ACTON TOWN COUNCIL
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January 12, 2026

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Electronic Filing of 13 pages and 3 attachments
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Subject: Acton Town Council Comments on the Draft Decision Issued by the Office of Electrical Infrastructure Safety to Approve Southern California Edison Company's 2026-2028 Base Wildfire Mitigation Plan.

Reference: Docket #2026-2028-Base-WMPs.

Dear Deputy Director Marino;

The Acton Town Council (Council) appreciates this opportunity to provide comments on the Draft Decision (Decision) issued December 23, 2025 by the Office of Electrical Infrastructure Safety (OEIS) to approve Southern California Edison's (SCE's) 2026-2028 Wildfire Mitigation Plan (WMP). Acton is a rural unincorporated community in the County of Los Angeles and is located in the northern foothills of the San Gabriel Mountains. The Acton Town Council is a volunteer organization comprised of Acton residents that are elected to represent the interests of the community. As set forth in the bylaws, the purpose of the Acton Town Council is to present community concerns to state, local, and federal agencies as well as gather and convey community views on issues that affect the Community of Acton.

The Council understands from the Decision that OEIS is approving the WMP but still requires SCE to complete additional tasks. The Acton Town Council would like to share with you some community insights regarding the elements of SCE's WMP pertaining to

Public Safety Power Shutoffs (PSPS) and powerline de-energization concerns. The Council regrets that we had neither the capacity nor the resources needed to participate in previous activities undertaken in the referenced Docket, but we trust that the information provided herein will be useful. In the interest of brevity, the community insights provided herein are presented in a list format and in no particular order.

SCE De-energization Decisions In Acton Do Not Comply with WMP PSPS Protocols.
Since 2019, the Community of Acton has routinely experienced the substantially adverse effects of SCE PSPS activities, and Acton is among the communities in California that are most affected by PSPS events. Because of this, the Council has actively participated in various PSPS-related proceeding initiated by the California Public Utilities Commission (Commission) and we have carefully analyzed PSPS protocols set forth in various SCE WMP documents that have been approved over the last 7 years. We have also expended considerable efforts in assessing SCE's PSPS activities and, in particular, evaluating the extent to which SCE's de-energization decisions conform with the PSPS decisionmaking protocols that SCE purports to follow; our findings are always summarized in formal comments which we file with the Commission in response to the "Post Event Reports" that SCE submits after each PSPS event. In every instance, the Council has found that SCE's PSPS de-energization decisions in Acton ***did not*** comply with the de-energization protocols that were set forth in SCE's WMP documents and as a result, Acton residents routinely experienced dangerous and entirely unwarranted power shutoffs *lasting for days*. Given that the WMP which OEIS is poised to approve will formally "codify" all the PSPS decision protocols that SCE will apply to the Community of Acton over the next several years, the Acton Town Council considers it essential that these protocols be examined and their efficacy weighed.

Toward this end, the Acton Town Council has analyzed the PSPS protocols in SCE's 2026-2028 WMP, and notes that they appear to be identical to SCE's previous PSPS protocols because they are based on two quantitative factors: wind levels, and the Fire Potential Index (FPI). Specifically, pages 56 and 227 of the WMP explain that the "de-energization thresholds" (i.e. the levels at which a power shutoff is supposedly triggered) for isolatable circuit segments that are fitted with covered conductor (i.e. "hardened") are windspeeds above 40 mph and wind gusts above 58 mph, and according to Table SCE B-01 on page 554, the "de-energization thresholds" for "hardened" circuits are 1) an FPI of 13 in all Fire Climate Zones other than "Zone 1 Coastal"; AND 2) sustained windspeeds > 40 mph OR wind gusts > 58 mph. Together, these statements constitute a commitment by SCE that

circuits will not be de-energized in communities like Acton which have covered conductor and are not located in a "Zone 1 Coastal" area until the FPI value exceeds 13 AND winds in the vicinity of the circuit exceed either a sustained speed of 40 mph or gusts of 58 mph. The power shutoff thresholds set forth in the 2026-2028 WMP are identical to the thresholds that SCE has ostensibly applied in all recent PSPS events. For example, SCE has claimed that it utilizes the 40 mph sustained and 58 mph gust wind thresholds for hardened circuits since at least 2022[1]; SCE also claims that it has used the same equation to calculate FPI values since 2021[2]. However, and as explained in more detail below, history shows that SCE does not apply the wind de-energization thresholds that were claimed in previous WMPs and reiterated in the 2026-2028 WMP; history also shows that SCE applies variable FPI thresholds in Acton which cannot be substantiated. As such, it would be imprudent for OEIS to accept without question the claims that are made in the 2026-2028 WMP regarding SCE's de-energization decisionmaking processes.

SCE Does Not Apply the Windspeed Thresholds Claimed in the 2026-2028 WMP in Acton.

For many years, the Council has explained to the Commission that SCE routinely applies much lower wind thresholds that what is claimed in approved WMPs to de-energize circuits in Acton; these explanations were provided in Council comments on SCE Post Event reports (some of which are provided in Attachment 1). To illustrate this, Table 1 summarizes the peak wind data recorded on three of the four distribution circuits in Acton in the 12 hours before each power shutoff was initiated in January 2025; these data clearly show that SCE *does not* utilize the de-energization thresholds that are claimed in the 2026-2028 WMP.

The Council has endeavored to understand why SCE initiated so many power shutoffs in Acton in January, 2025 when windspeeds were well below the de-energization thresholds claimed by SCE WMPs, and at a community meeting on August 27, 2025, SCE indicated that thresholds were lowered because SCE understood that firefighting resources were limited. However, the Council has conferred with County officials who indicated that at no time was SCE ever informed that fire response resources in Acton were stretched or otherwise overtaxed; therefore, resources were not sufficiently limited to justify SCE's unwarranted power shutoffs in Acton. SCE's Post Event Reports state that FPI thresholds were lowered in January because the "Geographic Area Coordinating Center" (GACC) raised the

[1] See page 550 of SCE's 2022 WMP Update found here: https://www.sce.com/sites/default/files/custom-files/SCE%202022%20WMP%20Update.pdf

[2] See Page 3 of SCE's 2021 Publication "Quantitative And Qualitative Factors For PSPS Decision-Making" found here: https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=53515&shareable=true.

Table 1. Wind data recorded Before Power Shutoff Events on Circuit Segments in Acton.

Date	Circuit	Peak Winds recorded in 12 hours before shutoff	
		Sustained (mph)	Gust (mph)
January 8, 2025	Bootlegger	32.3	49.1
	Shovel	29.2	46.1
	Pick	34.8	51.3
January 9, 2025	Bootlegger	30.2	52.8
January 11, 2025	Bootlegger	24.3	32.6
January 13, 2025	Bootlegger	8.8	24.6
January 20, 2025	Bootlegger	31.1	50.7
	Shovel	34.1	50.2
	Pick	34	56.9
January 22, 2025	Bootlegger	7.3	18.8
January 23, 2025	Bootlegger	31.2	41.3
	Shovel	29.3	41
	Pick	31.4	48
January 25, 2025	Bootlegger	22.8	33.5

This table summarizes the tabulated information provided in the comments on SCE Post Event Reports prepared by the Acton Town Council; the source of the reported windspeed data is SCE weather stations.

"preparedness level" to 4, but SCE WMPs clarify that GACC data only informs FPI thresholds; thus, it has no effect on windspeed thresholds. In other words, SCE's PSPS decisionmaking process remains a mystery. The only thing that is certain is that, at least in Acton, SCE does not implement the PSPS protocols described in the 2026-2028 WMP.

It is also important to point out that the substantially lower windspeed de-energization thresholds that SCE applied to Acton in January of 2025 are not unusual; in fact, Council comments submitted to the Commission (provided in Attachment 1) show that SCE has routinely applied substantially reduced windspeed de-energization thresholds in Acton for more than 5 years and therefore needlessly cut power in our community without explanation or justification. In the past, the Acton Town Council has observed that SCE de-energized distribution circuits in Acton based on wind measurements collected on transmission line towers that are located high on ridgelines and miles away from the de-energized circuits. This untoward practice may explain some of SCE's inexplicable shutoff decisions and if so, then SCE clearly made power shutoff decisions based on non-representative wind data that did not reflect actual conditions on the circuits that are de-energized. Other anomalies observed in SCE's power shutoff decisions and discussed in the comments provided in Attachment 1 include:

- SCE often shuts off power to residents in Acton that are served with 100% underground distribution lines from the Acton substation. The distribution circuits serving these residents pose no wildfire risk because they are all underground, but SCE de-energizes them anyway.
- SCE applies arbitrary and unsubstantiated FPI thresholds in Acton (as discussed in more detail below).
- SCE weather station data show that distribution facilities in Acton which are damaged during wind events did not experience particularly excessive wind levels and the fact that they were damaged indicates that the facilities were not being maintained in accordance with the Commission's General Order 95 (GO 95).

Given SCE's historically persistent failure to apply windspeed de-energization thresholds in Acton in accordance with previously approved WMPs, OEIS should not presume that SCE intends to comply with the PSPS procedures enumerated in its 2026-2028 WMP.

SCE Cannot Substantiate the Variable FPI De-energization Thresholds Applied to Acton.

As explained above, page 554 of SCE's 2026-2028 WMP asserts that, in "hardened" areas with covered conductor, the de-energization threshold for the "Fire Potential Index" (FPI) parameter is 13 in all Fire Climate Zones other than "Zone 1 Coastal"; this would imply that the FPI de-energization threshold in Acton is 13. However, the actual FPI de-energization thresholds that SCE applies to Acton can be as low as 12, and SCE has cut power in Acton when FPI values were well below 12[3]. A footnote on page 554 states that "thresholds may be adjusted in an actual PSPS event based on the risks and complexities associated with the event and the specific risk factors associated with each circuit"; nonetheless, such adjustments must be made based on clear, specific, and quantitative factors and they must be defensible. The clear, specific, quantitative factors that determine SCE's FPI de-energization thresholds are set forth by SCE's 2026-2028 WMP in the equation depicted in Figure 10-05 as:

- Vegetation dryness.
- Energy Release Component of the vegetation.
- 10-hour dead fuel moisture time-lag (from bi-weekly vegetation sampling).

[3] For example, SCE shutoff the Bootlegger circuit on January 8 when the FPI was only 11.14; for that PSPS event, half the circuits in Acton were assigned an FPI de-energization threshold of 12, and the other half were assigned an FPI de-energization threshold of 13. All of this is discussed on pages 13 and 14 of the Acton Town Council comments dated March 18, 2025 pertaining to SCE's Post Event Report for the January 2 PSPS event; these comments are provided in Attachment 1.

- 100-hour dead fuel moisture time-lag (from bi-weekly vegetation sampling).
- Moisture content value of living vegetation (from bi-weekly vegetation sampling).
- The "degree of greenup" (from bi-weekly vegetation sampling).
- The fuel loading modifier (either 0.5, 0.75, or 1.0).
- The "weather component" which is determined from a "look up" table that considers windspeed and dewpoint depression (which is the difference between the actual temperature and the dewpoint temperature).
- The "circuit health".
- The calculated "consequence analysis".

Over the last six years, the Acton Town Council has asked SCE many times to provide data pertaining to these parameters so that we could substantiate the various FPI de-energization thresholds that SCE assigns to Acton and assess the actual FPI values that occurred when power shutoffs were initiated. These requests were made because the FPI thresholds assigned to Acton tend to vary across the community and over a very short period of time. These variations make no sense, because vegetation characteristics (fuel loading, dryness, energy release, etc.) and "weather component" characteristics are generally uniform across the Pick, Shovel, and Bootlegger circuits within the community of Acton. These requests were generally ignored, but SCE did explain several years ago that the parameters regarding which the Council sought information are actually inputs to a proprietary model that SCE does not own and because of this, SCE cannot provide the data needed to substantiate the FPI values reported for each de-energized circuit. This is odd, given that each component of the FPI equation is a discreet, quantitative value. At the very least SCE should be able to provide GACC preparedness level data and "Fire Science Area of Concern" maps which are allegedly used to determine FPI values; SCE should also be able to produce weather data and fuel data (because there are only 16 fuel sampling sites across SCE's entire HFRA[4]). Nonetheless, and as the Acton Town Council understands it, SCE is unable to provide 1) the data used to establish FPI de-energization thresholds for each circuit; and 2) the data that is relied upon to shutoff power because of a claimed exceedance of an FPI de-energization threshold.

The Acton Town Council believes that the calculated FPI values which SCE utilizes to shutoff power should be reproducible and withstand scrutiny by the public and responsible agencies; this is important for both transparency and continuous improvement which, the

[4] Page 389 of the 2026-2028 WMP.

Council understands, is also important to OEIS[5]. However, and insofar as the Council can determine, the FPI values that SCE relies upon to shutoff power cannot be verified, reproduced, or even justified. We consider this to be a substantial deficiency in SCE's PSPS protocols, and it can only be rectified by a directive from a responsible agency that compels utilities to maintain sufficient data and records to justify FPI values that are used to initiate power shutoffs *particularly when they are inconsistent with the FPI thresholds that are asserted in approved WMPs*.

SCE's Transmission Line De-Energization Protocols are Deficient.

SCE has developed protocols for de-energizing transmission lines which operate at or above 200 kV[6] based on stakeholder input[7], and while the Acton Town Council has tried diligently to obtain these protocols, SCE persistently refuses to provide them[8]. The Council understands that SCE is disinclined to de-energize transmission facilities because of the potential for "significant customer impacts and reliability issues"[9]. Nonetheless, SCE should initiate shutoffs on its transmission system when conditions warrant, and SCE's WMP should clearly set forth protocols that ensure transmission lines are de-energized when appropriate. The Council is both surprised and disappointed that we could not find any information pertaining to transmission de-energization protocols or criteria in SCE's 2026-2028 WMP.

Our concerns regarding the lack of transmission de-energization protocols in SCE's 2026-2028 WMP are not unfounded and they do not stem from idle anxieties. To the contrary, the matter is critical to the Community of Acton which has more transmission lines clustered in a Very High Fire Hazard Severity Zone than any other community in California[10]. These lines are so concentrated together that they do not comply with SCE's

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[5] Page 17 of the Decision suggests that OEIS wants SCE's model frameworks to produce reliable outputs and support transparency, reproducibility, and continuous improvement to ensure the models are consistently validated and verified.

[6] General Order 131 issued by the California Public Utilities Commission defines "transmission" to mean facilities that operate at or above 200 kV.

[7] SCE was required to prepare these protocols by the California Public Utilities Commission (see Page A26 of Commission Decision D.19-05-042).

[8] The Acton Town Council submitted discovery requests to SCE and even filed a motion to compel with the Commission; the protocols were not disclosed.

[9] See page 8 of SCE's Publication "Quantitative and Qualitative Factors for PSPS Decision Making" found here: https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=53515&shareable=true

[10] The Acton Town Council estimates that there are nearly 20 high voltage transmission lines concentrated around the Vincent substation in East Acton; some of these lines are owned by the Los Angeles Department of Water and Power, but most are owned by SCE.

transmission design standards[11] and, while some of these facilities are only 13 years old, the Council understands that many were constructed well before 1970. The high concentration and the advanced age of the transmission facilities in Acton pose unique and significant wildfire risks that SCE and responsible agencies have heretofore ignored despite our attempts to elevate these concerns in public meetings and in comments filed in Commission proceedings. The Acton Town Council is now taking this opportunity to convey these concerns to OEIS by providing the following excerpt from comments that the Acton Town Council filed with the California Public Utilities Commission on March 18, 2025 in response to SCE's PSPS Post Event Report filed for PSPS activities in January, 2025.

As the Council understands the application of General Order 95 (GO 95), the transmission facilities [in Acton] are designated as either "Class E" or "Class H" supply circuits (depending on voltage - Section 20.6) that must be constructed and maintained as "Grade B" equipment (Section 42). These facilities are all above a 3,000 foot elevation; some are cylindrical towers while others are lattice structures constructed with galvanized steel members. For the cylindrical towers, GO 95 requires a minimum design wind load of 6 pounds per square foot (psf) while the lattice steel towers probably have a minimum design wind load of 10 psf (Section 43.1). Both have a Safety Factor of 1.25 (Table 4); thus, GO 95 requires the cylindrical towers to be constructed to withstand a wind load of 7.5 psf (equivalent to 54 mph) and the lattice towers to be constructed to withstand 12.5 psf (equivalent to 69.9 mph). Additionally, GO 95 imposes design standards for transmission line conductors and hardware fixtures (conductor fastenings, pins, insulators, etc.); because they are typically rounded in shape, their base wind load design requirement is assumed to be 6 psf (Section 43.1) and they have a design safety factor of 2 (Table 4). This suggests that transmission line conductors and hardware fixtures in Acton are constructed to withstand a minimum wind load of 12 psf or 68.5 mph.

***However**, GO 95 does not require transmission facilities to be replaced until their safety factors are reduced to less than two-thirds of the original safety factors set forth in Table 4 (Section 44.3). In other words, the working Safety Factor for the conductors and hardware fixtures on SCE's transmission facilities in Acton is only 1.33, and SCE is not required to replace such equipment until the Safety Factor drops below this value. Applying this 1.33 working Safety Factor to the 6 psf design standard yields an **actual replacement wind load standard of 8 psf (or 56 mph)** for transmission fixtures.*

The wind event that prompted SCE's January 2 PSPS activities was of great concern to the Council because winds were predicted to be greater than 70 mph (and therefore exceed all GO 95 design standards for transmission facilities in Acton). After all, the concentrated placement of so many transmission lines on the east side of the community ensures that any wildfire they spark during "Red Flag" conditions would quickly sweep west and engulf the entire

[11] This fact was revealed in evidentiary hearings convened by the California Public Utilities Commission for the Tehachapi Renewables Transmission Project. The Acton Town Council has SCE's transmission design standards, but cannot include them here because they are marked "CEII".

community. Given these risks, and the sheer magnitude of the winds that were projected to occur, the Council assumed that some consideration would be given to the de-energization of the transmission lines in Acton during the January 2 PSPS event. However, SCE's Post Event Report makes no mention of any arrangements to de-energize these transmission lines before the PSPS event (such as communicating with CAISO as required by the PSPS Guidelines). In fact, the Report omits any discussion of transmission line de-energizations other than a footnote which states 220 kV facilities in Eaton Canyon which were de-energized because of a wildfire and the PSPS event.

To assess whether the Acton transmission lines should have been within the scope of the January 2 PSPS event, the Council undertook an analysis of the weather conditions on the transmission circuits in Acton. Wind measurements recorded by SCE weather stations on transmission facilities and at the Hauser Mountain communication site located just south of four SCE 500 kV transmission lines are summarized in Table 4. The first set of columns list the peak wind measurements recorded at each transmission weather station in the 12 hours before SCE initiated power shutoffs on all distribution circuits in Acton and the second set of columns report peak winds measured throughout the wind event from January 7 at noon to January 14 at noon. These results demonstrate that several transmission weather stations registered wind gusts that exceeded 60 mph and were therefore considerably higher than 56 mph (8 psf) replacement standard imposed by GO 95 for transmission hardware fixtures (conductor fastenings, pins, insulators, etc.) One transmission line location (weather station 555SE) recorded a wind gust of nearly 68 mph (or 11.8 psf) which very nearly exceeded the 12 psf construction standard imposed by GO 95 for transmission hardware and fixtures!

Additionally, the peak wind measurements reported in Table 4 were not singular events; to the contrary, SCE's transmission weather stations show that winds exceeding 55 mph frequently occurred during the PSPS event. This fact alone should have prompted SCE to at least consider de-energizing the transmission lines in Acton; however, it appears that SCE did not do so.

Table 4. Wind Measurements from Weather Stations on SCE Transmission Facilities.

		Peak Conditions in 12 Hours Before Power Shutoffs[a]						Peak Conditions Throughout Power Shutoffs[b]					
		Windspeed			Wind gust			Windspeed			Wind gust		
	Weather Station ID	mph	Date	Time	mph	Date	Time	mph	Date	Time	mph	Date	Time
822SE	Arrastre Ridgeline	17.3	January 8	0020	34.8	January 8	1300	17.6	January 10	0420	34.8	January 8	0000
804SE	Julian's Ridge	42.8	January 7	1200	61.5	January 7	1200	46.4	January 10	2200	61.5	January 7	1200
764SE	Kentucky Springs ridgeline	37.1	January 8	1250	48.3	January 8	1210	37.1	January 8	1250	50.7	January 9	2240
756SE	Rough Road ridgeline	38.9	January 8	1150	51.2	January 8	1140	44.4	January 9	2200	60.2	January 9	2140
547SE	West Side AFH "Wolfie"	24.8	January 8	1220	46.7	January 8	1220	24.8	January 8	1220	48.9	January 9	0740
555SE	East Side AFH "N3"	26.6	January 7	1420	67.8	January 8	1230	49.3	January 10	0550	67.8	January 8	1230

[a] The time frame is January 7 at 1200 PM to January 8 at 1 PM

[a] The time frame is January 7 at 1200 PM to January 14 at 1200 PM

The Council's concerns regarding the wildfire risk posed by SCE's transmission facilities are not unfounded particularly in regard to the oldest transmission facilities (some of which we believe are approaching 70 years of age). We are fully cognizant of the circumstances surrounding the Saddle Ridge fire in 2019 in which a 220 kV transmission line that was

constructed in 1970 (and is thus younger than transmission facilities in Acton) ignited a wildfire during "Red Flag" conditions. According to the Commission's Incident Investigation Report[12], the transmission towers were constructed in accordance with the applicable GO 95 wind load standard, but they were located in an area known to have wind loads that exceeded this standard (page 3). The Incident Report also noted that what triggered the wildfire was the failure of a fitting that held an insulator string in place; the fitting showed significant corrosion and fatigue (page 4 and figure 5). According to SCE, the expected service life of the fitting was 100 years (page 4) but it obviously did not even make it to 50 years. For reasons that are not clear, the Commission's Incident Report does not consider or report wind speeds; it merely states "there is no evidence to suggest that loading conditions were abnormal or in any way greater than the maximum working load multiplied by the applicable safety factor" (page 8). However, the "Fire Investigation Report" prepared by the City of Los Angeles Fire Department (LAFD) indicates that there the Saddleridge Fire broke out during Red Flag conditions with winds in excess of 60 mph. The Saddleridge fire killed one person, injured 8, and threated 23,000 homes, and according to the combined information from the LAFD and Commission reports, it was the result of a failed transmission fixture on a 50 year old transmission tower that did not even make it half way through its expected service life because it apparently failed when it encountered 60+ mph winds. The circumstances surrounding the transmission facilities in Acton during the January are equally worrisome: Acton's transmission facilities are much older, they experienced wind conditions that exceeded Commission equipment replacement wind load standards, there are a lot more of them, and they are all packed together in the east side of the community where they will do the most damage if a wildfire is ignited. Yet, apparently SCE never even considered de-energizing them. All of this is intrinsically unreasonable.

The Council is also cognizant of the evidence that is mounting which indicates that SCE transmission facilities were involved in the Eaton Fire that broke out at 6:15 PM on January 7. The Council has reviewed wind data from weather stations in the vicinity of Eaton Canyon, and notes that a weather station located less than half a mile northeast of SCE's transmission facilities (Station No. HNGC1 23) registered a wind gust of 68 mph at 5:58 (just 17 minutes before the Eaton Fire ignited). Additionally, in the four hours preceding the ignition, that same weather station recorded wind gusts ranging from 65 mph to 70 mph. These circumstances further support the Council's contention that SCE should have at least considered de-energizing the transmission lines during the PSPS events in January.

