fast Trip enabled lines means that customers may experience a potentially lengthy power outage that might not have occurred under less sensitive profiles.⁸

1. The Implementation of Fast Trip has Caused the Number of Customer Outages in 2022 to Exceed the Number of PSPS Outages in 2019.

Three measures can be used to evaluate the impacts of Fast Trip and PSPS on customers: The number of outages experienced, the Customer Minutes Interrupted (CMI), and the Customer Average Interruption Duration Index (CAIDI).⁹ PG&E and SCE have successfully reduced the CMI (overall duration) of Fast Trip and PSPS outages over the last four years as seen below in Figure 1 and Figure 2. However, there has been a drastic increase in the number of customer accounts experiencing outages due to the implementation of Fast Trip as seen in Figure 3 and Figure 4.

⁸ PG&E's EPSS Fact Sheet provides a brief explanation of how the additional sensitivity works. https://www.pge.com/pge_global/common/pdfs/outages/enhance-powerline-safety-settings/epss-fact-sheet.pdf

⁹ CAIDI = Sum of Customer Minutes Interrupted Sum of Number of Customers Accounts Affected

During the 2022 fire season,¹⁰ PG&E Fast Trip outages de-energized over two million total customer accounts.¹¹ This was a 200% increase from the 2021 fire season which saw nearly 700,000 customer account outages due to Fast Trip. For comparison, the sweeping and unprecedented 2019 PSPS outages de-energized over 1.9 million customer accounts.¹² In the 2022 fire season SCE's Fast Trip outages de-energized 1,259,118 total customer accounts,¹³ an increase of 30% from the 2021 fire season. SCE's Fast Trip program has de-energized substantially more customer accounts than PSPS in their service area over the past four years.

 $[\]frac{10}{10}$ For the purposes of these comments, the fire season is defined as February to January of the following year. For example, the 2021 fire season is February 2021 through January 2022.

¹¹ PG&E Monthly Reports to SED: January 2023. <u>https://www.cpuc.ca.gov/industries-and-topics/wildfires/protective-equipment-device-settings</u> Accessed: January 18, 2023.

¹² Cal Advocates' DRs 2, 4, 7, 9, 10, 16, 21 in R1812005 and Post-Event PSPS Reports for all 2019 PSPS Events. Cal Advocates also notes that the 2019 PSPS events resulted in an Order to Show Cause against PG&E for its handling of the 2019 PSPS events, and an Order Instituting Investigation that levied ongoing penalties against all of the large IOUs for various failures to comply with Commission regulation.

¹³ SCE Response to Cal Advocates Data Request No. Cal Advocates-SCE-R1812005-47.



Figure 1: PG&E CMI 2019-2022^{14,15}





¹⁴ PG&E Monthly Reports to SED: January 2023. <u>https://www.cpuc.ca.gov/industries-and-topics/wildfires/protective-equipment-device-settings</u> Accessed January 18, 2023.

¹⁵ PG&E PSPS Post-Event Reports for 2019, 2020, 2021, and 2022. <u>https://www.cpuc.ca.gov/consumer-support/psps/utility-company-psps-reports-post-event-and-post-season</u> Accessed: March 8, 2023.

¹⁶ SCE Response to Cal Advocates Data Request No. Cal Advocates-SCE-R1812005-47.

¹⁷ SCE PSPS Post-Event Reports for 2019, 2020, 2021, and 2022. <u>https://www.cpuc.ca.gov/consumer-support/psps/utility-company-psps-reports-post-event-and-post-season</u> Accessed: March 8, 2023.



Figure 3: PG&E Customer Account Outages 2019-2022¹⁸ ¹⁹

Figure 4: SCE Customer Account Outages 2019-2022²⁰ ²¹



¹⁸ PG&E Monthly Reports to SED: January 2023. <u>https://www.cpuc.ca.gov/industries-and-topics/wildfires/protective-equipment-device-settings</u> Accessed January 18, 2023.

²⁰ SDG&E Response to Cal Advocates Data Request No. Cal Advocates-SDG&E-R1812005-44.

¹⁹ PG&E PSPS Post-Event Reports for 2019, 2020, 2021, and 2022. <u>https://www.cpuc.ca.gov/consumer-support/psps/utility-company-psps-reports-post-event-and-post-season</u> Accessed: March 8, 2023.