Since writing these comments in March, 2025, the Acton Town Council has obtained additional data from weather stations in the vicinity of the Eaton Fire, and notes that the HNGC1 weather station just north of the ignition point recorded a peak wind gust of 85 miles per hour between 17:58 PM and 18:58 PM which is the window of time in which the

[12] This report is provided in Attachment 2.

Eaton fire ignited. For the SCE transmission facilities that ignited the Eaton Fire, GO-95 imposes a cylindrical wind standard of 8 psf, a safety factor of 2, and a replacement requirement when the structure strength is reduced to 2/3 of the safety factor standard. By reconciling these data, it must be concluded that GO-95 designates cylindrical structures on the transmission facilities that ignited the Eaton Fire to be structurally acceptable until they are incapable of withstanding 64 mile per hour winds. However, windspeeds in the vicinity of the transmission facilities that sparked the Eaton Fire substantially exceeded the 64 miles per hour standard imposed by GO-95; *therefore, these lines should have been de-energized*.

Regarding the Saddleridge fire and the Commission findings pursuant thereto, it is important to note that the fitting which broke appears to have been corroded from the inside (see Figure 5 in Attachment 2); it is assumed that this is why the weakness was not detected during the many inspections that SCE performs. SCE's WMP does mention the Saddleridge Fire (see page 34) but merely states "Los Angeles City Fire Department opined that the cause of the fire was undetermined". Incredibly, SCE fails to point out that the Commission also investigated the Saddleridge fire, and found that the transmission facilities where the fire ignited violated GO-95 in multiple ways.

The information provided above clearly demonstrates the need for transmission facility de-energization protocols and that responsible agencies should begin the difficult task of developing transmission de-energization protocols sooner rather than later. This effort must be undertaken in an open and public process, and the protocols must be incorporated in WMPs and made binding on utility actions. The Acton Town Council believes that this is the only way to ensure that our community is not devastated by a transmission-initiated wildfire event. Accordingly, we urge OEIS to begin this process at the earliest practicable moment.

SCE Commitment to Broad PSPS Community Outreach Isn't Genuine and Rings Hollow. Acton is a rural community in which cellular communication and internet services are not particularly robust, and during SCE PSPS events, communication systems can and do fail[13]. Under such circumstances, the Acton Town Council actively monitors power shutoff events

[13] As the Council has explained in comments to the California Public Utilities Commission, when internet systems fail, residents must obtain information from each other, so community interconnections are critical. This is particularly true given that SCE notifications to customer's cellphones are often inaccurate and untimely.

and councilmembers communicate events and schedules to affected residents via phone to keep them updated. This efforts were made possible because the Acton Town Council was placed on the distribution list for SCE notifications and, since 2020, SCE has sent the Acton Town Council all PSPS notifications[14] for three of the four distribution circuits that are in Acton[15] (though SCE would not provide notifications pertaining to the fourth circuit[16]). However, on or about September 7, 2025, the Acton Town Council was removed from all SCE PSPS Notification distribution lists and since that time, the Council has not received any PSPS notifications; we only know of the PSPS events in Acton that occurred in the Fall of 2025 because residents made inquiries regarding them. The Council has repeatedly asked SCE to add us to the list of entities that receive PSPS notices (our multiple email requests are provided in Attachment 3); these requests were ignored and no response was ever provided. The Acton Town Council mentions these difficulties because they belie the commitments expressed in SCE's WMP that SCE will help stakeholders "stay informed"[17] and conduct broad outreach to communities during PSPS events particularly where (like Acton) "traditional communications might be restricted through a loss of power"[18]. These comments are not expected to make any difference in the approval of SCE's WMP; however, the Acton Town Council feels obligated to inform OEIS that SCE is not as committed to stakeholder outreach during PSPS events as the WMP suggests.

SCE Is Not Reducing PSPS and Even Expects PSPS to Increase In Acton By 40%.

The Council understands that SCE is obligated to continually improve its PSPS program in a manner that reduces the scope and frequency of PSPS events and, by extension, PSPS impacts on communities. It appears from the Decision that OEIS is satisfied that SCE's WMP will reduce the scope and extent of PSPS events[19]. However, information released by

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[14] The notifications that the Acton Town Council has received in the past include the 72-hour warning notice, the 24-hour warning notice, the 1-4 hour imminent shutoff notice, and the shutoff information notice.

[15] These circuits are designated by SCE as Pick, Shovel, and Bootlegger.

[16] SCE has informed the Acton Town Council that the Sand Canyon Circuit is not in Acton. SCE is mistaken. The Sand Canyon circuit because serves all residents in the southwest part of Acton within the Soledad Canyon area. The Acton Town Council has explained this repeatedly to SCE and provided SCE staff with maps showing Acton's boundaries and demonstrating that the Sand Canyon circuit is in Acton. SCE has ignored this information.

[17] Page 213 of SCE's WMP states that SCE's outreach efforts "help customers and stakeholders stay informed and aware of impacts and potential impacts to SCE's electric service".

[18] Page 446 of SCE's "2026-2028 Wildfire Mitigation Plan Revision 2" states that SCE will "Conduct broader PSPS education and outreach to customers, communities, and critical infrastructure/facilities to improve resiliency during PSPS events including those events where traditional communications might be restricted through a loss of power"

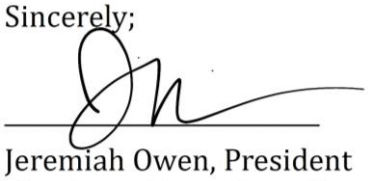
[19] Page 37 of the Decision states that SCE's 2026-2028 Base WMP "may reduce the duration, frequency, and scope for PSPS events."

SCE to the public in the summer of 2025 indicates that SCE expects PSPS events to increase because "new criteria" will be applied to FPI values[20]. And, at a community meeting convened in Acton on August 27, 2025, residents who are already overburdened by SCE PSPS events were informed that PSPS events in Acton could increase by 40% if weather conditions that occurred in 2024 are again repeated. Residents pushed SCE staff to explain what criteria could possibly increase PSPS events by 40% particularly after the extensive circuit "hardening" efforts that have been completed in Acton (at great ratepayer expense). SCE's responses were very vague, and the Acton Town Council notes that the 2026-2028 WMP fails to shed any light on the matter. Worse yet, SCE appears to have convinced OEIS that its 2026-2028 WMP will reduce the scope and frequency of PSPS events when in fact SCE is informing communities that "new" FPI criteria will result in 40% more PSPS activation days and will also double the size of PSPS events[21]. This is particularly troubling given SCE's persistent inability to provide supporting data for the variable FPI thresholds that it has assigned to Acton over the last few years (as described above). The Acton Town Council understands that these comments will not make a difference in the approval of SCE's WMP. However, we feel obligated to notify OEIS that SCE is not intending to reduce the scope and scale of PSPS events (at least not in Acton); to the contrary, new PSPS criteria that SCE has devised will substantially increase PSPS events and impacts in future.

Conclusion.

The Acton Town Council respectfully requests that OEIS factor the comments and concerns presented above into the final decision on SCE's 2026-2028 WMP. We regret not bringing these issues to your attention earlier, but time constraints and resource limitations prevented us from doing so. If you would like to discuss any of the information presented above, or require further clarifications, please do not hesitate to contact us at atc@actontowncouncil.org.

Sincerely;



Jeremiah Owen, President
The Acton Town Council

[20] Page 15 of the SCE presentation found here: https://www.sce.com/sites/default/files/custom-files/PDF_Files/2025%20Wildfire%20Safety%20Community%20Meeting%20Presentation_June%2017.pdf

[21] Id.

ATTACHMENT 1.

COMMENTS SUBMITTED BY THE ACTON TOWN COUNCIL TO THE CALIFORNIA PUBLIC UTILITIES COMMISSION ON SCE PSPS POST EVENT REPORTS.

ACTON TOWN COUNCIL
P.O.Box 810, Acton CA 93510

Leslie Palmer, Director
Safety Enforcement Division
California Public Utilities Commission
505 Van Ness Avenue
San Francisco, CA 94102
Electronic Transmission of 28 pages & 4 attachments to
leslie.palmer@cpuc.ca.gov

March 18, 2025

Subject: Acton Town Council Comments on the January 2, 2025 PSPS Post Event Report Filed by Southern California Edison.

Reference: Letter to Director Palmer from Southern California Edison Dated March 3, 2025 titled "SCE PSPS Post Event Report – January 2, 2025 to January 17, 2025"

Dear Director Palmer;

The Acton Town Council (Council) respectfully submits the following comments on the Post-Event Report addressing the "Public Safety Power Shutoff" (PSPS) events of January 2 - January 17, 2025 that was prepared by Southern California Edison (SCE). These comments are being timely filed within the 15-day deadline established by D.19-05-042; they have also been distributed to those on the Service List for R.18-12-005

PRELIMINARY COMMENTS

For three years (2019, 2020, and 2021), the Council presented the California Public Utilities Commission (Commission) with substantial and uncontroverted evidence that SCE has expressly violated §399.2 and §451 of the California Public Utilities Code (the Code) by failing to provide Acton residents with just, reasonable, safe, and reliable power; nonetheless, the Commission has thus far declined to conduct a "reasonableness review" of any SCE power shutoffs in Acton. Fortunately, excessive rain events between the Fall of 2022 and Spring, 2024 provided the residents of Acton with a temporary reprieve from SCE's oppressive and unnecessary power shutoff events; however, the return of drought conditions to Southern California in the Fall of 2024 also brought a return of inappropriate SCE PSPS activities to Acton. In particular, and as explained

in detail below, SCE initiated power shutoffs throughout the community of Acton between January 2 and 17 without ***any*** justification; in fact, data from SCE's own weather stations prove that conditions did not warrant the power shutoffs that SCE initiated in Acton beginning on January 8. SCE also failed to properly sectionalize circuits and even cut power to residents with 100% underground electrical service from the local substation (which is not susceptible to wildfire ignition). SCE also violated every one of the Commission's PSPS notification requirements during the January 2 PSPS event. Everything about SCE's PSPS events in Acton was inappropriate; SED should find as much and recommend that the Commission initiate a reasonableness review of SCE's PSPS activities between January 2-17.

SCE'S POWER SHUTOFFS IN ACTON WERE INAPPROPRIATE AND UNREASONABLE.

According to SCE's Wildfire Mitigation Plan (WMP) for 2023-2025, power shutoffs are only initiated by SCE when the local "Fire Potential Index" (FPI) is exceeded AND when a wind threshold is exceeded[1]; SCE reiterated these protocols in recent PSPS post-event reports[2]. Accordingly, **when SCE follows its adopted PSPS protocols, power shutoffs are not initiated unless and until the FPI threshold is exceeded *AND* a wind threshold in the vicinity of the circuit is exceeded**. However, throughout the PSPS event initiated on January 2, SCE routinely cut power on circuits in Acton in instances when no wind thresholds were exceeded and even when FPI thresholds were not exceeded. Equally troubling, SCE has not (and perhaps cannot) substantiated any of the FPI values that it used to determine de-energization thresholds and make PSPS decisions[3]. Additionally, SCE failed to implement sectionalization to limit the scope of its PSPS events in January, and thereby violated D.19-05-042. Finally, SCE apparently did not consider de-energizing any transmission lines in Acton even though measured windspeeds on the ridgelines where these transmission facilities are located exceeded the Commission's replacement wind load standards set forth in General Order 95 (GO 95). All of these failures are discussed in detail below.

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[1] Table SCE B-01 on page 714. SCE has established two types of wind thresholds: sustained wind thresholds and wind gust thresholds. If either of these thresholds are exceeded AND if the FPI threshold is exceeded, SCE would initiate a power shutoff.

[2] For example, in the PSPS Post Event Report prepared for the November 4, 2024 de-energization event, SCE explains that a circuit is de-energized "when either sustained wind de-energization threshold or gust wind de-energization threshold is met, *in tandem with the circuit's FPI threshold"* (emphasis added). Page 6 at FN 9.

[3] Since January 8, 2025, the Council has asked SCE to provide the inputs to its FPI calculated thresholds and de-energization decision; thus far, SCE has refused.

SCE Shutoff Power in Acton When No Wind Thresholds were Exceeded

During the PSPS event that SCE initiated on January 2, SCE cut power on every circuit in Acton even though measured wind levels in the vicinity of these circuits did not approach or exceed SCE's established "De-Energization Thresholds"; these power shutoffs lasted for days, they were entirely unjustified, and they were therefore intrinsically not "reasonable" as that term is defined by §451 the Code. To support this contention, the Council offers the following detailed analysis of SCE's PSPS activities involving each circuit in Acton.

The Bootlegger Circuit The Council has carefully mapped the location of all SCE weather stations in the portion of Acton served by the Bootlegger distribution circuit; this map is provided in Figure 1. Note: some of the weather stations identified on this map are on transmission facilities located on ridgelines and are not on distribution facilities; these transmission facility weather stations are indicated with a different color. This map enabled the Council to identify all SCE weather stations that monitor conditions on the Bootlegger distribution circuit and download weather data from these stations for the duration of power shutoffs during the PSPS event that began on January 2. This weather data was then reconciled with SCE's power shutoff notices to precisely ascertain the weather conditions on each segment of the Bootlegger circuit before and after it was shutoff. The results of this analysis are summarized in Table 1 which shows that the Bootlegger distribution circuit did not experience wind conditions that met or exceeded SCE de-energization thresholds either during the 12 hour period *before* power was shutoff or during the 12 hour period *after* power shutoff. Accordingly, *none* of the power shutoffs that SCE initiated on the Bootlegger circuit during the January 2 PSPS event were warranted and *none* of them complied with SCE's own PSPS protocols which expressly limit power shutoffs to only circumstances in which the FPI threshold is exceeded AND a wind threshold is exceeded.

Prior PSPS Post Event Reports indicate that SCE has frequently and unreasonably shut off power to residents on the Bootlegger circuit based on inapplicable weather data. For example, according to the Post Event Report that SCE prepared for the December 9, 2024 PSPS event, SCE cut power to residents on the north end of Bootlegger Segment 5 based on a claimed wind gust reading of 59.04 mph; however, none of the distribution circuit weather stations ever registered such a wind gust. In fact, the only weather station that registered a 59.04 mph wind gust was on a transmission tower on a ridgeline (specifically, Weather Station No. 555SE) which is located on the top of a 500 kV transmission tower on a high ridgeline and several miles from where Acton residents

Figure 1. Bootlegger Circuit Map Showing Locations of Distribution Weather Stations.

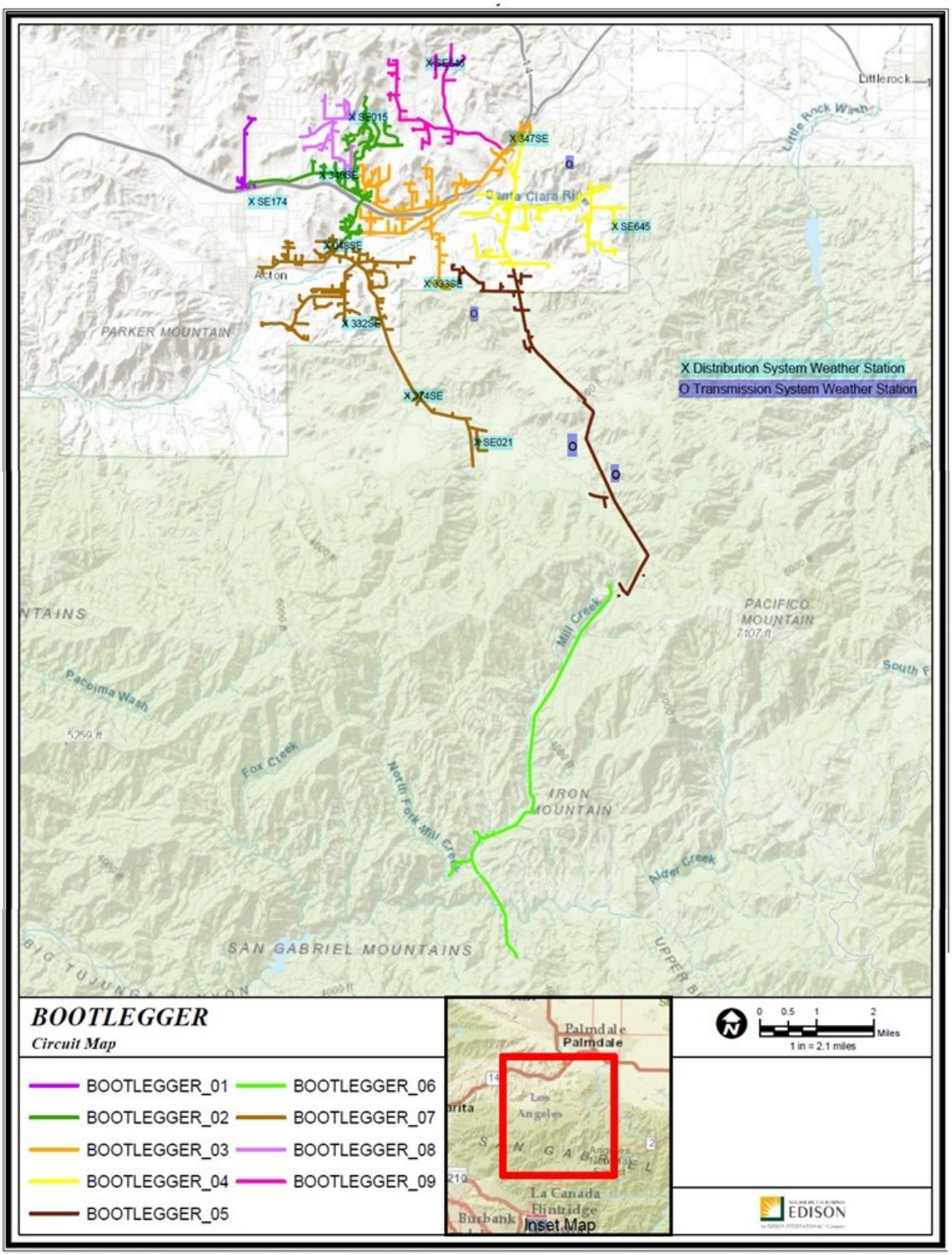

Table 1. Wind Measurements from the Bootlegger Circuit Weather Stations.

BOOTLEGGER CIRCUIT					Condition when SCE Notice was Issued		Peak Conditions within 12 Hours Before Shutoff		Peak Conditions within 12 Hours After Shutoff	
Segment	Shutoff notice		Weather Station ID		Windspeed mph	Wind gust mph	Windspeed mph	Wind gust mph	Windspeed mph	Wind gust mph
1	None		SE174		N/A	N/A	N/A	N/A	N/A	N/A
2	January 8	0124 AM	349SE		12.8	18.3	21.3	22.9	26.5	42.4
			048SE		14.4	21.8	24.4	40.5	27.8	49.1
	January 9	2211 PM	349SE		32.9	42.4	30.2	52.8	31.9	48.0
			048SE		26.0	43.7	26.8	44.8	28.1	45.2
3	January 8	0124 AM	333SE		10.8	23.4	17.0	32.0	20.3	36.9
			347SE		15.1	21.8	28.7	39.7	32.3	44.9
	January 8	1455 PM	333SE		15.6	29.0	20.3	36.9	16.3	31.4
			347SE		28.9	37.9	32.3	44.9	29.5	41.5
4	January 8	0124 AM	SE645		5.7	18.3	15.6	35.8	12.9	31.4
			347SE		15.1	21.8	28.7	39.7	32.3	44.9
	January 11	1120 AM	SE645		8.1	21.5	10.3	25.5	10.8	29.6
			347SE		25.2	32.9	24.3	32.6	26.7	37.4
5	January 8	0124 AM	SE645		5.7	18.3	15.6	35.8	12.9	31.4
	January 11	1044 AM	SE645		8.9	25.3	10.3	19.3	10.8	27.7
	January 13	0332 AM	SE645		7.0	19.0	8.8	24.6	9.4	29.2
6	NOT RELEVANT - THIS SEGMENT IS NOT IN ACTON OR AGUA DULCE									
7	January 8	0124 AM	048SE		14.4	21.8	24.4	40.5	27.8	49.1
			374SE		10.3	19.8	19.4	43.1	26.7	46.2
			332SE		10.0	28.7	16.2	40.0	19.2	45.3
			SE021		10.3	23.0	23.9	42.4	24.9	43.8
	January 8	1311 PM	048SE		23.8	41.0	27.8	49.1	25.4	46.7
			374SE		16.8	34.2	26.7	46.2	19.2	36.0
			332SE		14.2	36.1	19.2	45.3	18.5	38.6
			SE021	*	21.4	42.4	24.9	43.8	NI	NI
	January 9	2211 PM	048SE		26.0	43.7	26.8	44.8	28.1	45.2
			374SE		18.4	36.6	19.5	38.4	19.5	42.1
			332SE		21.0	43.8	21.9	44.7	21.3	48.1
			SE021	+	20.3	31.2	21.5	41.6	23.2	47.0
8	January 8	0124 AM	SE015		9.8	15.6	18.7	44.4	21.6	45.1
	January 9	2211 PM	SE015		23.0	41.2	23.7	42.9	29.8	49.2
9	January 8	0124 AM	SE646		3.4	9.0	13.2	30.5	21.2	33.2
	January 8	1455 PM	SE646		8.4	23.0	21.2	33.2	11.4	28.6

No notice from SCE: Dates and times from notes by residents

* Weather station was not recording when power was cut; wind data that is reported for when power was cut is from a reading taken half an hour earlier. Also, there is no data between January 8 1250 PM and January 9, 0210 AM

\+ There is no data between January 10 0040 AM and January 9, 0210 AM and 1040 AM

were de-energized[4]. This is completely unreasonable; SCE should *never* shutoff power to residents based on irrelevant wind measurements which reflect conditions at the top of a transmission tower located on a high ridgeline and miles from where residents are de-energized.

The Council suspects that SCE frequently relies on transmission facility weather data to de-energize distribution circuits in Acton; however, this is difficult to confirm because SCE's PSPS Post Event Reports are vague and utterly lacking in granularity. In prior Post Event Reports, SCE would identify the weather station that provided the data upon which SCE de-energized specific segments of circuits (see for example the Post Event Report SCE filed for the January 12-21, 2021 PSPS event [5]); this made it possible for customers to understand where high winds were measured and why their power was cut. However, it also made it easier for customers to recognize when they were de-energized inappropriately based on wind data that did not apply to their area. Perhaps that is why SCE curtailed the practice of identifying the weather stations in its Post Event Reports and now provides *no* information regarding its power shutoff decisions other than a claimed windspeed/wind gust and a claimed FPI value. In fact, SCE does not even bother to report on each of its de-energization decisions and instead merely reports the date and time when it first de-energizes any portion of a circuit and the date and time when it finally re-energizes the last portion of any circuit. For instance, SCE's PSPS Post Event Report states Bootlegger was de-energized on January 8 at 1:13 AM and re-energized January 16 at 10:17 AM[6]; however, this is an inaccurate summary because many segments on the Bootlegger circuit were shutoff and re-energized at different times and even multiple times. Yet, ***none*** of these power shutoff decisions are addressed anywhere in SCE's Post Event Report.

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[4] According to Section 2 on page 79 of SCE's PSPS Post Event Report Dated December 30, 2024, SCE cut power on the Bootlegger circuit based on a claim that the circuit experienced a 59.04 mph wind gust on December 9. However, a review of the data collected by the distribution weather stations identified in Figure 1 do not indicate any wind gust measurements exceeding 55 mph. However, data collected by the Transmission Weather Station No. 555SE located on top of a 500 kV transmission tower on a ridgeline in the Angeles Forest does indicate that a 59 mph gust hit the transmission tower on December 9. Therefore, the Council assumes that this transmission tower measurement was used to justify power shutoffs to Acton residents located many miles away.

[5] Attachment A pages 7-12. [https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/safety-and-enforcement-division/reports/psps-post-event-reports/2021/jan-1221-2021-sce-psps-post-event-report.pdf].

[6] See Table 5 of the "PSPS Event Data Workbook".

The paltry and arguably erroneous information provided in SCE's Post Event Reports make it very difficult to assess the legitimacy of the "high wind" claims that SCE uses to justify its power shutoffs; the only way to know for certain whether a "high wind" claim is legitimate is by "deconstructing" a PSPS event for a particular area. To "deconstruct" a PSPS event, one must first download all the weather data from all of SCE's weather stations in the area, then find the single wind measurement that SCE claims was the trigger for a power shutoff, then reconcile the location of the weather station that recorded the single wind measurement with the location of the de-energized customers. Of course, none of this would be necessary if SCE's PSPS Post Event Reports would just identify the weather station where the "high winds" were recorded and when they were recorded. This is perhaps one of the most significant deficiencies in the PSPS Guidelines; by allowing utilities to produce Post Event Reports that omit critical information pertaining to their PSPS decisions, the Guidelines ensure that the public is unlikely to challenge any power shutoff decision because the data that is needed to bring such a challenge is very difficult and time consuming to derive.

Nonetheless, the Council put in the effort required to challenge SCE's power shutoff decisions during the January 2 PSPS event, and we found that the decision to de-energize residents on the Bootlegger circuit was entirely unwarranted. In fact, Table 1 clearly demonstrates that no power shutoffs were warranted on any segments of the Bootlegger circuit because all peak wind measurements collected by all Bootlegger distribution weather stations were below the 38 mph sustained windspeed threshold and the 55 mph wind gust threshold in the 12 hour periods before and after every de-energization. SCE also prolonged the PSPS event on the Bootlegger circuit far beyond what it should have been; this caused considerable hardship on Acton residents who were left without power for days longer than what was warranted. In fact, SCE's January 2, 2025 PSPS Post Event Report states that SCE did not even issue an "All Clear" declaration for the Bootlegger circuit until January 16[7] *even though wind speeds and wind gusts on the circuit had dropped significantly a week before then*. (as weather data from SCE's own weather stations prove. The privations created by SCE's unwarranted power shutoffs are much harder on the rural residents served by the Bootlegger circuit than in other areas because most Bootlegger customers rely on individual residential wells, and when power is cut, these residents have no water, they have no functioning toilets, and they have no functioning faucets. There were ***no*** circumstances to justify SCE's callous and unreasonable decision to extend the PSPS event days beyond what it should have been.

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[7] See Table 5 of the SCE PSPS Event Data Workbook.

The Shovel Circuit: The Council carefully mapped the location of SCE weather stations in the portion of Acton served by the Bootlegger distribution circuit. This map (provided in Figure 2) enabled the Council to identify all SCE weather stations that monitor conditions on the Shovel circuit and download weather data from these stations for the duration of the January 2 PSPS event. This weather data was then reconciled with SCE's power shutoff notices to precisely ascertain the weather conditions on each section of the Shovel circuit before and after it was shutoff. The results of this analysis are summarized in Table 2 which shows that the Shovel circuit never experienced any wind conditions which met or exceeded SCE de-energization thresholds either during the 12 hour period *before* power was shutoff or during the 12 hour period *after* the power shutoff. Accordingly, *none* of the power shutoffs that SCE initiated on any segments of the Shovel circuit during the January 2 PSPS event were warranted and *none* of them complied with SCE's own PSPS protocols which expressly limit power shutoffs to only circumstances in which the FPI threshold is exceeded AND a specific wind threshold is exceeded.

The Council is particularly frustrated by these results because we warned SCE repeatedly throughout the month of January that weather conditions did not warrant any power shutoffs on the Shovel circuit. For example, we informed SCE on January 7 that it was raining in Acton and humidity levels were quite high; yet, SCE issued a warning that day anyway stating that, within 4 hours, power could be shutoff on the entire Shovel Circuit. Equally disturbing, SCE appears to be fully cognizant of the fact that it habitually cuts power on the Shovel Circuit when circumstances do not warrant it; yet, SCE does nothing to curb its own unreasonable behavior. For example, SCE's Report for the December 9, 2024 PSPS Event states sustained winds did not exceed 35.05 mph and wind gusts did not exceed 45.59 mph; yet, SCE shutoff the Shovel circuit on December 10 and it stayed off for nearly 30 hours[8]. The November 4 PSPS Event report states the Shovel circuit was shutoff on November 6 even though sustained winds and wind gusts did not exceed 32.85 mph and 53.34 mph, respectively [9].

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[8] Sections 02 and 03 of "SCE Post-Event Report Data" found on the 79th to the 83rd document page of *Southern California Edison Company's (U 338-E) Public Safety Power Shutoff Post-Event Report For December 9, 2024 De-Energization Event* [https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/safety-and-enforcement-division/reports/psps-post-event-reports/2024/r1812005-sce-psps-post-event-for-december-9-2024-de-energization.pdf].

[9] Sections 02 and 03 of "SCE Post-Event Report Data" found on the 79th to the 93rd document page of *Southern California Edison Company's (U 338-E) Public Safety Power Shutoff Post-Event Report For November 4, 2024 De-Energization Event* [https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/safety-and-enforcement-division/reports/psps-post-event-reports/2024/r1812005sce-psps-postevent-for-november-4-2024-deenergization.pdf].

Figure 2. Shovel Circuit Map Showing Locations of Distribution Weather Stations.

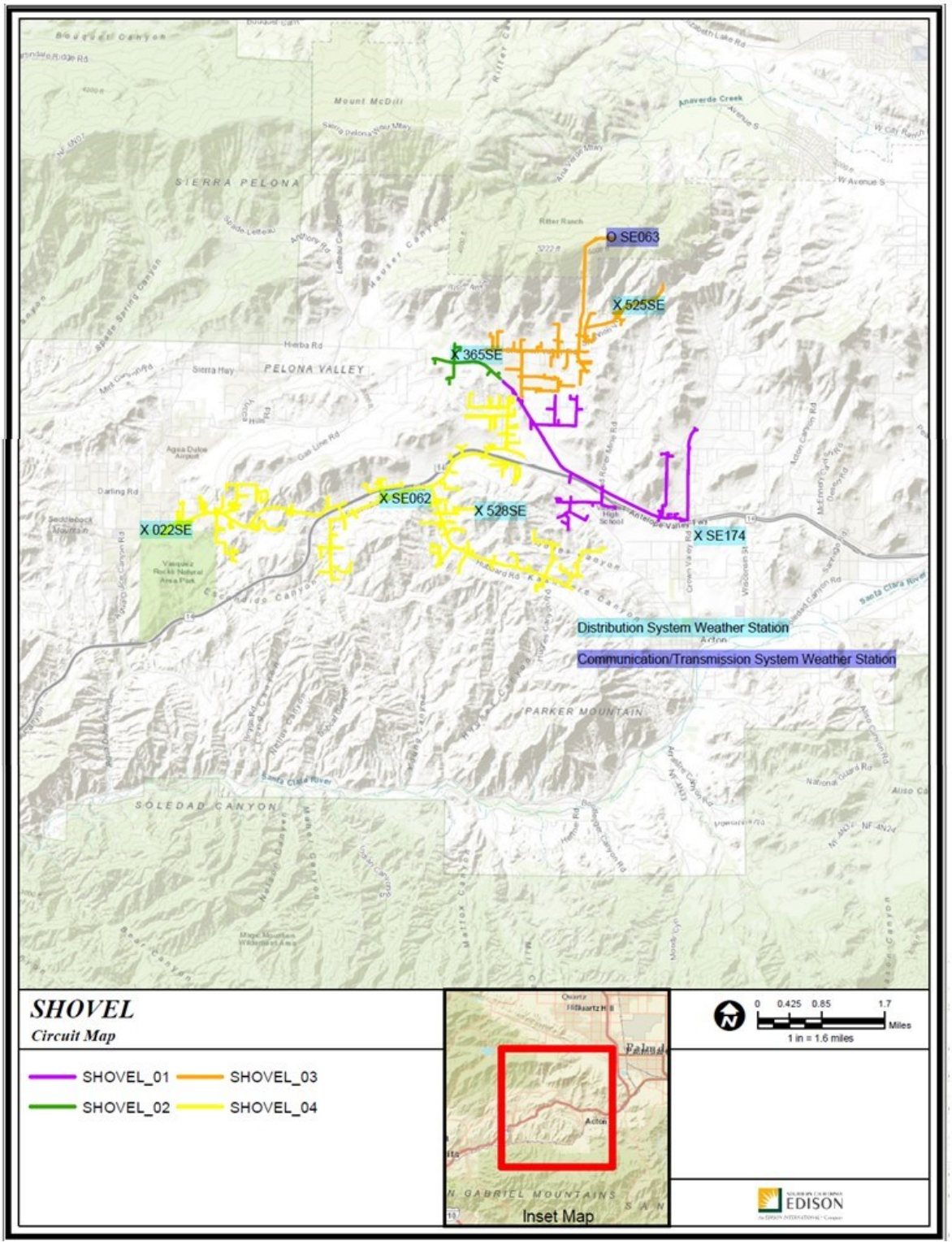

Table 2. Wind Measurements from the Shovel Circuit Weather Stations.

SHOVEL CIRCUIT			Condition when SCE Notice was Issued		Peak Conditions within 12 Hours Before Shutoff		Peak Conditions within 12 Hours After Shutoff	
		Weather	Windspeed	Wind gust	Windspeed	Wind gust	Windspeed	Wind gust
Segment	Shutoff notice	Station ID	mph	mph	mph	mph	mph	mph
1	January 8 1227	SE174	26.4	39.3	29.2	43.1	29.6	43.5
2	January 8 1227	365SE	28.7	40.1	28.8	46.1	28.4	42.4
3	January 8 1227	525SE	12.87	28.04	15.6	38.4	18.1	33.6
		SE063	19.8	32.7	26.2	35.9	26.4	39.7
4	January 8 1227	528SE	12.0	32.3	22.4	44.3	18.6	38.0
		SE062	17.2	34.2	20.0	39.4	18.5	34.0
		022SE	16.5	26.8	21.4	36.8	16.3	11.4
Notes:	Segment 1 should never have been cut because Segment 1 on Bootlegger was never cut; both rely on Station SE174							
	Shannon Valley should have a dedicated weatherstation that is segmented from Houser Peak							
	Station 022E is on the Davenport Distribution Circuit immediately adjacent to the west end of Shovel Segment 4.							

The Pick Circuit The Council carefully mapped the location of SCE weather stations in the portion of Acton served by the Pick distribution circuit. This map (provided in Figure 3) enabled the Council to identify all SCE weather stations that monitor conditions on the Pick circuit and download weather data from these stations for the duration of the January 2 PSPS event. This weather data was then reconciled with SCE's power shutoff notices to precisely ascertain the weather conditions on each section of the Pick circuit before and after it was shutoff. The results of this analysis are summarized in Table 3 which shows that the Pick circuit never experienced any wind conditions which met or exceeded SCE de-energization thresholds either during the 12 hour period *before* power was shutoff or during the 12 hour period *after* the power shutoff. Accordingly, *none* of the power shutoffs that SCE initiated on the Pick circuit during the January 2 PSPS event were warranted and *none* of them complied with SCE's own PSPS protocols which expressly limit power shutoffs to only circumstances in which the FPI threshold is exceeded AND a specific wind threshold is exceeded.

The Sand Canyon Circuit. Unfortunately, the Council was unable to conduct an analysis of the wind conditions during SCE's power shutoffs on the portion of the Sand Canyon Circuit in Acton because SCE never sent the Council any notices regarding this circuit (though we have repeatedly informed SCE since 2022 that the Sand Canyon Circuit serves Acton). More than a month ago, the Council requested SCE to send us information regarding its shutoff events on the Sand Canyon Circuit; SCE refused[10].

[10] The Council even submitted a discovery request to SCE seeking this information on February 19, 2025; it was ignored.

Figure 3. Pick Circuit Map Showing Locations of Distribution Weather Stations.

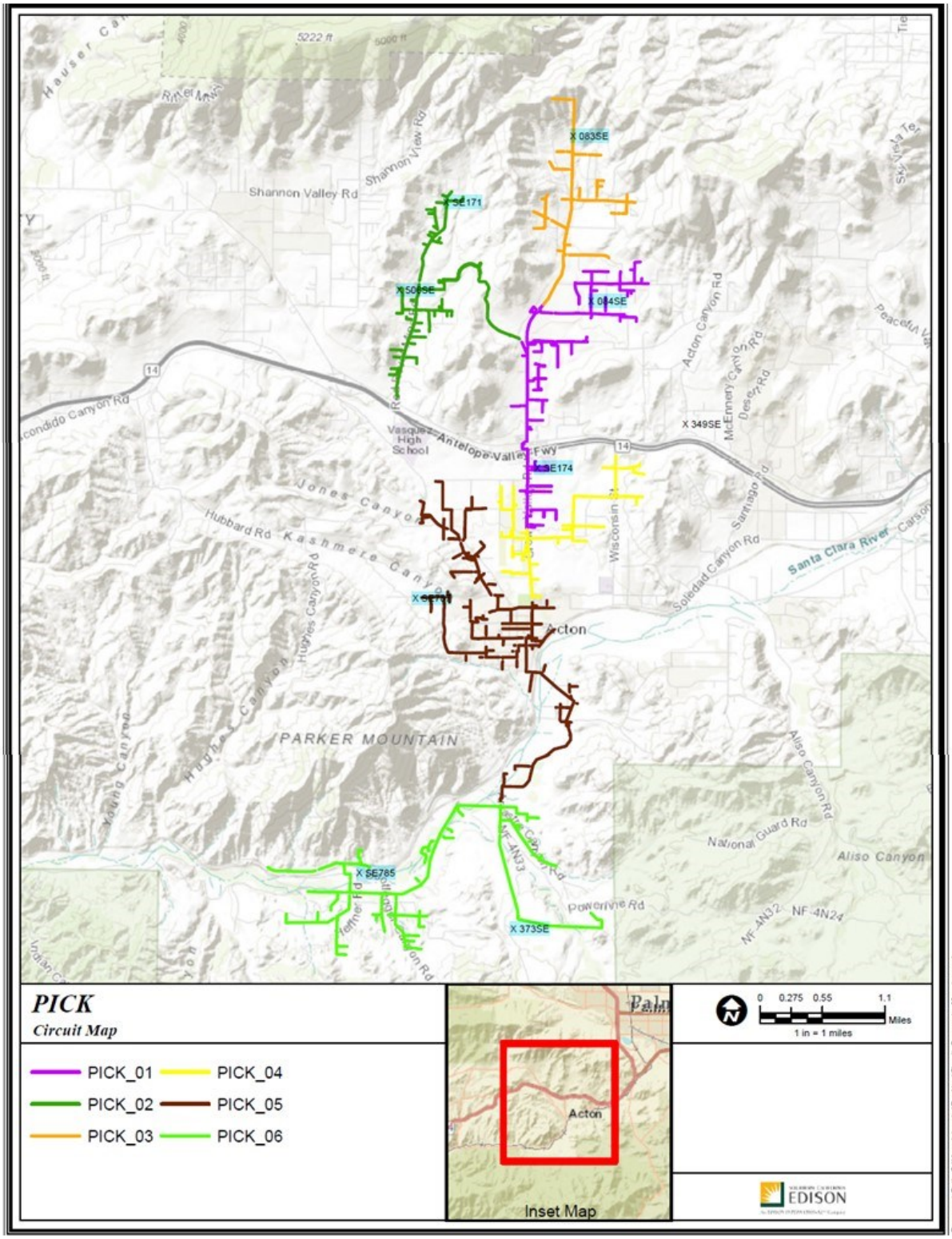

Table 3. Wind Measurements from the Pick Circuit Weather Stations.

PICK CIRCUIT				Condition when SCE Notice was Issued		Peak Conditions within 12 Hours Before Shutoff		Peak Conditions within 12 Hours After Shutoff	
			Weather	Windspeed	Wind gust	Windspeed	Wind gust	Windspeed	Wind gust
Segment	Shutoff notice		Station ID	mph	mph	mph	mph	mph	mph
1	January 8	1412	SE174	27.2	40.5	29.6	43.5	25.4	42.0
			084SE	26.4	39.7	27.1	45.7	26.4	43.0
2	January 8	1227	SE171	17.6	31.3	19.6	39.4	20.0	43.1
			506SE	29.5	43.1	34.6	51.3	33.5	49.8
	January 14	303	SE171	17.3	30.2	18.3	37.8	20.8	38.6
			506SE	35.5	47.7	34.8	46.9	32.1	46.9
3	January 8	1412	083SE	15.6	35.6	19.0	41.6	17.7	36.8
4	January 8	1412	SE174	27.2	40.5	29.6	43.5	25.4	42.0
5	January 8	1412	SE174	27.2	40.5	29.6	43.5	25.4	42.0
			SE787	20.8	35.5	29.1	44.0	23.2	36.7
6	January 8	1412	SE785	15.4	34.7	19.8	38.0	16.5	30.4
			373SE	20.0	34.8	27.0	44.3	17.1	32.9

Conclusions Regarding SCE's Wind-Based Power Shutoff Decisions. As the information provided above demonstrates, SCE's power shutoff decisions in Acton were unwarranted because wind data collected 12 hours before and 12 hours after each power shutoff event showed that wind speeds were well below SCE's claimed de-energization thresholds. This fact is even confirmed by the scant information provided in SCE's PSPS Post Event report. Specifically, Table 2 in SCE's "PSPS Event Data Workbook" states that the windspeeds and wind gusts recorded at the time power was first shutoff on the Pick, Shovel, and Bootlegger circuits were all well below SCE's claimed "de-energization thresholds". There is also anecdotal evidence demonstrating that SCE's power shutoff decisions were unwarranted. For example, the Council emailed SCE staff on January 8 shortly after the entire Pick circuit was de-energized and we referenced SCE's own weather data which showed "that humidity is 19%, wind speeds are 26 miles per hour, and peak gusts are only 41 mph; there is no justification for cutting power on the Pick circuit". We also pointed out that SCE had improperly shutoff power to neighborhoods on the Pick circuit that are served with 100% underground electrical utilities from the Acton substation and therefore should never be de-energized. SCE disregarded all of these observations.

SCE Shutoff Power in Acton Without Confirming the FPI was Exceeded

According to SCE's Wildfire Mitigation Plan, the first threshold that SCE reviews when it is considering a power shutoff is the "Fire Potential Index" (FPI) which is a parameter that is calculated for each segment of each distribution circuit from the following numerical information:

- The dryness level.
- Energy Release Component
- 10-hour dead fuel moisture time-lag (from bi-weekly vegetation sampling).
- 100-hour dead fuel moisture time-lag (from bi-weekly vegetation sampling).
- Moisture content value of living vegetation (from bi-weekly vegetation sampling).
- The "degree of greenup" (from bi-weekly vegetation sampling).
- The fuel loading modifier (either 0.5, 0.75, or 1.0).
- The "weather component" which is determined from a "look up" table that considers windspeed and dewpoint depression (which is the difference between the actual temperature and the dewpoint temperature which both data points provided by all of SCE's weather stations).
- The "circuit health".
- The calculated "consequence analysis".

According to SCE's January 2 PSPS Post Event Report and its Wildfire Mitigation Plan, SCE has pre-determined "FPI de-energization thresholds" for each segment of each circuit; for example, the Bootlegger and Sand Canyon Circuits in Acton have been assigned a de-energization threshold of 13, whereas the Shovel and Pick Circuits in Acton have been assigned a de-energization threshold of only 12. SCE utilizes these "FPI de-energization thresholds" by comparing them to actual FPI values that are continuously calculated for each segment of each circuit during a PSPS event; when a "real time" monitored FPI value exceeds the fixed "FPI de-energization thresholds" for that circuit segment, SCE then turns its attention to the winds measured for that circuit. Supposedly, once a circuit segment exceeds an "FPI De-energization Threshold" AND it exceeds a wind threshold, that segment is de-energized.

However, this is not the protocol applied to Acton during the January 2 PSPS event.

For instance, at 1:13 in the morning of January 8, SCE de-energized the Bootlegger circuit. Later that morning, the Council reviewed weather data for the Bootlegger circuit and concluded that it was mathematically impossible for the FPI to have exceeded 13 when power was shutoff because the Relative Humidity was in the mid 30's and the dewpoint depression value was in the mid 20's. This was conveyed in an email to SCE staff sent at 9:46 AM, but the concerns were disregarded. By midday, all circuits in Acton were de-energized, so that evening, the Council sent a follow up email to SCE requesting all the inputs it used to calculate the FPI values that were used to de-energize all circuits in Acton (the email was sent at 8:33 PM). The requested information has never been provided. Nonetheless, our suspicions were confirmed because SCE's

January 2, 2025 PSPS Post Event Report states that the FPIs on the Bootlegger and Sand Canyon circuits were only 11.14 and 11.19, respectively when they were de-energized; this is well below the FPI de-energization threshold of 13. In other words, not only did the Bootlegger circuit not experience any winds that were sufficient to justify a power shutoff; the FPI was nowhere near SCE's pre-established "de-energization threshold" when the Bootlegger circuit was shutoff. It is not clear what protocol SCE uses to make power shutoff decisions in Acton; the only thing that is certain is that SCE does not use the protocols it has described in its PSPS Post Event Report or in its Wildfire Mitigation Plan.

SCE has assigned an "FPI De-energization Threshold" of only 12 for the Pick and Shovel circuits, and SCE's January 2 Post Event Report claims that these thresholds were exceeded; however, the Council is unable to confirm this claim because SCE has refused to provide the requested parametric data needed to do so. This is quite troubling, given that SCE's Post Event Reports are required to address "all factors considered in the decision to shut off power" (Resolution ESRB-8, pp.3-4) and given that the parametric data were explicitly used by SCE to calculate FPI values in real time during the PSPS event and are therefore "factors considered in the decision to shut off power". In fact, these factors form the sole basis for SCE's pre-determined FPI de-energization thresholds AND its calculated FPI values.

Another unreasonable aspect of SCE's PSPS activities in Acton is the inconsistent and inappropriate manner in which SCE assigns "FPI De-energization Thresholds" to Acton; this leads to unnecessary and inappropriate de-energizations. Specifically, SCE has established an FPI threshold of 13 for the east and southwest portions of Acton (served by the Bootlegger and Sand Canyon circuits), but the central portion of Acton (served by the Pick and Shovel circuits) has been assigned an FPI threshold of only 12. This inconsistency is not explained in SCE's PSPS January 2 Post Event Reports; to the contrary, the limited commentary that is provided by the Report shows that an FPI threshold of 12 is not warranted in Central Acton (i.e. the Pick and Shovel circuits). Specifically, SCE's PSPS Post Event Reports state that areas are only assigned an FPI Threshold of 12 if they are either 1) in a "Coastal" Fire Climate Zone; or 2) assigned a Geographic Area Coordination Center (GACC) preparedness level of 4 or 5 due to "resource drawdown concerns"; or 3) in an active "Fire Science Area of Concern" because of egress, fire history, and other factors. The center portion of Acton is not in a "Coastal" Fire Climate Zone so it does not meet criteria 1. It is also served by two dedicated Los Angeles County Fire Stations and equally important, the "resource drawdown" factor in central Acton does not differ from the "resource drawdown" in the east or west portions, so it is not clear how Central Acton could be deemed to have a

different "GACC Preparedness Level" than the east or southwest areas. Finally, the central portion of Acton is traversed by a freeway and four major highways (so egress is not constrained) and CALFIRE records show that central Acton has virtually *no burn history* over the last 80 years[11] ; so, it is not clear how Central Acton would be deemed a "Fire Science Area of Concern". Taken together, these facts indicate that the "FPI De-energization Threshold" of 12 that SCE has assigned to the Pick and Shovel circuits in Central Acton is inconsistent with the explanation provided in SCE's January 2 PSPS Post Event Report regarding why certain areas are assigned a low FPI value. The Council recently asked SCE to provide copies of its GACC maps and its "Fire Science Area of Concern" maps to explore this inconsistency, but this data has not yet been provided.