²¹ SCE PSPS Post-Event Reports for 2019, 2020, 2021, and 2022. <u>https://www.cpuc.ca.gov/consumer-support/psps/utility-company-psps-reports-post-event-and-post-season</u> Accessed: March 8, 2023.

The rapidly growing reliability impact to the public caused by Fast Trip is significant, especially in a year that saw relatively favorable weather conditions with fewer major fire-weather events (see section A.2, below).

Another major concern is that some customers were left without power for a potentially hazardous length of time. Despite the overall decrease in outage duration compared to past year PSPS events, 24% and 14% of outages in the 2022 fire season were longer than four hours for PG&E and SCE respectively.^{22, 23} Figure 5, below, tallies the rate at which Fast Trip outages have extended past four hours in duration over the past several years:

Utility	Total # of Fast Trip Outages	Time Period	% of Fast Trip Outages Averaging >4 hours
PG&E	3,002	2021-2022	32%
SCE	2,072	2018-2022	18%
SDG&E	102	2017-2022	61%

Figure 5: Fast Trip Outages Lasting Over Four Hours

The four-hour outage duration is important because the United States Department of Agriculture (USDA) has noted that a refrigerator will keep fresh food safe for up to four hours during a power outage, beyond which food may spoil and become unsafe to consume.²⁴ There are many other cost impacts to customers when they are left without

²² PG&E Monthly Reports to SED: January 2023. <u>https://www.cpuc.ca.gov/industries-and-topics/wildfires/protective-equipment-device-settings</u> Accessed January 18, 2023.

²³ SCE Response to Cal Advocates Data Request No. Cal Advocates-SCE-R1812005-47.

²⁴ <u>https://www.foodsafety.gov/food-safety-charts/food-safety-during-power-outage</u>.

power for extended periods of time including spoilage of medicines and being forced to travel to other areas with power.²⁵

Unlike PSPS, there is no notification before a Fast Trip outage because the outage is automatic. This lack of notice increases the risk of medical emergencies for customers that rely on electricity, especially Access and Functional Needs (AFN), and Medical Baseline Customers (MBL) that may rely on electricity to operate and maintain medical equipment or rely on refrigeration for medicines. The lack of prior notice becomes especially acute when outages are longer than four hours, as customers are not able to prepare ice packs or alternative refrigeration solutions before the onset of an outage. Effectively, in 2022, the vast majority of wildfire safety outages (both PSPS and Fast Trip) are conducted without prior notice and the increasing implementation of the Fast Trip has resulted in a less predictable energy supply for customers.

2. In 2022, Fast Trip Outages Increased even as High Fire Risk Weather Decreased.

Outages in 2022 increased even as high-risk weather events decreased. Reg Flag Warnings are typically issued by the National Weather Service when "warm temperatures, very low humidities, and stronger winds are expected to combine to produce an increased risk of fire danger",²⁶ and are used as a proxy to track the frequency to of high risk weather events.²⁷ As can be seen in Figure 6 and Figure 7, the number of Red Flag Warnings issued across both PG&E and SCE territories were substantially lower in 2022 than in previous fire seasons. In contrast with the less severe fire weather in 2022, customers experienced more system reliability issues characterized by seemingly random outages at the same times as they experienced few high fire risk weather days.

 $[\]frac{25}{5}$ D.21-06-014, p. 13: "The Commission identified the following 15 major areas of potential concerns: significant costs for customers related to the provision of a different source for energy supplies...(9) significant costs incurred by customers, such as businesses, during a power shutoff... includ[ing] the rental of portable generators; lost business revenues; lodging and restaurant costs for residents who leave the area while power is shutoff; loss of refrigerated foods and medicines; and general loss of public convenience".

²⁶ <u>https://www.weather.gov/mqt/redflagtips</u> Accessed: March 7, 2023.

²⁷ PG&E 2020 WMP Compliance Report from OEIS.