SCE FAILED TO PROPERLY IMPLEMENT SECTIONALIZATION TO REDUCE THE SCOPE AND EXTENT OF PSPS EVENTS

SCE is required to continually improve its efforts to reduce the scope and extent of PSPS events, and in particular, SCE is directed to implement sectionalization to reduce PSPS impacts[12]. In the 7 years that SCE has conducted PSPS events (specifically, 2019, 2020, 2021, 2022, 2023, 2024, and 2025) it has ***not*** successfully implemented sectionalization in Acton, and as a result, the entire community was needlessly de-energized on multiple occasions in January, 2025. In January and February, we offered to meet with SCE to discuss these problems several times; SCE has not responded. Everything about SCE's PSPS activities in Acton in January, 2025 were unreasonable, including their failure to properly implement sectionalization to reduce PSPS impacts. The following paragraphs articulate precisely how SCE has failed to implement sectionalization in Acton.

SCE has failed to sectionalize an entire neighborhood in Acton that has electrical service which is never affected by weather events because it is 100% underground from the Acton substation. The Council has pointed this out to SCE many times since SCE's first PSPS events in 2019, but SCE has chosen not to sectionalize the area. We have also pointed out this significant deficiency to the Commission many times in our comments that we have filed in response to SCE Post PSPS Event reports and in our submissions in Proceeding I.19-11-013; unfortunately, the Commission ignored these concerns as well. SCE is aware that this neighborhood has full underground service; in fact, SCE recently provided the map depicted in Figure 4 which shows that the neighborhood has only underground service from the Acton Substation.

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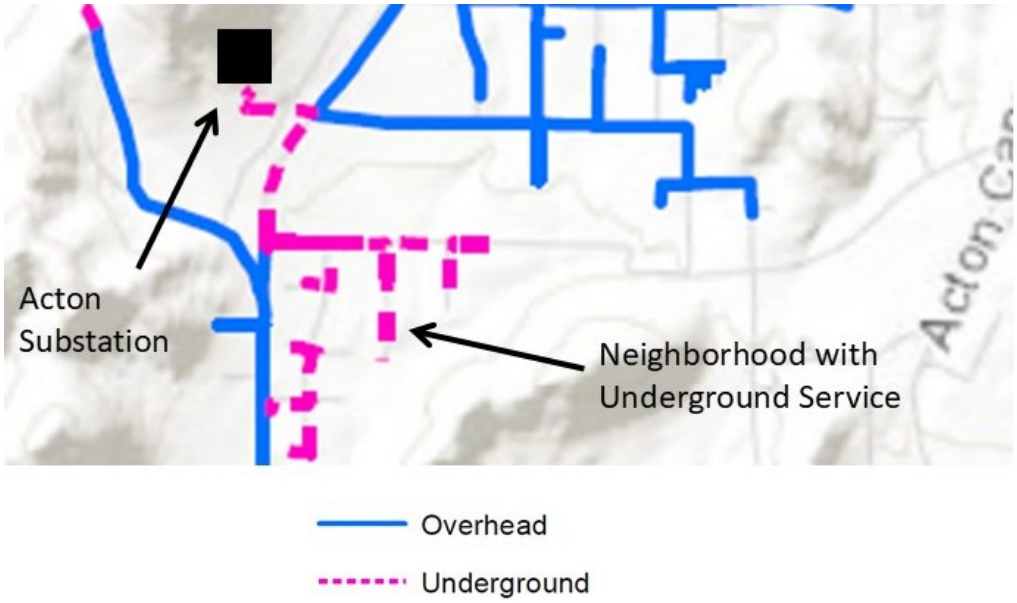
[11] https://www.fire.ca.gov/what-we-do/fire-resource-assessment-program/fire-perimeters

[12] Unofficial Compendium of Public Safety Power Shutoff (PSPS) Guidelines and Rules at 33.

Figure 4. Pick Circuit Section with Full Underground Service from Acton Substation.



SCE has also failed to sectionalize a large residential area in Acton on Segment 5 of the Bootlegger circuit which experiences frequent and lengthy de-energizations based on *transmission system* wind measurements taken on top of 500 kV transmission towers located on high ridgelines miles from the homes where power is shutoff (as explained above). As shown in the map provided in Figure 5, SCE has not segmented a large residential area on the north end of Segment 5; this area has no dedicated distribution system weather stations, so SCE shuts off power to this neighborhood based on wind measurements collected on transmission facilities located on a ridgeline several miles south and deep into the Angeles National Forest. As a result, SCE routinely de-energizes Acton residents based on inapplicable wind data that does not represent *actual* wind conditions on the distribution circuit in the areas that are de-energized. All of this is improper and it violates the Commission's directive to continually reduce the scope and extent of PSPS events by sectionalizing circuits.

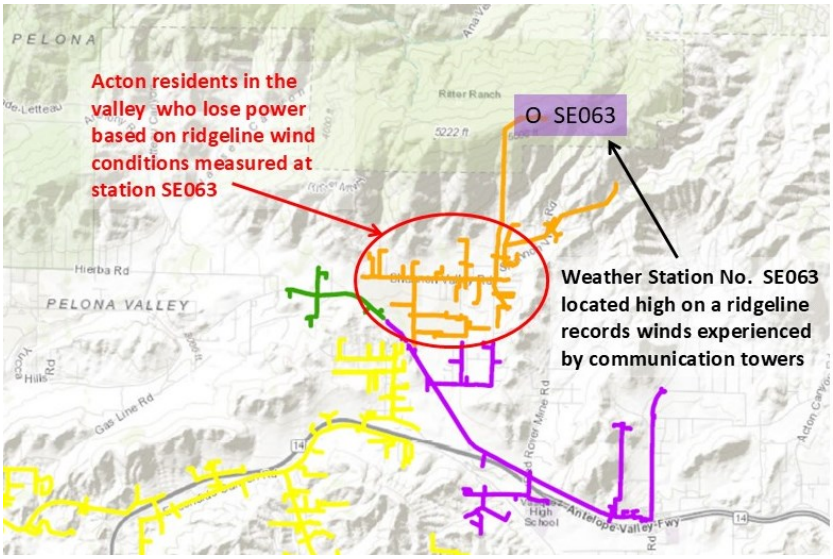
SCE has also failed to sectionalize a large length of the Shovel circuit that only energizes telecommunication equipment located high on a ridgeline (at elevation 5,124 ft[13]) and which experiences relatively high wind speeds because of its ridgeline location. Worse yet, SCE has deployed a weather station on the cell tower facilities located on this ridgeline (station No. SE063) and it appears that SCE uses the weather data collected on

[13] 5,124 ft is the elevation reported for SCE's "Sierra Pelona" weather station (No, SE444). https://viewer.synopticdata.com/map/data/now/air-temperature/SE444/about?layers=#map=12.59/34.55613/-118.26505

Figure 5. Residential Area on the Bootlegger Circuit that has not been Sectionalized and is Routinely De-Energized based on Erroneous Wind Data Collected from Atop Transmission Towers on Ridgelines Located Miles Away.

this ridgeline to de-energize homes located in the valley far below (as shown in Figure 6). SCE should have sectionalized that portion of the Shovel circuit years ago and installed a weather station in the valley to properly measure the actual, local wind conditions that residents experience. Acton residents pointed this out in workshops that SCE hosted in 2020 and 2021; nothing was done. UPDATE: On March 17, 2025, SCE provided the Council with a new map of the Shovel circuit showing that the portion of the Shovel Circuit that serves the ridgeline communication facilities has been sectionalized. That is appreciated. However, the fact remains that this sectionalization was not completed before SCE initiated the January 2, 2025 PSPS event and therefore these concerns regarding SCE's sectionalization failures remain valid.

Figure 6. Residential Area on the Shovel Circuit that has not been Sectionalized and is Routinely De-Energized based on Erroneous Wind Data Collected from Atop Communication Towers located on Ridgelines High Above.



Additionally, SCE should have sectionalized the west side of Pick Circuit Segment 2 that serves Red Rover Mine Road from the east. SCE maintains two weather stations along Red Rover Mine Road (which is a long, shallow, broad, north-south running canyon with many homes): Station No. SE171 is on the north end and Station No. 506SE is located high on the west side of the Canyon near a narrow gap in the hills where (of course) windspeeds are higher (not only because Station No. 506SE is higher up but also because windspeeds increase as they approach and pass through the narrow gap[14]). In other words, the wind speeds measured by weather station No 506SE only represent very localized conditions experienced by just a few residences on the west side of the canyon near the gap and do not reflect wind conditions anywhere else on Pick Segment 2 (see Figure 7). SCE's own weather data prove this to be true: during the wind events in January, 2025, Station No. SE171 on the north end recorded windspeeds that were consistently at least 30% lower than wind speeds recorded by Station No. 506SE. Nonetheless, SCE cuts power *everywhere* along Red Rover Mine Road based on windspeeds measured by Station No. 506SE. This is completely inappropriate.

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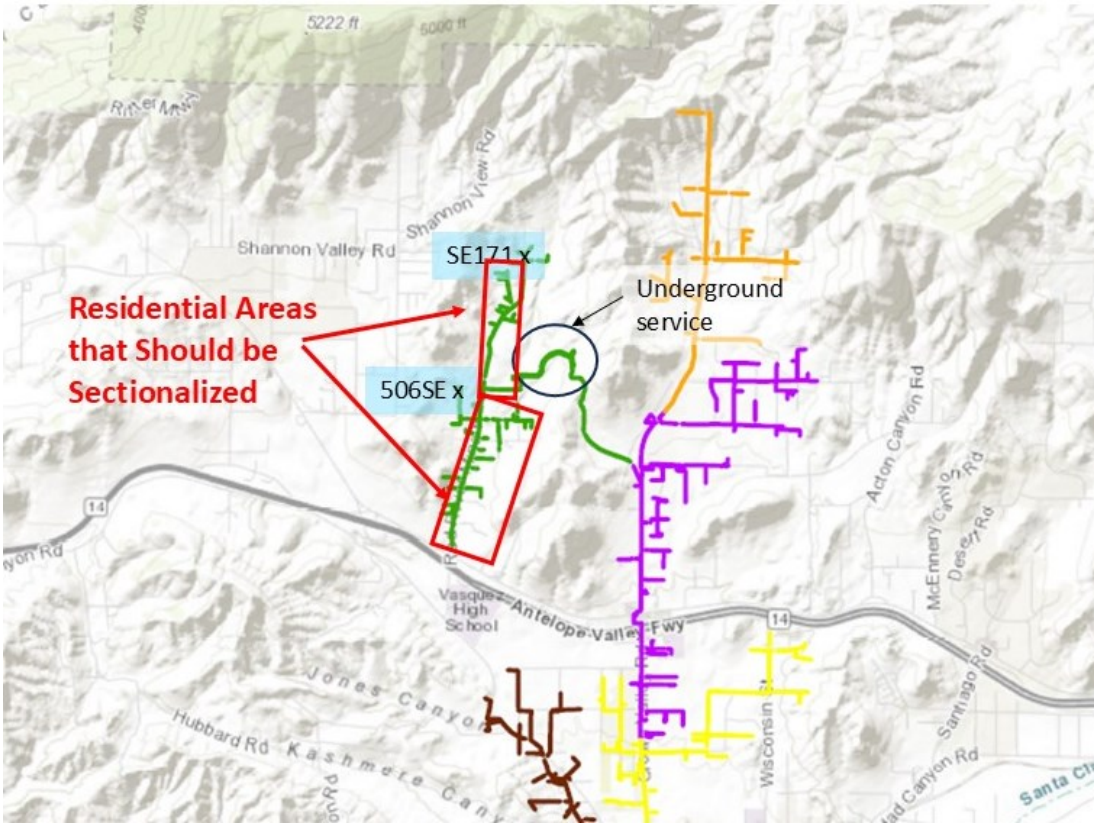
[14] Air flowing over a flat surface at a certain speed tends to maintain that speed until it encounters a barrier with a narrow gap; the barrier "forces" the entire air volume to flow through the narrow gap and as a result, the speed of the air flowing through the gap is much higher than the original speed of the air flowing over the flat surface.

Figure 7. Map of Red Rover Mine Road Neighborhood Depicting Locations of Weather Stations and Showing Residential Areas that Should be Sectionalized.



SCE FAILED TO INITIATE POWER SHUTOFFS ON TRANSMISSION CIRCUITS DURING DANGEROUS WIND CONDITIONS

The Community of Acton is designated as a Very High Fire Hazard Zone (VHFHSZ) by the Office of the State Fire Marshal. Acton is also traversed by 19 high voltage (220 kV and 500 kV) transmission lines; 16 of them are owned by SCE and the remainder are owned by the City of Los Angeles. In addition to forming the southern terminus of the Pacific AC intertie, these transmission lines also serve as one of the primary sources of electric power to urban Los Angeles County. Most of these lines are concentrated in the eastern portion of the community and in fact they are packed in so tightly together that they do not even comply with SCE's transmission standards[15]. Insofar as the Council is aware, the Community of Acton is the only VHFHSZ community in the entire State of California burdened with so many high voltage transmission lines that are so heavily concentrated that they violate accepted design standards.

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15 This fact came to light during Commission hearings on the Tehachapi Renewable Transmission Project (Proceeding A.07-06-031).

A few SCE transmission lines in Acton are approximately 14 years old[16], but many are much, much older than that. On February 19, 2025, the Council submitted a discovery request to SCE that sought specific information regarding these transmission facilities (age, design wind load, etc.); SCE refused to respond. However, aerial imagery reveals that many of these lines existed before 1959. As the Council understands the application of General Order 95 (GO 95), these transmission facilities are designated as either "Class E" or "Class H" supply circuits (depending on voltage - Section 20.6) that must be constructed and maintained as "Grade B" equipment (Section 42). These facilities are all above a 3,000 feet elevation; some are cylindrical towers while others are lattice structures constructed with galvanized steel members. For the cylindrical towers, GO 95 requires a minimum design wind load of 6 pounds per square foot (psf) while the lattice steel towers probably have a minimum design wind load of 10 psf (Section 43.1). Both have a Safety Factor of 1.25 (Table 4); thus, GO 95 requires the cylindrical towers to be constructed to withstand a wind load of 7.5 psf (equivalent to 54 mph[17]) and the lattice towers to be constructed to withstand 12.5 psf (equivalent to 69.9 mph). Additionally, GO 95 imposes design standards for transmission line conductors and hardware fixtures (conductor fastenings, pins, insulators, etc.); because they are typically rounded in shape, their base wind load design requirement is assumed to be 6 psf (Section 43.1) and they have a design safety factor of 2 (Table 4). This suggests that transmission line conductors and hardware fixtures in Acton are constructed to withstand a minimum wind load of 12 psf or 68.5 mph.

However, GO 95 does not require transmission facilities to be replaced until their safety factors are reduced to less than two-thirds of the original safety factors set forth in Table 4 (Section 44.3). In other words, the *working* Safety Factor for the conductors and hardware fixtures on SCE's transmission facilities in Acton is only 1.33[18], and SCE is not required to replace such equipment until the Safety Factor drops below this value. Applying this 1.33 working Safety Factor to the 6 psf design standard yields an actual replacement wind load standard of 8 psf[19] (or 56 mph) for transmission fixtures[20].

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16 Four of the lines were constructed as part of the Tehachapi Renewables Transmission Project (Segments 2, 5, 6, and 11).

17 The conversion from psf to mph is an exponential function: $mph=(psf/.00256)^{1/2}$

18 2 x 2/3 = 1.333

19 Safety Factor of 1.33 x 6 psf = 7.98 psf

20 Presumably, the *working* Safety Factor for transmission towers and cross arms is similarly derived by applying the 2/3 reduction to the 1.25 Safety Factor; however, this yields a *working* Safety Factor of only 0.83. This implies that transmission towers/cross arms need not be replaced until they are incapable of withstanding a 4.98 psf wind load (or 44.1 mph) for cylindrical facilities and 8.3 psf (or 56.9 mph) for lattice structures. This seems unbelievably low; therefore, tower strength and wind load requirements will not be explored any further here.

The wind event that prompted SCE's January 2 PSPS activities was of great concern to the Council because winds were predicted to be greater than 70 mph (and therefore exceed all GO 95 design standards for transmission facilities in Acton). After all, the concentrated placement of so many transmission lines on the east side of the community ensures that any wildfire they spark during "Red Flag" conditions would quickly sweep west and engulf the entire community. Given these risks, and the sheer magnitude of the winds that were projected to occur, the Council assumed that some consideration would be given to the de-energization of the transmission lines in Acton during the January 2 PSPS event. However, SCE's Post Event Report makes no mention of any arrangements to de-energize these transmission lines before the PSPS event (such as communicating with CAISO as required by the PSPS Guidelines[21]). In fact, the Report omits any discussion of transmission line de-energizations other than a footnote which the states 220 kV facilities in Eaton Canyon which were de-energized because of a wildfire and the PSPS event.

To assess whether the Acton transmission lines should have been within the scope of the January 2 PSPS event, the Council undertook an analysis of the weather conditions on the transmission circuits in Acton. Wind measurements recorded by SCE weather stations on transmission facilities and at the Hauser Mountain communication site located just south of four SCE 500 kV transmission lines are summarized in Table 4. The first set of columns list the peak wind measurements recorded at each transmission weather station in the 12 hours before SCE initiated power shutoffs on all distribution circuits in Acton[22] and the second set of columns report peak winds measured throughout the wind event from January 7 at noon to January 14 at noon. These results demonstrate that several

Table 4. Wind Measurements from Weather Stations on SCE Transmission Facilities.

		Peak Conditions in 12 Hours Before Power Shutoffs[a]						Peak Conditions Throughout Power Shutoffs[b]					
		Windspeed			Wind gust			Windspeed			Wind gust		
Weather Station ID		mph	Date	Time	mph	Date	Time	mph	Date	Time	mph	Date	Time
822SE	Arrastre Ridgeline	17.3	January 8	0020	34.8	January 8	1300	17.6	January 10	0420	34.8	January 8	0000
804SE	Julian's Ridge	42.8	January 7	1200	61.5	January 7	1200	46.4	January 10	2200	61.5	January 7	1200
764SE	Kentucky Springs ridgeline	37.1	January 8	1250	48.3	January 8	1210	37.1	January 8	1250	50.7	January 9	2240
756SE	Rough Road ridgeline	38.9	January 8	1150	51.2	January 8	1140	44.4	January 9	2200	60.2	January 9	2140
547SE	West Side AFH "Wolfie"	24.8	January 8	1220	46.7	January 8	1220	24.8	January 8	1220	48.9	January 9	0740
555SE	East Side AFH "N3"	26.6	January 7	1420	67.8	January 8	1230	49.3	January 10	0550	67.8	January 8	1230
[a]	The time frame is January 7 at 1200 PM to January 8 at 1 PM												
[a]	The time frame is January 7 at 1200 PM to January 14 at 1200 PM												

[21] Unofficial Compendium of Public Safety Power Shutoff (PSPS) Guidelines and Rules at 30.

[22] On January 8, the first circuit to be de-energized was Sand Canyon at 0:56 AM; less than 12 hours later, the last circuit to be de-energized was Pick at 12:11 PM.

transmission weather stations registered wind gusts that exceeded 60 mph and were therefore considerably higher than 56 mph (8 psf) replacement standard imposed by GO 95 for transmission hardware fixtures (conductor fastenings, pins, insulators, etc.) One transmission line location (weather station 555SE) recorded a wind gust of nearly 68 mph (or 11.8 psf) which very nearly exceeded the 12 psf *construction* standard imposed by GO 95 for transmission hardware and fixtures! Additionally, the peak wind measurements reported in Table 4 were not singular events; to the contrary, SCE's transmission weather stations show that winds exceeding 55 mph frequently occurred during the PSPS event. This fact alone should have prompted SCE to at least consider de-energizing the transmission lines in Acton; however, it appears that SCE did not do so.

The Council's concerns regarding the wildfire risk posed by SCE's transmission facilities are not unfounded particularly in regard to the oldest transmission facilities (some of which we believe are approaching 70 years of age). We are fully cognizant of the circumstances surrounding the Saddle Ridge fire in 2019 in which a 220 kV transmission line that was constructed in 1970 (and is thus younger than transmission facilities in Acton) ignited a wildfire during "Red Flag" conditions. According to the Commission's Incident Investigation Report (provided in Attachment 1), the transmission towers were constructed in accordance with the applicable GO 95 wind load standard, but they were located in an area known to have wind loads that exceeded this standard (page 3). The Incident Report also noted that what triggered the wildfire was the failure of a fitting that held an insulator string in place; the fitting showed significant corrosion and fatigue (page 4 and figure 5). According to SCE, the expected service life of the fitting was 100 years (page 4) but it obviously did not even make it to 50 years. For reasons that are not clear, the Commission's Incident Report does not consider or report wind speeds; it merely states "there is no evidence to suggest that loading conditions were abnormal or in any way greater than the maximum working load multiplied by the applicable safety factor" (page 8). However, the "Fire Investigation Report" prepared by the City of Los Angeles Fire Department (LAFD) indicates that there the Saddleridge Fire broke out during Red Flag conditions with winds in excess of 60 mph (See Attachment 2 at page 26). The Saddleridge fire killed one person, injured 8, and threated 23,000 homes, and according to the combined information from the LAFD and Commission reports, it was the result of a failed transmission fixture on a 50 year old transmission tower *that did not even make it half way through its expected service life* because it apparently failed when it encountered 60+ mph winds. The circumstances surrounding the transmission facilities in Acton during the January are equally worrisome: Acton's transmission facilities are much

older, they experienced wind conditions that exceeded Commission equipment replacement wind load standards, there are a lot more of them, and they are all packed together in the east side of the community where they will do the most damage if a wildfire is ignited. Yet, apparently SCE never even considered de-energizing them. All of this is intrinsically unreasonable.

The Council is also cognizant of the evidence that is mounting which indicates that SCE transmission facilities were involved in the Eaton Fire that broke out at 6:15 PM on January 7. The Council has reviewed wind data from weather stations in the vicinity of Eaton Canyon, and notes that a weather station located less than half a mile northeast of SCE's transmission facilities (Station No. HNGC1 [23]) registered a wind gust of 68 mph at 5:58 (just 17 minutes before the Eaton Fire ignited). Additionally, in the four hours preceding the ignition, that same weather station recorded wind gusts ranging from 65 mph to 70 mph. These circumstances further support the Council's contention that SCE should have at least considered de-energizing the transmission lines in Acton during the PSPS events in January.

The Council understands that SCE is reluctant to de-energize transmission lines because doing so may create "significant customer impacts and reliability issues"[24] (though ironically, SCE does not hesitate to create significant customer impacts and electrical reliability issues in Acton because it shuts off power in Acton for days when there is little wind). However, the potential short term "customer impacts and reliability issues" resulting from transmission de-energization ***do not*** merit more consideration than the safety of Acton and they certainly ***do not*** outweigh the lives of Acton residents. Accordingly, a full review of SCE's decisionmaking process in relation to transmission facilities is warranted.

DAMAGE REPORTED TO DISTRIBUTION LINES INDICATE THAT SCE EQUIPMENT WAS NOT MAINTAINED IN ACCORDANCE WITH GO 95.

As explained above, GO-95 imposes specific structural standards for electrical equipment and, among other things, it requires utilities to maintain their equipment in compliance with these standards. The Council understands that GO-95 requires the 12 kV distribution poles located at elevations above 3,000 feet in Acton to be constructed to withstand a wind load of 6 psf (Section 43.1) with a safety factor of 3 (Table 4); this corresponds to a design wind load of 18 psf (which is equivalent to 83 mph). GO 95 also

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[23] Station No. HNGC1 is the weather station name assigned by the Synoptics weather data platform [https://synopticdata.com/data-viewer/]

[24] *Quantitative And Qualitative Factors For PSPS Decision-Making* included in SCE's January 3 PSPS Post Event Report (at 7).

requires the associated conductors, insulators, wires, and pole hardware to be constructed to withstand wind load of 6 psf (Section 43.1) with a safety factor of 2 (Table 4); this corresponds to a design load of 12 psf (which is equivalent to 68.5 mph). However, GO 95 only directs utilities to replace their distribution facilities when their safety factors have been reduced to less than two-thirds of the original safety factor (Section 44.3); the Council understands that this means replacement is required when poles cannot withstand a wind load of 12 psf (or 68.5 mph) and when associated conductors, insulators, wires, and pole hardware cannot withstand a wind load of 8 psf (or 56 mph).

In the January 4 PSPS Post Event Report, SCE reports that two structures on the Shovel distribution circuit sustained damage (Structure Nos 4215886E and 676762E)[25]. Structure No. 4215886E is located at the end of Ranchitos Drive in Acton[26] in very close proximity to SCE Weather Station No. 528SE (in fact, it appears from the Synoptic data Map that SCE Weather Station No. 528SE may actually be on Structure No4215886E[27]). Throughout the January 4 PSPS event, sustained windspeeds recorded by SCE Weather Station No. 528SE never exceeded 33.8 mph and wind gusts never exceeded 52.3 mph. Yet, Structure No. 4215886E sustained damage at these windspeeds. Accordingly, it does not appear as though SCE has maintained Structure No. 4215886E's in compliance with GO 95.

Structure No. 676762E is located on Escondido Canyon Road approximately 3,000 feet east of SCE Weather Station No. SE062[28]. Throughout the January 4 PSPS event, sustained windspeeds recorded by SCE Weather Station No. SE062 never exceeded 26.9 mph and wind gusts never exceeded 42.4 mph. Yet, Structure No. 676762E sustained damage at these windspeeds. This also indicates that SCE has not maintained Structure No. 676762E in accordance with GO 95 requirements.

SCE'S NOTIFICATION FAILURES

SCE's January 2 PSPS Post Event Report acknowledges that there were significant and extensive notification failures; this was as true for Acton as for other communities in SCE's service territory. SCE attributes these notification failures to "the widespread and

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25 Table 6 of SCE PSPS Event Data Workbook.

26 According to SCE's distribution equipment database, Structure No. 4215886E is located at Lat 34.493982 Lon -118.248332 .

27 https://viewer.synopticdata.com/map/data/now/air-temperature/528SE/about?layers=#map=14.44/34.4859/-118.24606

28 According to SCE's distribution equipment database, Structure No. 676762E is located at Lat 34.497403 Lon-118.263879

complex windstorm throughout SCE's service area". That is nonsense. ESRB-8 was adopted in July, 2018, and that is when SCE began its "PSPS Journey"; so, SCE has had nearly 7 years to "get PSPS right". Yet, SCE got it all wrong in January, 2025. The Council echoes the comments presented by the City of Moorpark (Moorpark) on SCE's January 2, 2025 PSPS Post Event Report regarding the hardships visited on frequently de-energized customers and the poor coordination that occurred in this event. In particular, we agree with Moorpark's recommendation that the Commission direct SCE (and all the other utilities) to improve transparency regarding de-energization events and re-energization efforts and we point out that this is a reason why Proceeding R.18-12-005 should remain open. The Council also agrees with Moorpark's request that SCE further harden the Brennan circuit. However, SCE's Post Event Report states that the Brennan circuit has de-energization thresholds of 38 mph sustained winds and 55.1 mph wind gusts; these are close to the maximum values that SCE recognizes (which are 40 mph sustained and 58 mph gust). They are also similar to the thresholds that SCE has established for the Community of Acton, but we have learned the hard way that having a high de-energization threshold does not offer the protection that is hoped for because SCE will cut power regardless of actual wind speeds and irrespective of the de-energization thresholds it assigns.

The Council also agrees with the comments on SCE's January 2, 2025 PSPS Post Event offered by the Public Advocates Office recommending that SCE be directed to file a Corrective Action Plan; however, we believe that this Corrective Plan should be open to public review and comment (which is yet another reason why Proceeding R.18-12-005 should remain open). The Council also believes that it is not enough to merely fine SCE for its poor performance because history has taught us that fining SCE for poor performance does nothing to improve performance. That is why the Corrective Action Plan is so important; it should include a comprehensive analysis of everything that went wrong with SCE's PSPS notice procedures and de-energization decisions in January and incorporate concrete and specific measures that will be implemented to eliminate these deficiencies. Additionally, it should include provisions that require SCE to quantitatively demonstrate year over year that it has successfully implemented measures that have measurably reduced the scope and frequency of its PSPS activities.

The Council will not belabor the points made so eloquently by others regarding SCE's notification deficiencies, communication failures, and extensive impacts. However, we must point out that, as a rural community, the impacts of lengthy and frequent PSPS events on Acton residents are somewhat unique. For example, and as explained above, when there is no power in Acton for days, many residents have no water for days (because their domestic well pumps do not operate); this means they have no working

toilets or faucets and no way to water their livestock. Also, heating is a real problem, particularly in January when nighttime temperatures are in the 30's and even 20's (most of Acton is at an elevation exceeding 3,000 feet). These impacts are in addition to urban-style problems (which Acton also has) such as traffic light outages that cause accidents, stores and gas stations not working, food spoilage, etc. A montage of community frustrations is provided in Attachment 3 which expresses a local perspective on SCE's poor PSPS decisions (since SCE cut power when winds were not significant), its poor notifications, its poor support services (the CRC jumped back and forth between Acton and Agua Dulce and it would run out of supplies), and the lack of knowledge displayed by SCE staff at the CRC. Additionally, Attachment 4 is a compilation of the notices received by one resident during this recently concluded "PSPS Season".

OTHER PROBLEMS WITH SCE'S POST EVENT REPORT

As explained above, SCE has initiated inappropriate de-energization events on every distribution circuit in Acton when wind conditions did not warrant and based on inapplicable wind measurements collected at the top of transmission facilities located on high ridgelines. However, these circumstances cannot be elucidated from SCE's January 4, 2025 PSPS Post Event Report because SCE's post event report fails to provide the level of detail that is necessary to recognize them. For example, SCE's January 4 2025 Post Event Report states that the Shovel circuit in Acton was de-energized on January 8 at 12:12 PM and not re-energized until January 16 at 1:03 PM (Table 5 in the "Event Data Workbook"); this is not an accurate portrayal of SCE's power shutoff activities on the Shovel circuit because all the segments on the Shovel circuit were de-energized multiple times between January 8 and January 16 and none of it was justified because windspeeds were well below any thresholds (as explained above). The only redeeming factor in SCE's January 2, 2025 PSPS Post Event Report is that it confirms SCE's initial de-energization decisions were not warranted or reasonable for any of the circuits in Acton because all the "actual" windspeeds it reports are below the established de-energization thresholds for these circuits; these "actual" results are summarized in Table 5.

Table 5. Wind Conditions Reported By SCE When Each Circuit in Acton was Shutoff.

Circuit	Shutoff Date	Shutoff Time	Windspeed (mph)		Wind Gust (mph)	
			Threshold	Actual	Threshold	Actual
Bootlegger	Jan 8	1:13 AM	40	25.58	58	52.39
Shovel	Jan 8	12:12 PM	38	34.46	55.1	46.98
Pick	Jan 8	12:11 PM	38	34.46	55.1	46.98

SCE's January 4, 2025 PSPS Post Event Report is so lacking in granularity that it does not report when circuit sections were de-energization. This makes it *impossible* to assess the weather conditions at the time of each de-energization on each segment or ascertain whether the weather conditions warranted de-energization. By extension, this makes it impossible for the Commission to assess whether SCE did indeed implement sectionalization in a manner that "limits the scope of a de-energization" as required by the PSPS Guidelines[29]. The lack of detail in the report also makes it impossible for the Commission to assess whether SCE's power shutoff decisions were "reasonable" as that term is contemplated in §451 of the California Public Utilities Code. Notably, a core intent of the PSPS Guidelines is "to enable Commission review of whether such [PSPS] implementation efforts were reasonable"[30]; this intent is not achieved by SCE's January 2 PSPS Post Event Report because the report lacks critical information needed by the Commission needs to assess whether SCE's PSPS implementation efforts were "reasonable". To rectify this deficiency, the Council reconciled all the shutoff notices we received for all the segments on all the circuits in Acton and, as explained in detail above, we found that SCE did not deploy PSPS as a "last resort" measure as required by the Guidelines.

SCE's January 2, 2025 PSPS Post Event Report indicates that SCE uses non-representative and inappropriate wind measurements taken from transmission towers on ridgelines to shutoff power on distribution facilities. For instance, SCE's report states that the Bootlegger circuit was de-energized on January 8 at 1:13 AM based on a wind gust reading of 52.39[31]; however, such a wind gust was not measured on any of the weather stations deployed on Bootlegger distribution circuits on or before January 8 at 1:13 AM. The only the weather station that reported such a wind gust around that time was Station No. 555SE which (as explained above) is atop a transmission tower located on a ridgeline in the Angeles National Forest (it reported a wind gust of 52.4 mph).

SCE's January 2, 2025 PSPS Post Event Report erroneously claims that circuit segments were not de-energized when in fact they were. For example, SCE reports that Segment 10 of the Bootlegger circuit was "not affected" by the January 4 PSPS event[32]; however, Segment 10 was de-energized during the January 2 PSPS event. In fact, Segment 10 was

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[29] Unofficial Compendium of Public Safety Power Shutoff (PSPS) Guidelines and Rules 26, 27.

[30] Id at 5.

[31] PSPS Event Data Workbook Table 2 and Table 5.

[32] Segment 10 is not shown as having been de-energized in the Bootlegger Circuit map provided on page 20 of the file titled "20250104_PSPS _Event_ImpactMitigation.pdf" that was included as a component of SCE's January 4, 2025 PSPS Post Event Report.

de-energized every time Segment 4 was de-energized because Segment 4 "feeds" Segment 10. Therefore, it was impossible for Bootlegger Segment 10 to have remained energized when the adjacent segments were de-energized. It also fails to provide information pertaining to certain circuits. For example, it omits the Pick circuit from the maps of de-energized areas that are provided in the report.

SCE's January 2, 2025 PSPS Post Event Report fails to discuss SCE's decisionmaking pertaining to the de-energization of transmission lines, even though some transmission lines were de-energized, and (as explained above) other transmission lines should have at least been considered for de-energization. Specifically, SCE's Post Event Report confirms that four transmission lines were de-energized in Eaton Canyon (page 7) but SCE provides no details at all; instead, SCE states in a footnote that these transmission lines were de-energized because of a wildfire and the PSPS event. This does not comply with the reporting requirements set forth in the PSPS Guidelines which require SCE to identify and discuss all the factors that were considered in its de-energization decisions.

CONCLUSION

SCE'S January 2 PSPS event that shutoff power on all distribution circuits in Acton imposed considerable hardship on the Community and as explained in detail above, none of it was warranted. Moreover, wind data collected from SCE's own transmission facility weather stations indicate that on the ridgelines where transmission facilities are located, windspeeds were sufficiently high to warrant at least some consideration of de-energization, but SCE did not. SCE's inclination to shutoff power on Acton distribution circuits without reason and thereby cause undue hardships on our community is bad enough, but when coupled with SCE's disinclination to even consider shutting off power on transmission lines that pose a substantial wildfire risk to Acton under wind conditions that exceed Commission standards is inexcusable. The Commission must find that SCE's PSPS activities beginning January 2 were unreasonable and its PSPS Post Event Report is deficient.

Note: The windspeed information that is referred to herein was too cumbersome to include in this report because it involves approximately 30 spreadsheets and each spreadsheet includes thousands of lines of data. ***However, this information can be provided upon request.***

Sincerely;

/S/ Jeremiah Owen

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March 25, 2025

Subject: Acton Town Council Comments on the January 17, 2025 PSPS Post Event Report Filed by Southern California Edison.

Reference: Letter to Director Palmer from Southern California Edison Dated March 10, 2025 titled "SCE PSPS Post Event Report – January 17, 2025 to January 27, 2025"

Dear Director Palmer;

The Acton Town Council (Council) respectfully submits the following comments on the "Post-Event Report" prepared by Southern California Edison (SCE) which addresses the "Public Safety Power Shutoff" (PSPS) events of January 17 - January 27, 2025. These comments are timely filed within the 15-day deadline established by D.19-05-042; they have also been distributed to those on the Service List for R.18-12-005.

PRELIMINARY COMMENTS

The comments provided herein present substantial evidence that SCE's PSPS activities in the month of January, 2025 expressly violated §399.2 and §451 of the California Public Utilities Code (the Code) by failing to provide Southern California residents in general and Acton residents in particular with just, reasonable, safe, and reliable power. As explained in detail below, SCE initiated power shutoffs throughout Southern California without justification; in fact, the data presented in SCE's "PSPS Event Data Workbook" indicate that actual wind conditions on most circuits were well below SCE's de-energization thresholds when power was shutoff. Equally alarming, SCE used unreasonable and inexplicably low "Fire Potential Index" de-energization thresholds on all the distribution circuits that were de-energized in the January 17 PSPS event; presumably this was "out of an abundance of caution" because of the raging Eaton fire

that may have occurred as a result of induced current on idle SCE transmission facilities[1] . Ironically, while SCE was busy proactively de-energizing distribution facilities in high wind areas to prevent wildfires, it did not and would not proactively de-energize transmission facilities in high wind areas even though SCE knows that its transmission facilities can ignite wildfires in high wind areas[2].

Additionally, SCE failed to properly sectionalize circuits and even cut power to residents with 100% underground electrical service from the local substation; these residents should never have been de-energized because their distribution circuits are not susceptible to wildfire ignition. Everything about SCE's PSPS events in January was inappropriate; SED should find as much and recommend that the Commission initiate a reasonableness review of all SCE PSPS activities between January 2-27, 2025.

SCE'S POWER SHUTOFFS DURING THE JANUARY 17 PSPS EVENT WERE INAPPROPRIATE AND UNREASONABLE.

As explained in detail in our comments on SCE's January 2, 2025 PSPS Post Event Report, SCE asserts that it only initiates power shutoffs when the local "Fire Potential Index" (FPI) is exceeded AND when a wind threshold is exceeded[3]. Accordingly, SCE is not supposed to initiate any power shutoffs unless and until both the FPI de-

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[1] According to a letter from SCE to the Commission and dated February 6, 2025, a fault occurred on the Eagle Rock-Gould 220 kV transmission line just before the Eaton fire broke out; this caused an increase in current on the four 220 kV lines in Eaton Canyon where the Eaton fire started. SCE states it never found the cause of the fault "which is not unusual in an extreme weather event" (page 3). SCE is considering whether an idle 220 kV transmission line located at the origin of the Eaton Fire became energized through induction. The Council does not have any information on the Eagle Rock-Gould 220 kV line (when it was constructed, the wind load standard it was designed to withstand, etc.); however, an SCE weather station measured wind gust levels on that line exceeding 56 miles per hour around the time the fault occurred (Station No. 720SE https://viewer.synopticdata.com/map/data/202501082000/air-temperature/720SE/about?layers=#map=17.98/34.163092/-118.188931). The Eagle Rock-Gould is at an elevation of less than 3000 feet and aerial imagery suggests that it is not a lattice structure; therefore, it is likely that the applicable GO-95 standard is 8 psf (56 mph). However, the Table 4 safety factor is only 1.25 and SCE is not required to replace these structures until the safety factor drops to 0.8333; this corresponds to a wind load standard of only 6.67 psf (51 mph).

[2] SCE transmission facilities ignited the Saddleridge fire. Additionally, and according to SCE's Post Event Report submitted for both January 2025 PSPS events, SCE did not de-energize any transmission lines until *after* the Eaton Fire broke out, and even then, the only transmission lines that SCE de-energized were located in the Eaton Fire burn area.

[3] See page 2. Also, see Table SCE B-01 on page 714 of SCE's 2023-2025 Wildfire Mitigation Plan (WMP).

energization threshold is exceeded *AND* a wind threshold (in the vicinity of the circuit) is exceeded. However, during the PSPS event initiated on January 17, SCE routinely cut power on circuits throughout Southern California when no wind thresholds were exceeded. Equally troubling, the FPI de-energization thresholds that SCE established for this PSPS event were unreasonably low and are not substantiated anywhere in SCE's PSPS Post Event Report. Additionally, SCE failed to implement sectionalization to limit the scope of its PSPS events in January, and thereby violated D.19-05-042. All of these failures are discussed in detail below.

SCE Established Unreasonably Low FPI De-Energization Thresholds

SCE's Post Event Report for the January 17 PSPS event states that, for most areas, the FPI de-energization threshold is 13, and that it is only in a few areas where an FPI de-energization threshold of 12 or less "may be appropriate" (pages 9-10) SCE further states that it assigns an FPI de-energization threshold of 12 only to areas that are 1) in a "Coastal" Fire Climate Zone; or 2) assigned a Geographic Area Coordination Center (GACC) preparedness level of 4 or 5 due to "resource drawdown concerns"; or 3) in an active Fire Science "Area of Concern" (AOC) because of egress, fire history, and other factors. However, none of these statements are consistent with the actual FPI de-energization threshold that SCE applied for all of Southern California for the January 17 PSPS; in fact, Table 2 of SCE's "PSPS Event Data Workbook" (Workbook) states quite clearly that *SCE assigned an FPI de-energization threshold of 12 or less for* ***every*** *distribution circuit that was de-energized*. SCE does not even mention this enormous discrepancy and it certainly does not explain it. It is as if SCE just slapped together a boilerplate report template, appended the "Workbook", and then submitted it to SED without even thinking about whether the statements in the boilerplate report accurately reflected the statistics presented in the "Workbook".

At the very end of the Post Event Report, SCE mentions on page 41 that "During this event, the Geographic Area Coordination Center (GACC) preparedness level remained at level 4, as it had been set prior to this PSPS event". The Council presumes that this contributed to SCE's decision to universally drop the FPI de-energization threshold to 12, but that is only a guess. SCE provides no description other than to say the GACC level "indicates a significant drawdown of fire suppression resources. This level of preparedness suggested that the available resources were stretched thin, which would have significant negative impacts on fire response capabilities". However, the GACC Preparedness level and the status of fire suppression resources do not provide the basis for power shutoff decisions; rather, they merely contribute to the FPI de-energization threshold which, if exceeded, then prompts SCE to consider whether windspeed thresholds are exceeded. In fact, the Commission has repeatedly established that

shutoffs are reasonable only if a utility can demonstrate that there was significant and imminent risk that "strong winds will topple its power lines" or cause "major vegetation-related impacts" [ESRB-8, p. 4-5, D.21-06-034 pp. 22-24]; this explicitly constrains SCE's decisions to initiate power shutoffs regardless of what the "GACC preparedness level" is on any particular day. Moreover, there is no risk of "major vegetation-related impacts" in Acton because all the distribution facilities in Acton have been retrofitted with covered conductor; accordingly, the only time that SCE can shutoff power in Acton is when "strong winds" exist that will "topple its power lines". Furthermore, the Commission has clearly defined what constitutes the "strong wind" conditions under which a utility has authority under §§ 451 and 399.2(a) to shut off power in order to protect public safety: "strong wind" conditions are those that "exceed the design basis" for SCE's electrical facilities [D.12-04-024 at 1]. Given that the windload "design basis" for all distribution power poles in Acton is a minimum of 56 mph[4] , all of SCE's power shutoffs are "unreasonable" and in violation of §§ 451 and 399.2(a) according to Commission directives when they occur at windspeeds less than 56 mph and regardless of the status of any "fire suppression resources" or "GACC preparedness level" or any other factor that SCE cites. As explained in detail below, virtually ***none*** of SCE's power shutoffs in Acton complied with Commission directives because ***every*** power shutoff that SCE initiated in Acton was prompted by wind speeds less of than 56 mph.

Finally, the manner in which SCE's Post Event Report discusses FPI input parameters is disingenuous and misleading. For instance, Footnote 6 identifies some parameters that are input to the FPI equation, but then states that SCE does not report temperature, humidity, and moisture in its Post Event Reports because these "are not direct inputs into the FPI calculation" and thus "not distinct factors considered in SCE's de-energization decisions". This gives the impression that SCE *does* report on factors that are "direct inputs to the FPI calculation" and only omits non-input factors. This impression is utterly false. SCE does not and will not report on the "distinct factors considered in SCE's de-energization decisions" because SCE does not and will not report on any of the "direct inputs into the FPI calculation". As explained in our comments on SCE's January 2, 2025 Post Event Report, SCE has steadfastly refused to provide ***any*** information regarding the parametric data used to calculate its FPI de-energization thresholds or assess "real time" FPI values on each circuit during the PSPS event. Everything SCE says about its FPI calculations, its FPI de-energization thresholds, and its FPI monitoring activities is either erroneously incomplete or completely erroneous.

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[4] Section 43.1 of General Order 95 requires all cylindrical power poles to be designed to withstand winds of 6 psf and Section 44.1 imposes a safety factor of 1.25; this means that the "design basis" for all distribution facilities in Acton is 8 psf or 56 mph.

[NOTE: The Council has recently learned that the GACC Preparedness Level was only 3 when SCE de-energized all circuits in Acton on January 8 during its January 2 PSPS event; this further supports our contention that SCE acted unreasonably when it assigned an FPI de-energization threshold of only 12 to the Pick and Shovel circuits in Acton. For reference, see pages 14-15 of our comments on SCE's January 2 PSPS Post Event Report submitted March 18, 2025.]

SCE Shutoff Power When No Wind Thresholds were Exceeded

Table 2 of the "Workbook" that SCE included in the January 17 PSPS Post Event Report reveals that, on more than half of the circuits that were de-energized, windspeeds ***did not*** exceed any sustained wind thresholds or wind gust thresholds; yet, SCE de-energized them anyway. Perhaps the most egregious example is SCE's decision to de-energize the "Veterans" circuit when the recorded wind speed was only 9 miles per hour and the recorded wind gust was only 20.5 mph; to compound this colossal error, the recorded FPI value on the Veterans circuit was well below the FPI de-energization threshold of 12 (it was 11.2 when SCE shutoff power)! SCE's Post Event Report tries to minimize the implications of SCE's terrible de-energization decisions by suggesting that perhaps higher windspeeds may have occurred after the circuit was de-energized. For example, SCE states in Footnote 7 that "sustained and gust wind speeds [reported] in Table 2 are recorded at the time the decision was made to begin the de-energization process and do not reflect peak wind and gust speeds observed during the Period of Concern". Unfortunately, it is complicated to ascertain whether windspeeds exceeded thresholds after circuits are de-energized; specifically, the process involves the following time consuming steps:

1. Identify and map out the location of each segment of each circuit that was de-energized.
2. Analyze all the power shutoff notices that SCE issued during the PSPS event to ascertain the precise date and time that each segment of each circuit was de-energized.
3. Identify and map out the location of all the weather stations that monitor conditions on each segment of each circuit that was de-energized.
4. Download the wind data recorded by each weather station on each segment of each circuit that was de-energized[5].

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[5] The data is available in spreadsheet format from Synoptic (https://synopticdata.com/data-viewer/); however, unless a subscription is purchased, only a few data sets can be downloaded in a three day period for free. The Synoptic technical assistance group can temporarily increase the number of data set downloads upon request; they kindly increased number of data sets that the Council accessed for a short period of time.