Figure 6: PG&E Red Flag Warnings²⁸





Despite the less extreme conditions in 2022 as reported by the National Weather Service, PG&E maintains that they had 31% more "elevated" wildfire risk days in

²⁸ https://mesonet.agron.iastate.edu/request/gis/watchwarn.phtml, Accessed February 3, 2023

²⁹ https://mesonet.agron.iastate.edu/request/gis/watchwarn.phtml, Accessed February 3, 2023

2022.³⁰ A partial explanation for this disconnect lies in the conditions under which PG&E considers risk to be "elevated" and decides to implement Fast Trip settings. As presented in their end of year report to shareholders and 2022 Wildfire Mitigation Plan Update,³¹ PG&E implements Fast Trip settings under less severe weather conditions than a red flag warning.³² SCE's Fast Trip settings are enabled under red flag warning conditions issued by the National Weather Service, and under Fire Weather Threat, Fire Climate Zone and thunderstorm threat conditions identified by the SCE Weather Services and the SCE Fire Science Group.³³

The Commission should examine the cost of such a management decision. As discussed above, de-energization, especially ubiquitous unnotified de-energization has implications for all customers, especially for AFN and MBL customers and especially when a quarter of all de-energizations are still over four hours in duration.

3. Recommendations for the Commission Related to Fast Trip Programs.

a) The Commission Should Establish a Proceeding to Track and Discuss Issues Related to Fast Trip Programs.

Cal Advocates recommends the Commission initiate a proceeding to track and discuss issues related to Fast Trip programs implemented by the IOUs, either within the instant proceeding (Rulemaking 18-12-005) or a new proceeding. There is currently no specific proceeding that addresses this issue, which makes tracking or referencing any data and discussion on the matter potentially unorganized and difficult. It also leaves the Commission unable to create a proceeding record related to the issue. As Fast Trip has

<u>30</u> 2022 Fourth Quarter and Full Year Earnings. <u>https://investor.pgecorp.com/financials/quarterly-earnings-reports/default.aspx</u> Accessed: March 7, 2023.

³¹ PG&E 2022 Wildfire Mitigation Plan Update – Revised (Redline), p. 891.

³² 2022 Fourth Quarter and Full Year Earnings. <u>https://investor.pgecorp.com/financials/quarterly-</u> <u>earnings-reports/default.aspx</u> accessed: March 7, 2023.

³³ Final Decision on Southern California Edison Company's WMP 2022 Update Appendix A. pg. 9 <u>https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=52703&shareable=true</u> accessed: March 16, 2023.

become more broadly used and its impacts have extended to impacting millions of Californians, it is critically important that the Commission track and understand these programs better and have a way for all interested stakeholders to provide input. As an initial matter, Cal Advocates recommends that the new proceeding examine how Fast Trip settings are deployed, how customer communications regarding Fast Trip are issued, and how PSPS customer support programs (e.g., generator rebates, battery backups, Community Resource Centers) can be leveraged to also support customers during Fast Trip outages. Additional policy questions should also be examined in more depth by the Commission, the IOUs, and stakeholders, including but not limited to the appropriate balance point between reliability and safety, the modeling and forecasting tools to use to determine when and where Fast Trip settings are deployed, and proper Fast Trip activation thresholds.

b) The Commission Should Require All the Utilities to Report Operational Procedures, Seasonal Performance, and Lessons Learned.

Cal Advocates recommends the Commission perform additional oversight of the IOUs Fast Trip programs to better understand both the operational procedures of and impacts resulting from each IOU's program. PG&E already submits outage data monthly. Cal Advocates recommends that the same submission schedule be required of all the IOUs. However, current data metrics are only submitted by PG&E and, therefore, may not be "one size fits all" to effectively track Fast Trip performance statewide. Cal Advocates further recommends that the current reporting metrics be reviewed and updated as necessary within the new or instant proceeding. As part of this effort, Cal Advocates recommends a new reporting field that would require the IOUs to explain why they were unable to restore power in under four hours (e.g., tree down on conductor), if a Fast Trip outage exceeds four hours in duration.

Although Fast Trip programs minimize the risk of ignition during hazardous firecausing weather events, the impact of de-energization caused by Fast Trip on communities cannot be overlooked. The utilities have the obligation to optimize their systems to be safe from wildfire while maximizing reliability to customers. The Commission and stakeholders should have the opportunity to review each IOUs' program to ensure the IOUs are developing their Fast Trip programs accordingly.