5. Reconcile the downloaded wind data collected in Step 4 with the power shutoff time frames established in Step 2 and identify the maximum sustained windspeeds and wind gusts that were recorded on each segment of each circuit after it was de-energized.

The Council followed this process for three distribution circuits in Acton to assess whether SCE's de-energization decisions were "reasonable" as that term is defined by §451 the Public Utilities Code. As set forth below, the results of this analysis demonstrate that SCE's PSPS decisions were not "reasonable".

The Bootlegger Circuit During the January 17 PSPS event, SCE de-energized three segments of the Bootlegger Circuit in Acton (specifically, Segments 3, 4, and 5). The Council has mapped the locations of SCE weather stations on these Bootlegger segments; this map is provided in Figure 1. It must be noted that some of the weather stations indicated on this map are on transmission facilities located on ridgelines and are not on distribution facilities; these transmission facility weather stations are indicated with a different color. Based on this map, the Council downloaded weather data for each de-energized Bootlegger segment for the duration of the January 17 PSPS event and reconciled it with SCE's power shutoff notices issued for each Bootlegger segment. The results of this analysis are summarized in Table 1 which shows that the Bootlegger distribution circuit did not experience wind conditions that met or exceeded SCE de-energization thresholds either during the 12 hour period *before* power was shutoff or during the 12 hour period *after* power shutoff. Accordingly, *none* of the power shutoffs on the Bootlegger circuit during the January 17 PSPS event were warranted and *none* complied with SCE's PSPS protocols.

Tables 1 and 2 of SCE's "Workbook" report that the Bootlegger circuit was de-energized at 5:39 AM on January 20 because a wind gust of 52.3 mph was recorded. However, this wind gust measurement was actually recorded by an SCE ***transmission*** weather station located on a transmission tower high on a ridgeline in the Angeles Forest and many miles from where Acton residents were de-energized; therefore, it does not represent conditions on the Bootlegger distribution circuit and the data it records should ***never*** have been used to shutoff power to Acton residents[6]. Equally important, and as discussed in more detail below, wind gusts recorded by this transmission weather station throughout the January 17 PSPS event eventually reached 75.6 mph; yet, SCE never even considered shutting off power on this transmission line!

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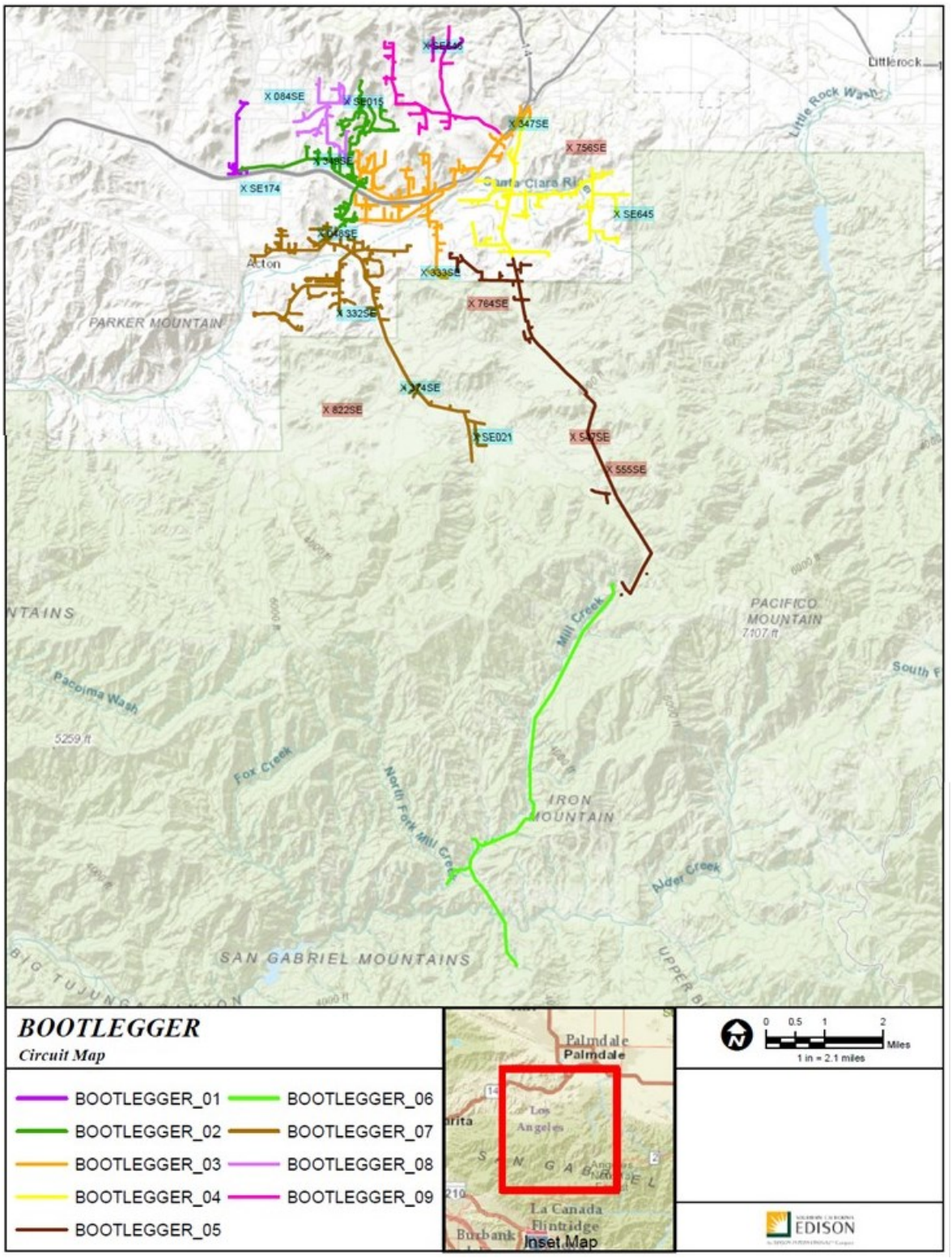
[6] The weather Station No. is "555SE"; SCE refers to this weather station as "N3" which presumably relates to the "N3 Angeles Forest Highway" that traverses the Angeles Forest.

Figure 1. Bootlegger Circuit Map Showing Locations of Distribution Weather Stations.



NOTE: Shortly before these comments were submitted, SCE provided an updated Bootlegger map to the Council; however, this new map came too late to be incorporated herein. Therefore, this map depicts the Bootlegger configuration as of January 8, 2025.

Table 1. Wind Measurements Recorded by the Bootlegger Circuit Weather Stations.

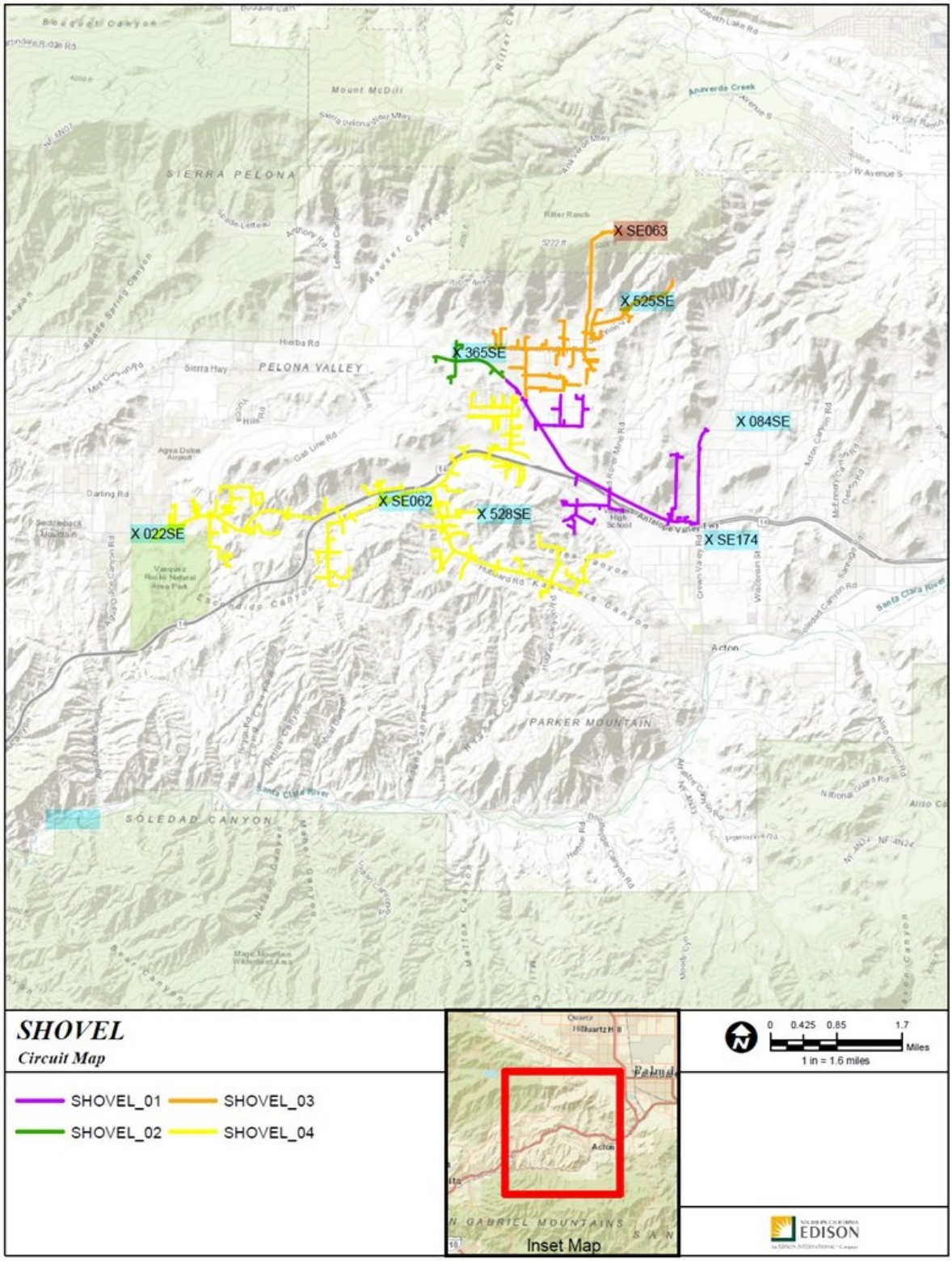
BOOTLEGGER CIRCUIT				Condition when SCE Notice was Issued		Peak Conditions within 12 Hours Before Shutoff		Peak Conditions within 12 Hours After Shutoff	
Segment	Shutoff notice	Weather Station ID		Windspeed mph	Wind gust mph	Windspeed mph	Wind gust mph	Windspeed mph	Wind gust mph
1	None	084SE		N/A	N/A	N/A	N/A	N/A	N/A
	None	SE174		N/A	N/A	N/A	N/A	N/A	N/A
2	None	349SE		N/A	N/A	N/A	N/A	N/A	N/A
	None	048SE		N/A	N/A	N/A	N/A	N/A	N/A
3	January 20 2141	333SE		13.1	29.3	19.7	39.5	18.0	37.9
		347SE		26.2	40.2	31.1	50.7	25.2	46.3
	January 23 1114	333SE		17.5	33.4	17.9	33.4	18.0	37.1
		347SE		32.1	41.7	31.2	41.3	32.7	44.5
4	January 20 2141	SE645		11.4	28.6	13.5	34.6	13.2	28.8
		347SE		26.2	40.2	31.1	50.7	25.2	46.3
	January 23 1114	SE645		10.7	26.8	11.0	30.6	10.8	27.2
		347SE		32.1	41.7	31.2	41.3	32.7	44.5
	January 25 327	SE645	*	4.4	19.8	12.8	32.2	14.8	30.8
		347SE		21.4	32.0	22.8	33.5	22.6	34.8
5	January 20 544	SE645		5.3	11.5	6.5	15.3	11.0	29.3
	January 22 834	SE645		6.3	14.1	7.3	18.8	11.2	30.9
	January 25 327	SE645		21.4	32.0	22.8	33.5	22.6	34.8
6	NOT RELEVANT - THIS SEGMENT IS NOT LOCATED IN ACTON								
7	None	048SE		N/A	N/A	N/A	N/A	N/A	N/A
	None	374SE		N/A	N/A	N/A	N/A	N/A	N/A
	None	332SE		N/A	N/A	N/A	N/A	N/A	N/A
	None	SE021		N/A	N/A	N/A	N/A	N/A	N/A
8	None	SE015		N/A	N/A	N/A	N/A	N/A	N/A
9	January 20 2141	SE646		24.4	36.3	25.8	39.2	25.6	39.0
	January 23 1114	SE646		9.2	25.7	18.6	28.5	17.8	37.8

Notes:

* The notification that SCE sent out stated that only Segments 5 and 6 would be de-energized, but much later, a "power restoration" notice was issued for Segment 4; therefore, it is assumed that power was cut on Segment 4 when Segments 5 and 6 were de-energized.

The Shovel Circuit: During the January 17 PSPS event, SCE de-energized all four segments on the Shovel circuit multiple times; a map of the Shovel circuit is provided in Figure 2 and it is marked to indicate the locations of weather stations on the various segments (indicated in blue highlights) as well as other weather stations (such as transmission and radio tower/communication facilities which are indicated in purple highlights). Based on this map, the Council downloaded weather data pertaining to the Shovel circuit for the duration of the January 17 PSPS event and reconciled it with SCE's power shutoff notices issued for each circuit segment. The results of this analysis are summarized in Table 2 which shows that the Shovel distribution circuit did not experience wind conditions that met or exceeded SCE de-energization thresholds either during the 12 hour period *before* power was shutoff or during the 12 hour period *after* power shutoff. Accordingly, *none* of the power shutoffs on the Shovel circuit were warranted during the January 17 PSPS event and *none* complied with SCE's PSPS protocols.

Figure 2. Shovel Circuit Map Showing Locations of Distribution Weather Stations.



NOTE: Shortly before these comments were submitted, SCE provided an updated Shovel Circuit map to the Council; however, this new map came too late to be incorporated herein. Therefore, this map depicts the Shovel Circuit configuration as of January 8, 2025.

Table 2. Wind Measurements Recorded by the Shovel Circuit Weather Stations.

SHOVEL CIRCUIT				Condition when SCE Notice was Issued		Peak Conditions within 12 Hours Before Shutoff		Peak Conditions within 12 Hours After Shutoff	
Segment	Shutoff notice		Weather Station ID	Windspeed mph	Wind gust mph	Windspeed mph	Wind gust mph	Windspeed mph	Wind gust mph
1	January 20	930	SE174	22.2	37.1	21.1	32.1	28.6	44.3
			084SE	24.8	38.7	26.6	41.2	26.2	41.8
	January 23	213	SE174	19.4	28.1	20.1	31.2	25.9	41.3
			084SE	23.1	36.3	23.1	36.7	27.7	48.0
2	January 20	930	365SE	34.4	47.2	34.1	50.2	33.3	48.9
	January 23	213	365SE	23.7	38.7	29.3	41.0	37.8	54.0
3	January 20	930	525SE	17.0	27.7	19.4	36.2	17.2	36.4
	January 23	213	525SE	19.3	33.1	20.0	34.2	26.6	43.3
4	January 20	930	528SE	25.6	39.8	25.4	40.3	26.3	46.5
			SE062	13.5	27.2	19.1	31.7	22.2	40.0
	January 23	213	528SE	21.6	37.2	21.6	33.7	23.9	44.0
			SE062	13.2	24.0	18.1	29.8	27.9	44.9

Tables 1 and 2 of SCE's "Workbook" report that the Shovel circuit was de-energized at 9:19 AM on January 20 because a wind gust of 52.2 mph was recorded. However, the Council has reviewed all the wind data for all SCE weather stations in and surrounding the Shovel Circuit and found that none of them registered a 52.2 mph wind gust on or before 9:20 on January 20. The closest data point we found was a wind gust measurement of 50.2 mph recorded by Weather Station No. "365SE" located on the Northwest end of the Shovel circuit. However, this is well below the 58 mph de-energization threshold, and in any event, no sustained wind speed or wind gust measured by Weather Station No. "365SE" ever exceeded the de-energization thresholds that SCE established for the Shovel circuit during the January 17 PSPS event. This information further supports the Council's contention that there was no justification for SCE to de-energize any portion of the Shovel circuit.

Additionally, a comparison of Figures 1 and 2 reveal that the weather stations which monitor conditions on Bootlegger Segment 1 are the same weather stations that monitor conditions on Shovel Segment 1. Yet, during the January 17 PSPS event, SCE never cut power on Bootlegger Segment 1, *but did cut power on Shovel Segment 1*. This was intrinsically unreasonable because Bootlegger Segment 1 experienced the same wind conditions as Shovel Segment 1; given that SCE did not shutoff power to Bootlegger Segment 1, it should not have shutoff power to Shovel Segment 1. The arbitrary, unreasonable, and completely unwarranted power shutoff on Shovel Segment 1 wrought havoc on the local High School schedule and caused a frequent loss of classroom days in January. The local school district has been struggling to obtain a reliable source of

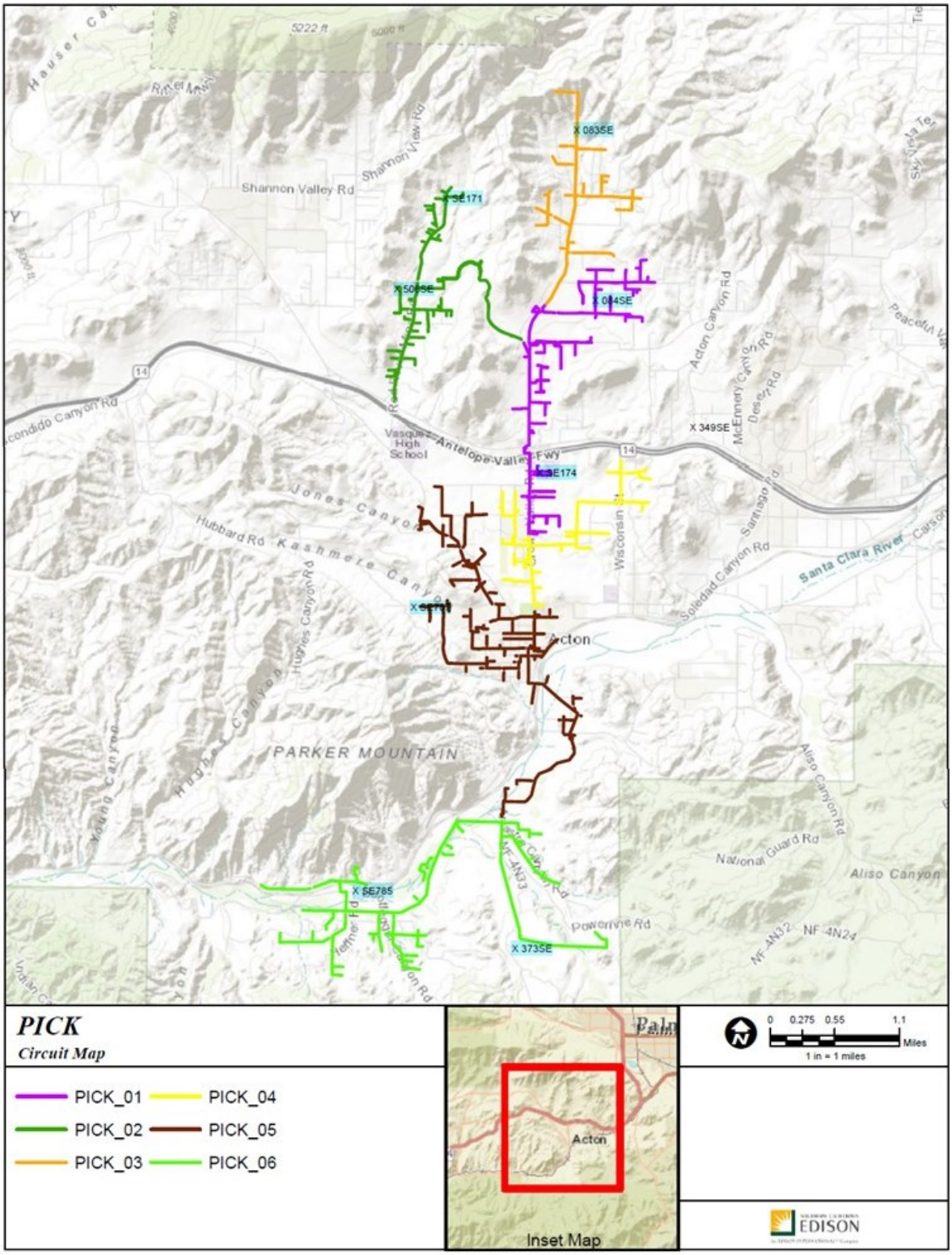
backup power but has not yet succeeded in this endeavor. And, because of the way that SCE has chosen to define the term "Rural", the School District in Acton is not eligible to participate in the "Microgrid Incentive Program" established by D.23-04-034. In fact, and insofar as the Council can establish, none of the rural community in Los Angeles County, San Bernardino County, Riverside County, Orange County, and Ventura County meet SCE's definition of "rural".

The Pick Circuit During the January 17 PSPS event, SCE de-energized all segments of the Pick Circuit (specifically, Segments 1, 2, 3, 4, 5, and 6). The Council has mapped the locations of SCE weather stations on these Pick segments; this map is provided in Figure 3. Based on this map, the Council downloaded weather data for each de-energized Pick circuit segment for the duration of the January 17 PSPS event and reconciled it with SCE's power shutoff notices issued for each segment. The results of this analysis are summarized in Table 3 which shows that no segments of the Pick circuit experienced wind conditions that exceeded SCE's de-energization thresholds of 40 mph sustained winds and 58 mph wind gusts[7]. It is noted that the wind gusts recorded for Pick Segment 2 are higher than the wind gusts recorded elsewhere on the Pick circuit; this is because Segment 2 is an offshoot that extends into a broad shallow valley known as Red Rover Mine Valley. Data recorded by SCE Weather Stations over the last 6+ years clearly demonstrate that wind conditions in the Red Rover Mine Valley are unique and do not reflect wind conditions elsewhere in Acton. Just before SCE de-energized the Pick circuit at 9:20 on January 20, a wind gust of 56.9 mph was recorded on a weather station on Segment 2; because this wind gust was close to the 58 mph de-energization threshold that SCE has established for the Pick circuit, it would perhaps provide SCE with sufficient basis to de-energize Pick Segment 2. However, *it did not under **any** circumstance provide **any** basis* for SCE to de-energize the entire Pick circuit; yet, by 11:15 that day, power was shutoff to every customer on the Pick circuit. As Table 3 demonstrates, *none* of the power shutoffs on Segments 1, 3, 4, 5, and 6 were warranted and *none* complied with SCE's PSPS protocols.

Additionally, a comparison of Figures 1 and 3 reveal that the weather stations which monitor conditions on Bootlegger Segments 1 and 2 are the same weather stations that monitor conditions on Pick Segments 1 and 4. Yet, during the January 17 PSPS event, SCE never cut power on Bootlegger Segments 1 and 2, *but it did cut power on Pick Segments 1 and 4*. This was intrinsically unreasonable because Bootlegger Segments 1 and 2 experienced the same wind conditions as Pick Segments 1 and 4; because SCE did not shutoff power to Bootlegger Segments 1 and 2, it should not have shutoff power to

[7] These are the Shovel Circuit de-energization thresholds according to the "Workbook" Table 2.

Figure 3. Pick Circuit Map Showing Locations of Distribution Weather Stations.



NOTE: Shortly before these comments were submitted, SCE provided an updated Pick Circuit map to the Council; however, this new map came too late to be incorporated herein. Therefore, this map depicts the Pick Circuit configuration as of January 8, 2025.