B. Discussion of PG&E and SCE's 2022 Post-Season Reports

1. SCE Violates Notification Requirements Because It Does Not Accurately Forecast the Scope of Its PSPS Events.

SCE consistently failed to accurately forecast the scope of its PSPS events in Fall 2022. SCE describes sudden shifts in wind or onsets of rapidly escalating, unforeseen weather that caused SCE to de-energize circuits it did not initially expect to de-energize, often resulting in a failure to send the Commission-required schedule of notifications to de-energized customers.³⁴ In the six PSPS events that SCE executed in June through November of 2022, three events caused customers to lose power. In this subset of PSPS events where customers were de-energized, SCE failed to meet the Commission's notification requirements for a significant portion of them, as shown in Figure 8, below:

SCE PSPS Event	Percentage of Customers that received less than 24 hours' notice of PSPS	Percentage of customers that received no notice of de-energization at all
July 22-23	81%	14%
November 16- 20 ³⁵	86%	86%
November 21-25	51%	<1%

Figure 8: Missed Notification Rates in SCE's 2022 PSPS Events

Poor forecast accuracy causes a cascading effect where SCE is unable to send deenergization notifications according to the Commission's required notification schedule

³⁴ SCE's Post-Event Report for its November 19, 2022 PSPS Event, p. 26.

³⁵ To make matters worse, 148 or 84% of Medical Baseline customers de-energized in SCE's November 16 to 20, 2022 PSPS event received no notice of de-energization. All Medical Baseline customers received at least some notice in SCE's July 22 to 23 and November 21 to 25 PSPS events. DR Cal Advocates- SCE- R1812005- 48, Q02.

and is also unable to appropriately model the risks and benefits of de-energization before making a decision to shut off power.³⁶ Forecasting problems that cause missed notifications are a systemic and persistent problem at SCE, as described in these comments and at length in Cal Advocates' comments on SCE's 2021 Post-Season PSPS Report, filed one year ago on March 21, 2022.³⁷ The Commission should carefully examine the causes of SCE's persistent forecasting problems and notification violations.

2. PG&E and SCE's Responses to Section 4.1 of the Post-Season Reporting Template (Fire Science and Meteorology) are Insufficient.

In their Post-Season PSPS Reports, the IOUs are required to discuss how their meteorology and fire science predictive models performed over the year, and what changes will be made to improve performance.³⁸ SCE's response to this requirement is insufficient, and not useful in analyzing how SCE plans to improve its forecasting issues. For example, SCE states that its machine learning models were "40% more accurate for sustained winds and 44% more accurate for wind gusts."³⁹ Use of these percentages, without knowing how accurate the models were previously, is not a helpful metric for determining how much benefit to customers SCE is providing in terms of more surgically implemented PSPS events.

In other words, if the models started off with poor accuracy, a percentage improvement is still relatively poor accuracy, which may continue to result in large numbers of customers not receiving the required PSPS notifications. Additionally, Table 20 of SCE's report that describes biases in forecast systems lacks any sort of description, analysis, or even acronym key to aid readers in understanding the work SCE is doing to

³⁶ SCE notes that it was unable to run its FireCast model that assists with assessing risks and benefits of de-energization on circuits not originally forecast to be in scope. *See* SCE 2022 Post-Season Report, p. 27.

³⁷ Cal Advocates Comments on the IOUs' 2021 Post-Season PSPS Report, pp. 7-8.

 ³⁸ Decision (D.) 21-06-034 required the Commission's Safety and Enforcement Division (SED) to develop a template for the IOUs to follow to report PSPS activities over the previous calendar year.
 ³⁹ SCE 2022 Post-Season PSPS Report, p. 25.

analyze its model biases.⁴⁰ SCE leans heavily on development of hundreds of machine learning models to improve its forecasting performance.⁴¹ As such, SCE should indicate in its report the amount of time that is expected to "train" its new machine learning models. SCE's report should also state when it expects to improve the current models' forecast accuracy. SCE should also be required to show how it validated its improved models to correctly forecast de-energization on circuits that previously received no notification due to unforeseen conditions.

For its part, PG&E did not de-energize any customers in 2022. Ostensibly, PG&E used its meteorology and fire science predictive models to determine that PSPS was not needed. PG&E states that because it did not de-energize any customers for PSPS during the October 22-24 Weather Event, Section 4.1 is not applicable.⁴² Cal Advocates disagrees. Even though no PSPS events is a favorable outcome for customers, PG&E must still describe how it used its models to conclude that the risk of ignition did not warrant de-energizing customers.

The Commission should order SCE and PG&E to refile their reports within 30 days that provide improved explanations of information that they should have provided in this section. The Commission should also update the post-season reporting template to require SCE and PG&E to provide a more detailed explanation in future year reports.

3. PG&E and SCE should Improve Customer Awareness of Resiliency Programs.

In its 2022 Post-Season Report, SCE indicates that its systemwide residential 2022 survey showed that customers both in and out of High Fire Risk Areas want more communications via email to increase knowledge and awareness throughout the community of wildfire safety initiatives including PSPS notifications.⁴³ Similarly, PG&E's survey data of its customers indicates that a significant portion of surveyed

⁴⁰ SCE 2022 Post-Season PSPS Report, p. 26.

⁴¹ SCE 2022 Post-Season PSPS Report, pp. 25-26.

⁴² PG&E 2022 Post-Season Report, p. 27.

⁴³ SCE 2022 Post-Season PSPS Report, p. 207.

customers were interested in resilience programs. For example, 39% of customers were interested in PG&E's Portable Battery Program. However, only 26% of people who were aware of the program actually used it.

Given the significant expenditures these programs accrue, the IOUs should be required to further describe how their messaging campaigns operate regarding customer resiliency programs such as generator rebates, battery backups, and wildfire communications more generally. The IOUs should more clearly explain, with supporting documentation, how the programs were advertised and offered to customers.

Cal Advocates recommends that, consistent with customer feedback, the IOUs use more email communications about wildfire preparedness (including wildfire safety outages), and that the IOU's continue to encourage customers' adoption of programs that can mitigate the worst impacts of PSPS and Fast Trip outages. As Fast Trip outages become more prevalent, demand for outage resilience programs such as generator rebates or backup batteries may increase. The Commission should support a cross-over of programs that mitigate the impacts of PSPS to also mitigate Fast Trip impacts, especially since Fast Trip outages cannot be precisely forecast and thus do not include customer notifications and support such as Community Resource Centers.

C. Overarching Recommendations for Improvement of De-Energization Reporting.

1. Clarification should be made to the Standardized Post-Event Reporting Template to require utilities to report on the number of Medical Baseline Customers de-energized without proper notification.

In Cal Advocates' comments on last year's 2021 Post-Season Report, Cal Advocates outlined several ways in which the Post-Event Reporting Template could be improved to aid stakeholder review of the IOUs' 10-day Post-Event Reports.⁴⁴ To date, Cal Advocates is not aware of any action taken to update the PSPS Post-Event Reporting

⁴⁴ Cal Advocates Comments on the IOUs' 2021 Post-Season PSPS Report, pp. 12-14.

Template, despite several outstanding issues. Chief among Cal Advocates' concerns is that the IOUs are not required to report on how many MBL customers were not properly notified according to the Commission's required schedule of PSPS notifications.⁴⁵ The problem with the existing template format is that the IOUs are only required to state how many MBL customers received a notification (even if they were not de-energized), not how many MBL customers were missed. Just because an IOU notified many more MBL customers than were de-energized, it does not necessarily mean that the IOU notified *every* MBL customer who was de-energized. This data gap is not addressed by "Template Table 4: Breakdown of Notification Failures" (Table 4), as that table does not require the IOUs to report how many MBL customers did not receive the required schedule of notifications.

The Safety and Enforcement Division should issue an update to the template that includes modifications to Table 4 to identify where an IOU failed to properly notify MBL customers of an upcoming PSPS event. Given that MBL customers are often dependent on electricity to power medical equipment and/or refrigerate medicine, missed notifications to this subset of customers is a critical metric for measuring IOU compliance with Commission regulation.

III. CONCLUSION

Cal Advocates recommends that the Commission adopt these recommendations for the general improvement and development of Fast Trip and PSPS programs across the California IOUs.

⁴⁵ SED PSPS Post-Event Report Template, p. 9. The present template requires the IOUs to report notification failures to Public Safety Partners, Critical Facilities and Infrastructure, and all other affected customers. Absent is a separate breakdown of notification failures to Medical Baseline Customers.

Respectfully submitted,

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