Table 3. Wind Measurements from the Pick Circuit Weather Stations.

PICK CIRCUIT				Condition when SCE Notice was Issued		Peak Conditions within 12 Hours Before Shutoff		Peak Conditions within 12 Hours After Shutoff	
Segment	Shutoff notice		Weather Station ID	Windspeed mph	Wind gust mph	Windspeed mph	Wind gust mph	Windspeed mph	Wind gust mph
1	January 23	1112	SE174	19.7	37.4	24.1	35.4	25.9	41.3
			084SE	27.4	40.3	27.7	48.0	27.5	47.4
2	January 20	920	SE171	18.6	45.5	20.2	56.9	20.5	47.7
			506SE	33.5	46.9	34.0	52.2	35.6	52.1
	January 23	213	SE171	19.4	36.8	21.0	37.6	25.0	45.5
			506SE	31.4	43.7	31.4	46.3	36.9	56.2
3	January 23	1112	083SE	12.0	31.8	13.4	39.0	21.3	46.4
4	January 23	1112	SE174	19.7	37.4	24.1	35.4	25.9	41.3
5	January 23	1112	SE174	19.7	37.4	24.1	35.4	25.9	41.3
			SE787	20.9	39.4	23.9	35.5	27.4	42.9
6	January 23	1112	SE785	21.1	35.3	19.8	33.7	25.3	45.6
			373SE	21.3	35.5	23.2	37.1	26.6	40.1

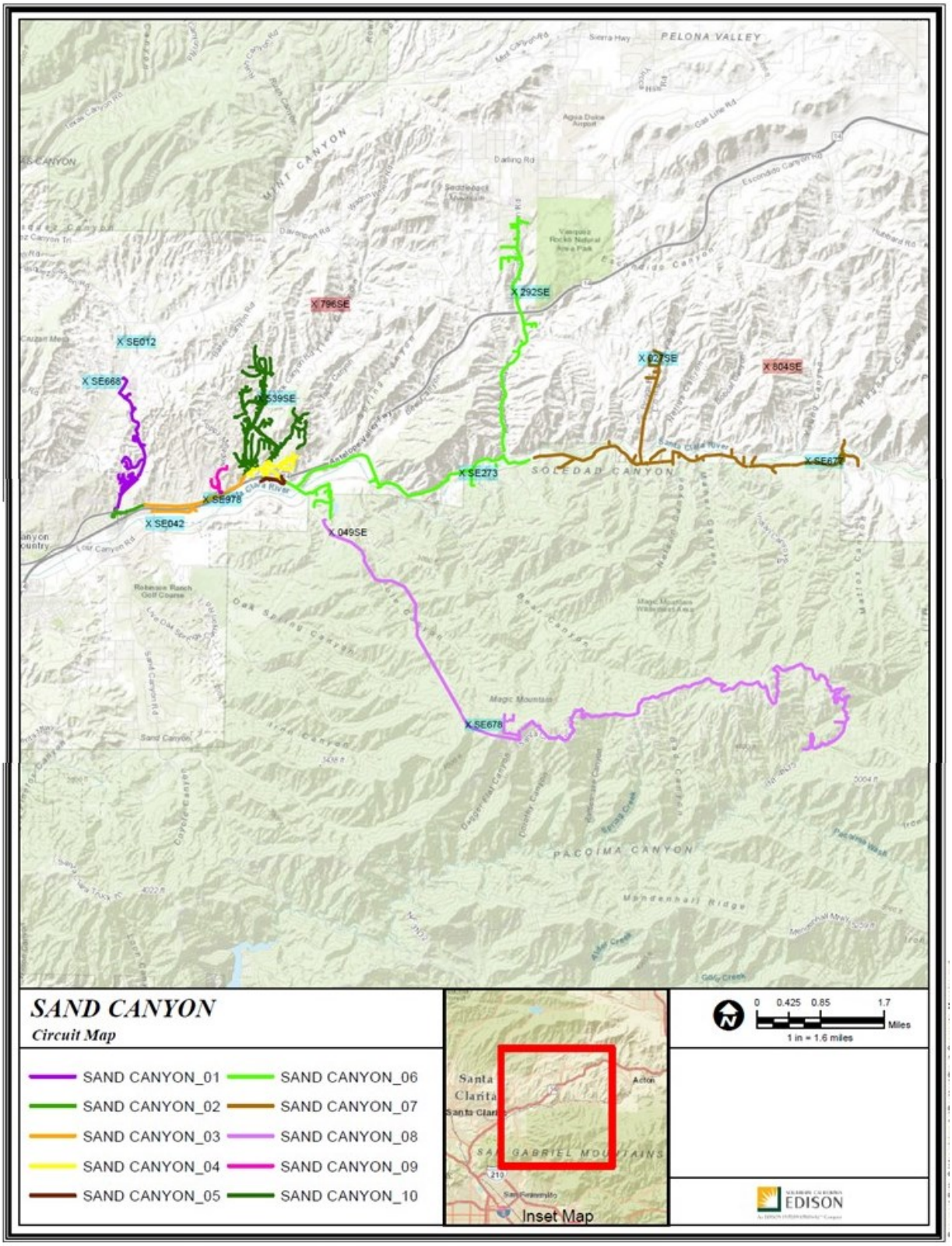
Pick Segments 1 and 4. The arbitrary, unreasonable, and completely unwarranted power shutoff on Shovel Segment 1 wrought havoc on the local Middle School schedule and caused a frequent loss of classroom days in January. The local school district has been struggling to obtain a reliable source of backup power but has not yet succeeded in this endeavor.

The Sand Canyon Circuit. Because SCE's Post Event Reports provide no data on when circuit segments were de-energized and because SCE never sends the Council any PSPS notices regarding the Sand Canyon circuit[8], we have no specific information regarding when the various segments on the Sand Canyon circuit were de-energized (although we understand that Acton residents served by the east end of the Sand Canyon circuit were de-energized during the January 17 PSPS event). However, we have been able to reconstruct some of SCE's de-energization activities on the Sand Canyon circuit and are able to provide the following analysis of these activities and whether they were reasonable and appropriate.

According to Tables 2 and 5 of SCE's "Workbook", the Sand Canyon Circuit was de-energized at 6:56 AM on January 20 because sustained winds of 44.6 mph and a wind gust of 68 mph were recorded. The Council has reviewed the wind data reported by all the weather stations on the Sand Canyon distribution Circuit (shown in Figure 4) and found only one weather station that recorded windspeeds exceeding SCE's de-energization thresholds. This weather station ("SE678") is located on a power line off shoot that extends to a remote radio and cellular communication facility at a 4500 foot

[8] SCE has been told repeatedly since 2022 that the Sand Canyon Circuit serves Acton residents.

Figure 4. Sand Canyon Circuit Map Showing Locations of Weather Stations.



elevation (approximately) on a ridgeline surrounded by the Magic Mountain wilderness area. It appears that the only customer served by this power line off shoot is the communication facility itself and, as indicated in Figure 4, SCE has segmented it from the rest of the Sand Canyon circuit; SCE refers to it as "Segment 8". Weather Station "SE678" recorded a sustained wind speed of 44.55 mph and a wind gust of 67.95 mph at 6:50 AM on January 20, so the Council assumes that this is the wind measurement that is noted in Table 2 of SCE's Workbook. At 9:50 that same morning, this particular weather station recorded a sustained wind speed of 44.55 mph and a wind gust of 67.95 mph. These data indicate that it was certainly appropriate that SCE de-energize Segment 8 of the Sand Canyon circuit; however, there does not appear to be any justification for de-energizing other segments on the Sand Canyon Circuit. In fact, and insofar as the Council is able to discern, the only weather station that recorded wind data approaching (but not reaching) SCE's de-energization thresholds is "027SE" which, as indicated in Figure 4, is located on an offshoot power line that extends north into Long Canyon from the east side of the Sand Canyon circuit. This offshoot power line up Long Canyon serves the Briggs Road neighborhood of Agua Dulce and unfortunately, SCE has never bothered to sectionalize it from the rest of the Sand Canyon circuit. As a result, SCE routinely and improperly de-energizes the entire east half of the Sand Canyon circuit (including Acton residents in the Santa Clara River Valley) based on windspeeds measured by Weather Station No. SE678 located several miles away and far up a canyon. In other words, there is no apparent justification for SCE's de-energization of Acton residents on the Sand Canyon circuit during the January 17 PSPS event and had SCE properly implemented sectionalization, these shutoffs in Acton would have been avoided.

Conclusions Regarding SCE's Wind-Based Power Shutoff Decisions. As the information provided above demonstrates, virtually all of SCE's power shutoff decisions in Acton were unwarranted because wind data collected 12 hours before and 12 hours after each power shutoff event showed that wind speeds were well below SCE's claimed de-energization thresholds. The only exception is the de-energization of Segment 2 of the Pick circuit; however, SCE did not just de-energize Pick Segment 2 and instead de-energized all of the Pick and the Shovel circuits and much of the Bootlegger circuit. Furthermore, all of SCE's power shutoffs on the Shovel and Bootlegger circuits and most of the shutoffs on the Pick circuit were categorically unreasonable and therefore in violation of §§ 451 and 399.2(a) because they were all initiated before "strong winds" occurred that exceeded the 56 mph design basis for SCE's distribution system in Acton. This fact alone should compel the SED to recommend that the Commission conduct a "Reasonableness Review" of all of SCE's PSPS activities in Acton over the last 6 months.

SCE Has Failed To Properly Implement Sectionalization To Reduce The Scope And Extent Of PSPS Events

SCE is required to continually improve its efforts to reduce the scope and extent of PSPS events, and in particular, SCE is directed to implement sectionalization to reduce PSPS impacts[9]. In the 7 years that SCE has conducted PSPS events (specifically, 2019, 2020, 2021, 2022, 2023, 2024, and 2025) it has ***not*** successfully implemented sectionalization in Acton, and as a result, the entire community was needlessly de-energized on multiple occasions in the month of January, 2025. In addition to SCE's failure to sectionalize the Long Canyon offshoot of the Sand Canyon circuit described above, there are other sectionalization failures that the Council has noted.

For example, SCE has not sectionalized an entire neighborhood in Acton that has electrical service which is never affected by weather events because it is 100% underground from the Acton substation. The Council has pointed this out to SCE and to SED numerous times since SCE's first PSPS events in 2019; however, sectionalization has still not been performed.

SCE also failed to sectionalize a large residential area in Acton on Segment 5 of the Bootlegger circuit which experiences frequent and lengthy de-energizations based on *transmission system* wind measurements taken on top of transmission towers located high on ridgelines miles from homes where power is shutoff. Details on this concern were provided in comments submitted in response to SCE's January 2 PSPS Post Event Report; they will not be repeated and are instead incorporated herein by reference.

On March 17, 2025, SCE informed the Council that it has finally sectionalized a long offshoot of the Shovel circuit that only serves radio and communication towers located high on a remote ridgeline (at elevation 5,124 ft) and surrounded by an open space preserve. We appreciate this because SCE has frequently and inappropriately de-energized Acton residents based on wind speeds measured at this location. However, while we are grateful that this sectionalization was finally completed after the January 17 PSPS event, we must point out that it should have been done many years ago.

SCE FAILED TO INITIATE POWER SHUTOFFS ON TRANSMISSION CIRCUITS DURING DANGEROUS WIND CONDITIONS

The Community of Acton is designated as a Very High Fire Hazard Zone (VHFHSZ) by the Office of the State Fire Marshal. Acton is also traversed by 19 high voltage (220 kV and 500 kV) transmission lines; 16 of them are owned by SCE and the remainder are owned by the City of Los Angeles. In addition to forming the southern terminus of the

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9 Unofficial Compendium of Public Safety Power Shutoff (PSPS) Guidelines and Rules at 33.

Pacific AC intertie ("Path 26"), these transmission lines also serve as a primary source of electric power to urban Los Angeles County. Most of these lines are concentrated in the eastern portion of the community and in fact they are packed in so tightly together that they do not even comply with SCE's transmission standards[10]. Insofar as the Council is aware, the Community of Acton is the only VHFHSZ community in the entire State of California burdened with so many high voltage transmission lines that are so heavily concentrated that they violate accepted design standards.

The Council has tried to obtain information from SCE regarding the transmission facilities in Acton (age, design wind load, etc.); however, no such information has ever been provided. Aerial imagery indicates that many of these lines existed before 1959. As the Council understands the application of General Order 95 (GO 95), these transmission facilities are designated as either "Class E" or "Class H" supply circuits (depending on voltage - Section 20.6) that must be constructed and maintained as "Grade B" equipment (Section 42). These facilities are all above a 3,000 feet elevation; some are cylindrical towers while others are lattice structures constructed with galvanized steel members. For the cylindrical towers, GO 95 requires a minimum design wind load of 6 pounds per square foot (psf) while the lattice steel towers probably have a minimum design wind load of 10 psf (Section 43.1). Both have a Safety Factor of 1.25 (Table 4); thus, GO 95 requires the cylindrical towers to be constructed to withstand a wind load of 7.5 psf (equivalent to 54 mph[11]) and the lattice towers to be constructed to withstand 12.5 psf (equivalent to 69.9 mph). Additionally, GO 95 imposes design standards for transmission line conductors and hardware fixtures (conductor fastenings, pins, insulators, etc.); because they are typically rounded in shape, the council assumes that their base wind load design requirement is 6 psf (Section 43.1) and they have a design safety factor of 2 (Table 4). This suggests that transmission line conductors and hardware fixtures in Acton are constructed to withstand a minimum wind load of 12 psf or 68.5 mph.

However, GO 95 does not require transmission facilities to be replaced until their safety factors are reduced to less than two-thirds of the original safety factors set forth in Table 4 (Section 44.3). In other words, the *working* Safety Factor for the conductors and hardware fixtures on SCE's transmission facilities in Acton is only 1.33, and SCE is not required to replace such equipment until the Safety Factor drops below this value. Applying this 1.33 working Safety Factor to the 6 psf design standard yields an actual replacement wind load standard of 8 psf (or 56 mph) for transmission fixtures.

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[10] This fact came to light during hearings on the TRTP Project (Proceeding A.07-06-031).

[11] The conversion from psf to mph is an exponential function: $mph=(psf/.00256)^{1/2}$

SCE understood that the wind event which prompted its January 17 PSPS activities was projected to create winds greater than 70 mph and thus exceed all GO 95 design standards for transmission facilities in Acton. Yet, SCE made no arrangements to de-energize any of the transmission lines in Acton; this conclusion is drawn from SCE's January 17 PSPS Post Event Report which makes no mention of any activities that are necessary to prepare for transmission line de-energizations (such as coordinating with CAISO). This is particularly troubling to the Community of Acton because the high concentration of transmission lines on the east side of Acton ensures that any wildfire they spark during "Red Flag" conditions would quickly sweep west and engulf the entire community. Given these risks, and the magnitude of the winds that were projected to occur, the Council contends that SCE should have made some arrangement to de-energize the transmission lines in Acton during the January 17 PSPS event; SCE's failure to do so constitutes a substantial procedural deficiency.

To assess whether the Acton transmission lines should have been within the scope of SCE's January 17 PSPS event, the Council undertook an analysis of the weather conditions on the transmission circuits in Acton. Peak sustained wind speeds and peak wind gusts that were recorded during the January 17 PSPS event are provided in Table 4. These results demonstrate that transmission facilities in Acton experience significant high winds that substantially exceeded the 56 mph (8 psf) replacement standard imposed by GO 95 for transmission hardware fixtures (conductor fastenings, pins, insulators, etc.). At one transmission line location (weather station 555SE) a wind gust of 75.6 mph was recorded which substantially exceeds the 12 psf *construction* standard imposed by GO 95 for transmission hardware and fixtures. These wind incidents should have prompted SCE to at least consider de-energizing the transmission lines in Acton; however, it appears that SCE did not.

Table 4. Wind Measurements from Weather Stations on SCE Transmission Facilities.

			Peak Conditions throughout the January 17 PSPS event					
			Windspeed			Wind gust		
Weather Station ID		Time Frame	mph	Date	Time	mph	Date	Time
822SE	Arrastre Ridgeline	Jan 19 12:00 PM - Jan 26 7:00 PM	23.6	January 25	1300	40.9	January 25	1600
804SE	Julian's Ridge	Jan 19 12:00 PM - Jan 26 7:00 PM	50.1	January 23	1240	64.8	January 23	1130
764SE	Kentucky Springs ridgeline	Jan 19 12:00 PM - Jan 26 7:00 PM	34.7	January 20	1000	53.8	January 25	1450
756SE	Rough Road ridgeline	Jan 19 12:00 PM - Jan 26 7:00 PM	40.8	January 20	1540	54.6	January 20	1550
547SE	West Side AFH "Wolfie"	Jan 19 12:00 PM - Jan 26 7:00 PM	32.5	January 25	1450	55.7	January 25	1520
555SE	East Side AFH "N3"	Jan 19 12:00 PM - Jan 26 7:00 PM	43.9	January 23	2220	75.6	January 20	1000

The Council's concerns regarding the wildfire risk posed by SCE's transmission facilities are not unfounded particularly in regard to the oldest transmission facilities (some of which we believe are approaching 70 years of age). We are fully cognizant of the circumstances surrounding the Saddleridge fire in 2019 in which a 220 kV transmission

line that was constructed in 1970 (and is thus younger than transmission facilities in Acton) ignited a wildfire during "Red Flag" conditions. According to the Commission's Incident Investigation Report of the Saddleridge fire (provided in Attachment 1), the transmission towers were constructed in accordance with the applicable GO 95 wind load standard, but they were located in an area known to have wind loads that exceeded this standard (page 3). The Incident Report also noted that what triggered the wildfire was the failure of a fitting that held an insulator string in place and that the fitting showed significant corrosion and fatigue (page 4); the expected service life of the fitting was 100 years (page 4) but it obviously did not even make it to 50 years. A photograph in the report indicates that the corrosion occurred on the inside of the fitting and it appears that the deterioration was not visible from the outside (figure 5); this certainly suggests that visual inspections of transmission facilities may not be sufficient to identify structural deficiencies.

For reasons that are not clear, the Commission's Incident Report on the Saddleridge fire does not consider or report wind speeds; it merely states "there is no evidence to suggest that loading conditions were abnormal or in any way greater than the maximum working load multiplied by the applicable safety factor" (page 8). However, the "Fire Investigation Report" prepared by the City of Los Angeles Fire Department (LAFD) indicates that the Saddleridge Fire broke out during Red Flag conditions with winds in excess of 60 mph (See Attachment 2 at page 26). The Saddleridge fire killed one person, injured 8, threated 23,000 homes, and (to the combined information from the LAFD and Commission reports) it was the result of a transmission fixture on a 50 year old transmission tower that failed in weather conditions that included 60+ mph winds.

Many of the transmission facilities in Acton are much older than those involved in the Saddleridge fire; there are also a lot more of them (which substantially increases the risk they pose) and they are all packed together in the east side of the community where they will do the most damage if the ignite a wildfire in red flag conditions. SCE's weather data show that its transmission facilities experienced winds exceeding 75 mph which is substantially higher than the construction standards imposed by GO 95; yet, SCE never even considered de-energizing them. All of this is intrinsically unreasonable.

The Council understands that SCE is reluctant to de-energize transmission lines because doing so may create "significant customer impacts and reliability issues"[12]. However, the potential short term "customer impacts and reliability issues" resulting from transmission de-energization ***do not*** merit more consideration than the safety of Acton

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[12] Attachment B to SCE's January 17 PSPS Post Event Report *Quantitative And Qualitative Factors For PSPS Decision-Making* at 8.

and they certainly ***do not*** outweigh the lives of Acton residents. Accordingly, a full review of SCE's PSPS decision making process in relation to transmission facilities is warranted.

SCE'S NOTIFICATION FAILURES

SCE's January 17 PSPS Post Event Report reflects the fact that SCE continues to struggle with providing notifications in accordance with Commission Guidelines. Thousands of customers did not receive notifications before power shutoffs occurred and thousands did not receive notifications before power was restored. The latter is particularly unforgiveable because SCE has full control over the timing and extent of its re-energization activities and therefore has no excuse for failing to issue re-energization notices. Notification was a problem in Acton and when residents consulted SCE's website to check their circuit status, the information was often erroneous; it would show circuits were energized when they were not and vice versa. Some of the notification errors in Acton include:

- SCE notified the Council on January 20 at 9:41 PM that Bootlegger Segments 3, 4, 9 and 10 were shutoff but never sent an imminent (1-4 hour) shutoff notice.
- On January 21 at 5:04 PM, the Council received an email from a resident on the Shovel Circuit explaining that SCE's messaging is inconsistent. He said "I received an email at 12:24 pm today, Tuesday, January 21st stating, wind driven fire conditions could last through Tuesday. But their website states restoration will not happen until Thursday, January 23rd at 9:00 pm. The Weather Channel app on my phone shows wind speeds for Acton under 20 mph. After two days of no power and no fires, I want to come back to the 21st century."
- SCE sent a "Power Restoration Notice" for Shovel Segments 1, 2, 3, 4, and 5 on January 22, 2025 at 1:44 AM but SCE never sent any warning or notice that the re-energization was pending.
- SCE notified the Council on January 23 at 2:13 AM that Pick Segment 2 was shutoff but never sent an imminent (1-4 hour) shutoff notice. Furthermore, the "initial notice" that SCE sent on January 22 did not even identify the Pick circuit as being within the scope of the PSPS event.
- SCE notified us on January 23 at 11:14 AM that Bootlegger Segments 3, 9 and 10 were shutoff but never sent an imminent (1-4 hour) shutoff notice
- SCE notified us on January 23 at 11:14 AM that Bootlegger Segment 4 was shutoff but never sent an imminent (1-4 hour) shutoff notice.
- On January 23 at 2:29 PM, the Council received an email with multiple Facebook excerpts showing notification complaints by Acton residents on the Pick circuit.

- SCE sent a "Power Restoration Notice" for Pick Segments 1, 2, 3, 4, 5, and 6 on January 24, 2025 at 1:59 AM however portions of the Pick segment were re-energized several hours before this.
- SCE notified us on January 25 at 03:27 that Bootlegger Segments 5 and 6 were shutoff but this was more than 3 hours after they had already shutoff the power on Segments 5 and 6.
- SCE sent a power shutoff warning for Bootlegger Segment 7 on January 25 at 1:13 PM which was *unbelievable* because at the time, there was no wind on Segment 7 and the dewpoint depression was in the 20s. Therefore, it was mathematically impossible for the FPI to exceed 12. The Council emailed SCE and explained all of this and also explained that the de-energizations that SCE initiated 12 hours earlier were completely unnecessary because there had been only minimal winds. SCE replied that the information would be sent to the "PSPS decision-making team".
- SCE sent a PSPS notice on January 25 at 1:11 PM stating that there was an updated period of concern for Bootlegger Segments 1, 2, 3, 7, 8, 9, and 10, but it did not provide any time frame. It also said that Segment 5 was shutoff and that it was also expected to be shutoff. The ATC sent an email to SCE to point this out and to clarify that, according to the maps that SCE had provided, there is no Segment 10 on the Bootlegger circuit.
- The Council received an email on January 25 at 2:18 PM from a resident on the Shovel circuit expressing frustration that he had just received another shutoff warning from SCE even though there were no "fire conditions" because there were no winds and humidity levels were high and climbing.
- The Council received an email on January 25 at 3:19 PM from a resident on Shovel Segment 3 circuit stating that he received a notice that his power had been restored but he already had power for quite some time.
- SCE sent re-energization notices for circuit segments that it never reported as de-energized. For example, SCE sent a "Power Restoration Notice" for Bootlegger Segment 4 on January 26, 10:01 AM but no de-energization notice was ever issued for Segment 4 and SCE's website did not indicate that Segment 4 was de-energized.

This is SCE's 7th year of initiating PSPS activities (2019, 2020, 2021, 2022, 2023, 2024, and 2025); it should be much better at it by now.

OTHER PROBLEMS WITH SCE'S PSPS EVENT PERFORMANCE

The Council has noted several additional problems in SCE's January 17 PSPS event.

<u>The January 17 PSPS Event Was Far Too Long.</u>

As explained above, none of the power shutoffs initiated by SCE in Acton were warranted with the possible exception of what should have been a brief shutoff on Pick Segment 2 but which became very lengthy. The misery of SCE's unreasonable and inappropriately long PSPS event was perhaps most heavily felt by the residents on the

Bootlegger segment. By January 25, it was raining heavily along the Bootlegger circuit, and SCE sent an email to the Council stating that the Bootlegger PSPS had been cancelled. The problem is, power was still shutoff on Bootlegger and it remained off all night! In desperation, the Council sent an email to SCE on January 26, 10:18 AM explaining that the Bootlegger PSPS was not cancelled because Bootlegger power was still shutoff. The Council said "It is very cold here and it has been raining all night. I know that you probably think that hardly anyone is affected by this power shutoff because it is mostly in the Angeles National Forest, but a lot of Acton residents live in the Forest valley on the north side. SCE routinely cuts their power based on weather data collected at the top of a ridgeline many miles away. This is very wrong and the Acton Town Council tried to get SCE to address this with proper sectionalization in 2020 and 2021 but you ignored us. We intend to revisit this issue with SCE and it is one of the many things that we will to discuss with SCE staff once a meeting is scheduled." Nearly 5 hours later, SCE responded and said it has "routed the feedback below internally for future discussion with Acton". Power remained off. A desperate resident then reached out to the Council at approximately 4:30 PM and in response, the Council provided Bootlegger residents with SCE contact information. We understand that these SCE representatives quickly received numerous communications; one email that was forwarded to us stated "The residents of the Angeles Forest Highway area of Acton need to know when our power will be restored? We are on the Bootlegger Segment 7 [sic] PSPS shutoff. It has been over 24 hours and we have had rain and there is NO WIND. It is cold and we have NO POWER. We received a PSPs update at 7:15 am stating that the power will be restored within 8 hours. It has been over 8 hours. There is no one to call. All of us in this area have been severely affected by the frequent power shut offs this month". (NOTE: the power had actually been off for days; the 24 hour statement referred to how long it had been raining, not how long power had been off. Also, this resident mistakenly believed they are on Segment 7 but they are actually on Segment 5). Less than a half hour later, Bootlegger power was restored. Shortly afterwards, at 5:15 PM, a resident on the Bootlegger circuit emailed the Council and said "Makes us think someone forgot to turn a switch on…"

It must be pointed out that, as a rural community, the impacts of lengthy and frequent PSPS events on Acton residents are uniquely deleterious because most residents do not have municipal water service and rely solely on domestic wells. And, when they go without power for any length of time, their well pumps don't work and they run out of water. It is not advisable to use a generator to power a well pump because the wellheads are usually quite far from the home and are thus not easily monitored. When there is no water, there are no toilets or faucets and it becomes a challenge to meet basic hygiene

needs. One can fill tubs and containers with water to operate toilets, but that only works for so long. Also, heating is a real problem; this is particularly true in Acton where most residences are at elevations exceeding 3,000 feet and when temperatures in the Fall and Winter drop into the 20's. These PSPS impacts are in addition to urban-style problems (which Acton also has) such as traffic light outages that cause accidents, stores and gas stations not working, food spoilage, etc.

SCE Never Reports On The Adverse Impacts Of Its PSPS Events

SCE's PSPS events always create adverse impacts; yet, SCE never reports them. For example, SCE's January 17 PSPS event resulted in lengthy power outages along the four major highways in our community that are used by manty thousands of commuters every day (the Community of Acton lies between the Antelope Valley and the Greater Los Angeles area, so all the commuters that travel south from the Antelope Valley all pass through Acton; because our freeway is often heavily congested, commuters switch over to our major highways which then turn into narrow high speed freeways). On the Soledad Canyon Highway, SCE's PSPS event rendered a traffic signal inoperable; this created a very dangerous situation in which commuters traveling at speeds exceeding 70 mph did not stop. A terrible car accident was the result and a young resident was almost killed by a speeding commuter. What is particularly galling is that there was no justification for the power shutoff that affected the traffic signal, so an Acton resident was injured *for no good reason*.

Anecdotal Evidence Proves that SCE's Power Shutoffs in Acton were Unreasonable.

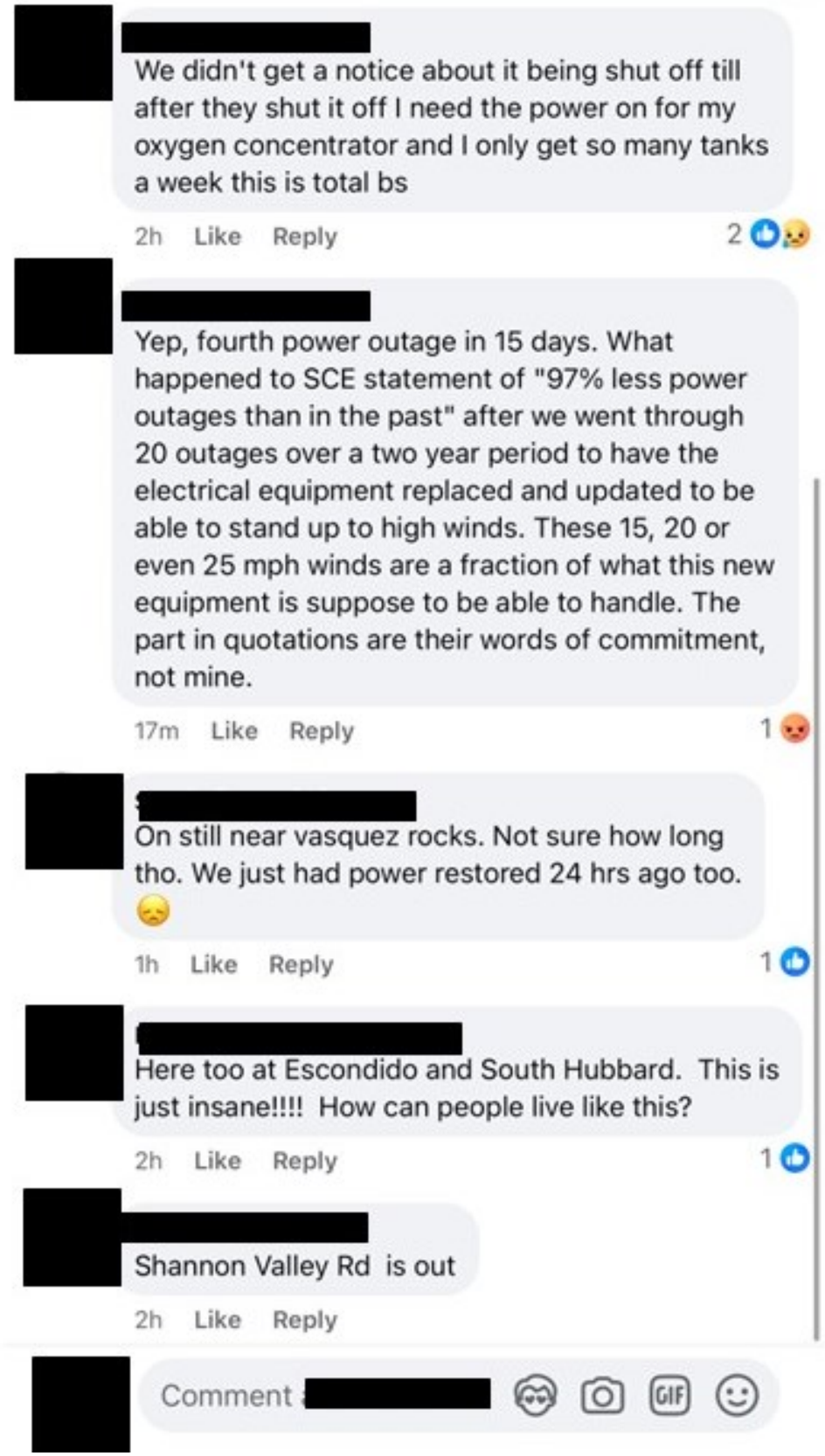
It is not just SCE's own weather station records that prove SCE's PSPS activities in Acton during the month of January were unnecessary; extensive anecdotal evidence also prove this fact. For example, an email sent to the Council on January 23 at 8:09 AM from a resident on the Shovel Circuit explains that his power was shutoff at approximately 2 AM but there was no wind and they have already gone without power for days for no apparent reason (this resident maintains a weather station at his home). He also provided Facebook posts by others stating the same thing; these are provided in Figure 5.

SCE's Post Event Report Affirms that SCE's De-Energization Decisions Did Not Comply with SCE PSPS Protocols or Commission Guidelines during the January 17 PSPS Event.

SCE states on page 40 of its January 17 Post Event Report that it "adjusted its operational protocols to initiate de-energization closer to thresholds and lessen impacts to customers". This statement is incorrect. A quick inspection of Table 2 of SCE's "PSPS Event Data Workbook" proves that, at the very beginning of this PSPS event, SCE initiated de-energization based on recorded wind measurements that were *far below*

Figure 5. Facebook Posts by Residents Affected by SCE's January 17 PSPS Event.

Figure 5 (continued). Facebook Posts by Residents Affected by SCE's January 17 PSPS Event.



de-energization thresholds and in doing so, SCE did not "decrease impacts to customers"; to the contrary, SCE ***increased*** impacts to customers by de-energizing them before it should have. For instance, the Shovel Circuit was one of the first circuits that SCE de-energized (at 9:19 AM on January 20) based on an alleged wind gust measurement of 52.2 mph *which is well below the 58 mph de-energization threshold*. The Council calls this an "alleged" wind reading because, as explained above, we could find no weather station on the Shovel circuit that recorded such a wind gust.

SCE's Post Event Report then states "However, conditions later worsened, and SCE adjusted its operational protocols to de-energize sooner prior to winds hitting circuit thresholds. As such, during this large and complex event, there were instances where circuits nearing de-energization criteria were proactively de-energized before fully meeting thresholds…" All of this is factually untrue. An inspection of Table 2 of SCE's "PSPS Event Data Workbook" reveals that more than half of the circuits were de-energized at windspeeds far below their "thresholds" and thus ***were not*** "nearing de-energization criteria" when they were shutoff; this persisted throughout the entire January 17 PSPS event. And, for the de-energized circuits that were equipped with covered conductor, all of it violated the Commissions Guidelines because, for covered conductor circuits, SCE is only authorized to shutoff power under §§ 451 and 399.2(a) when "strong winds" threaten to topple the lines[13]. The Commission has clarified that "strong winds" are those that "exceed the design basis" for electrical facilities [D.12-04-024 at 1 and reiterated by D.20-05-051 at 5]. In other words, SCE de-energized more than 100 circuits at windspeeds that were not "nearing" their de-energization criteria and therefore initiated power shutoffs under circumstances which did not constitute an "imminent and significant risk that strong winds will topple its power lines onto tinder dry vegetation or will cause major vegetation-related impacts"; therefore, these de-energization activities violated §§ 451 and 399.2(a).

Other comments in SCE's Post Event Report further demonstrate that SCE failed to follow its own PSPS protocols and therefore shutoff power when it was unreasonable to do so. For instance, page 40 states "SCE often makes these adjustments for large PSPS

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[13] In 2018, the Commission affirmed that a PSPS event can only be deemed "reasonable" and consistent with §§ 451 and 399.2(a) if it is initiated when a utility reasonably believes "there is an imminent and significant risk that strong winds will topple its power lines onto tinder dry vegetation or will cause major vegetation-related impacts on its facilities during periods of extreme fire hazard" (ESRB-8 at 4). However, circuits that are equipped with covered conductor are not susceptible to "major vegetation related impacts" because the covered conductor ensures that debris that hits the conductors does not cause a fault and ignite a fire. Therefore, the de-energization of circuits with covered conductor is only reasonable when there is a significant risk that strong winds will topple the line.

events, and they were necessary for all circuits due to the large event scope. These adjustments were aimed at prioritizing circuits based on specific risk factors, including wind speeds, gusts, fuel moisture levels and susceptibility to wind-related damage. By doing so, SCE assured that the most vulnerable areas were addressed, effectively mitigating wildfire risks and enhancing the overall response." This statement is tantamount to an open confession that SCE did not comply with its own PSPS protocols and instead "adjusted" its de-energization process based on vague and undocumented concerns pertaining to certain factors that were applied in a vague and undocumented manner to "prioritize" certain circuits for premature de-energization. Moreover, the whole premise that SCE used certain "risk factors" to "prioritize" certain circuits for premature de-energization is utter nonsense because all of the "risk factors" that SCE identifies are already accounted for (and thus imbedded in) SCE's PSPS protocols; accordingly, no "adjustments" were required. For instance, the FPI de-energization threshold established for each circuit is based on "Fuel moisture" (among other things) and the wind de-energization thresholds that are established for each circuit are based on wind speeds, gusts, and susceptibility to wind-related damage (among other things)[14]. Accordingly, SCE's explanation is insubstantial and erroneous.

Furthermore, SCE's claim that its "adjustments" prioritized circuits based on specific risk factors (wind speeds, gusts, fuel moisture levels and susceptibility to wind-related damage) is not supported by the facts presented in Table 2 of SCE's "PSPS Workbook" which clearly shows that SCE prematurely de-energized circuits that did not have these claimed "risk factors" because they:

- Were not susceptible to wind damage for the windspeeds at which they were shutoff (such as the Black Hills, Davenport, Pick, Mamba, Shovel, Bootlegger, Penstock, and Stubby, circuits which have the maximum possible windspeed thresholds of 40/58 and thus have high "circuit health ratings"); and
- Did not experience high wind speeds and gusts (more than half of the power shutoffs were initiated at low windspeeds including the Veterans circuit which SCE de-energized at a sustained windspeed of only 9 mph and a wind gust of only 20.5 mph); and
- Did not have high fuel moisture levels (such as the Blue Cut circuit which had an FPI value of only 11.2 when it was de-energized).

Simply put, the "word salad" that SCE offers to justify its unreasonable de-energization decisions is not even supported by the factual representations that SCE makes in its own PSPS Post Event Report.

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[14] These facts are clearly laid out in Attachment B of SCE's PSPS Post Event Report.

The Low De-Energization Thresholds Established for SCE's Distribution Circuits Suggests that SCE's Distribution Facilities Are In Poor Health.

A primary consideration in SCE's windspeed de-energization factors is "circuit health" which is a euphemism for the structural competency of SCE's facilities. GO 95 requires that SCE replace its cylindrical wooden distribution poles and crossarms when they are incapable of withstanding a 5 psf windload[15] (or 44.1 mph) at elevations exceeding 3,000 feet, and a 6.7 psf windload[16] (or 51.2 mph) at elevations less than 3,000 feet; it also requires the replacement of hardware/attachments/fixtures/conductors when these facilities are incapable of withstanding an 8 psf windload[17] (or 56 mph) at elevations exceeding 3,000 feet, and a 10.67 psf windload[18] (or 64.5 mph) at elevations less than 3,000 feet. Accordingly, it seems that all of SCE's distribution facilities should generally be capable of withstanding a minimum windload of at least 56 mph because anything less would appear to violate GO 95. Yet, more than 160 of the nearly 180 circuits that SCE de-energized during the January 17 PSPS event have de-energization thresholds that are ***less*** than 56 mph. This clearly suggests that "circuit health" (i.e. structural competency) is ***the*** principal cause of the broad scope and extent of SCE's PSPS events in January, 2025. Yet, and remarkably, SCE never discusses the "circuit health" factor in any PSPS Post Event Report, and it certainly does not explain or discuss why de-energization factors are so low for so many of SCE's distribution circuits.

These concerns are not mere speculation; to the contrary, the Council learned in 2021 that the only reason SCE de-energized the Shovel Circuit at windspeeds of 25 mph (sustained) and wind gusts of only 41 mph in 2019 and 2020 was because of mechanical deficiencies on the circuit. Specifically, in a discovery response to CalAdvocates, SCE stated that the low wind de-energization thresholds established for the Shovel circuit could not be increased until SCE confirmed "that key outstanding maintenance was completed and that the circuit was able to withstand [National Weather Service] Wind

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[15] This is derived from the 6 psf wind load design requirement imposed by Section 43.1 reconciled by the safety factor of 1.25 imposed by Section 44.1 that is reduced to 2/3 of this safety factor as required by Section 44.3.

[16] This is derived from the 8 psf wind load design requirement imposed by Section 43.2 reconciled by the safety factor of 1.25 imposed by Section 44.1 that is reduced to 2/3 of this safety factor as required by Section 44.3.

[17] This is derived from the 6 psf wind load design requirement imposed by Section 43.1 reconciled by the safety factor of 2 imposed by Section 44.1 that is reduced to 2/3 of this safety factor as required by Section 44.3.

[18] This is derived from the 8 psf wind load design requirement imposed by Section 43.2 reconciled by the safety factor of 2 imposed by Section 44.1 that is reduced to 2/3 of this safety factor as required by Section 44.3.

advisory level wind speeds without mechanical failure" [See Attachment 3]. This shocking admission that structural deficiencies are the primary driver for de-energizing customers at low windspeeds was pointed out to SED and the Commission in 2021[19], but nothing was done. Now, ***more than four years later***, SCE is continuing to de-energize tens of thousands of customers at inappropriately low windspeeds (as indicated in Table 2 of SCE's "PSPS Event Data Workbook"); if past is prologue, one must conclude that these low windspeed thresholds are driven by structural deficiencies on the circuits which, in and of itself, indicates violations of GO 95 wind load standards.

Concerns with SCE's PSPS Post Event Report

The Council notes a number of concerns with SCE's January 17 PSPS Post Event Report in addition to those identified above. For instance, the Post Event Report displays all the same deficiencies that the Council noted with SCE's January 2 PSPS Post Event Report (failure to discuss transmission facility decisionmaking and protocols, lack of granularity, using remote transmission facility wind data to de-energize distribution customers miles away, etc.)[20]; in the interest of brevity, these deficiencies will not be reported here and are instead incorporated herein by reference.

An additional concern relates to SCE's statements in Footnotes 6, 15, and 22 that SCE uses the term N/A for data pertaining to circuits that are "electrically connected to circuits in scope for potential de-energization." This vague explanation provides "cover" for SCE's failure to report data for long lengths of circuits and it also fails to clearly convey the truth; namely, that what SCE calls circuits which are "electrically connected to circuits in scope for potential de-energization" are in fact nothing more than sections of different circuits. For example, what SCE calls the "Loucks Circuit" in Agua Dulce is actually the western end of the Shovel Circuit that is energized in the heart of Acton, so it is not a distinct circuit at all. This fact is revealed in Figures 6 and 7 (which are circuit maps that SCE just provided to the Council): Figure 6 depicts the Shovel Circuit and Figure 7 depicts the "Loucks" circuit. Inspection of these figures reveals that the origin of Segment 1 on the east end of what SCE calls the "Loucks" circuit coincides with the termination of Segment 2 on the west end of the Shovel Circuit; together, they constitute a one very long circuit. In other words, Segments 1 and 2 of "Loucks" are actually extensions of the Shovel circuit; "Loucks" is merely a phantom circuit which should not be misrepresented it as an actual and distinct circuit.

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[19] *Acton Town Council Supplemental Comments On The 2021 Wildfire Mitigation Plan Updates Filed By The Large Investor Owned Utilities* filed in Proceeding R.18-10-007 On March 29, 2021.

[20] These deficiencies are enumerated on pages 26-28 of the letter sent March 18, 2025 with the subject caption *Acton Town Council Comments on the January 2, 2025 PSPS Post Event Report Filed by Southern California Edison.*

Figure 6. The Shovel Circuit

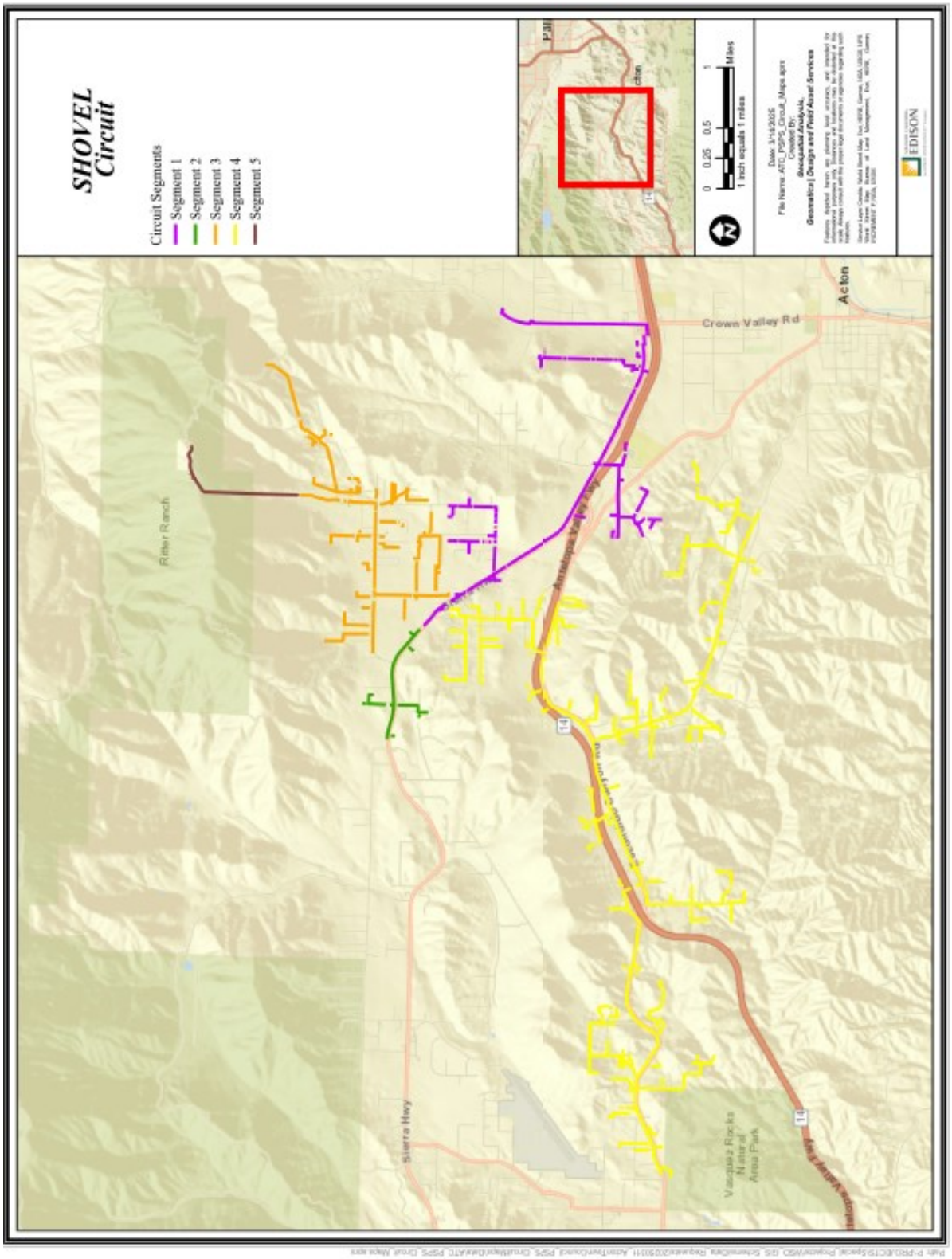
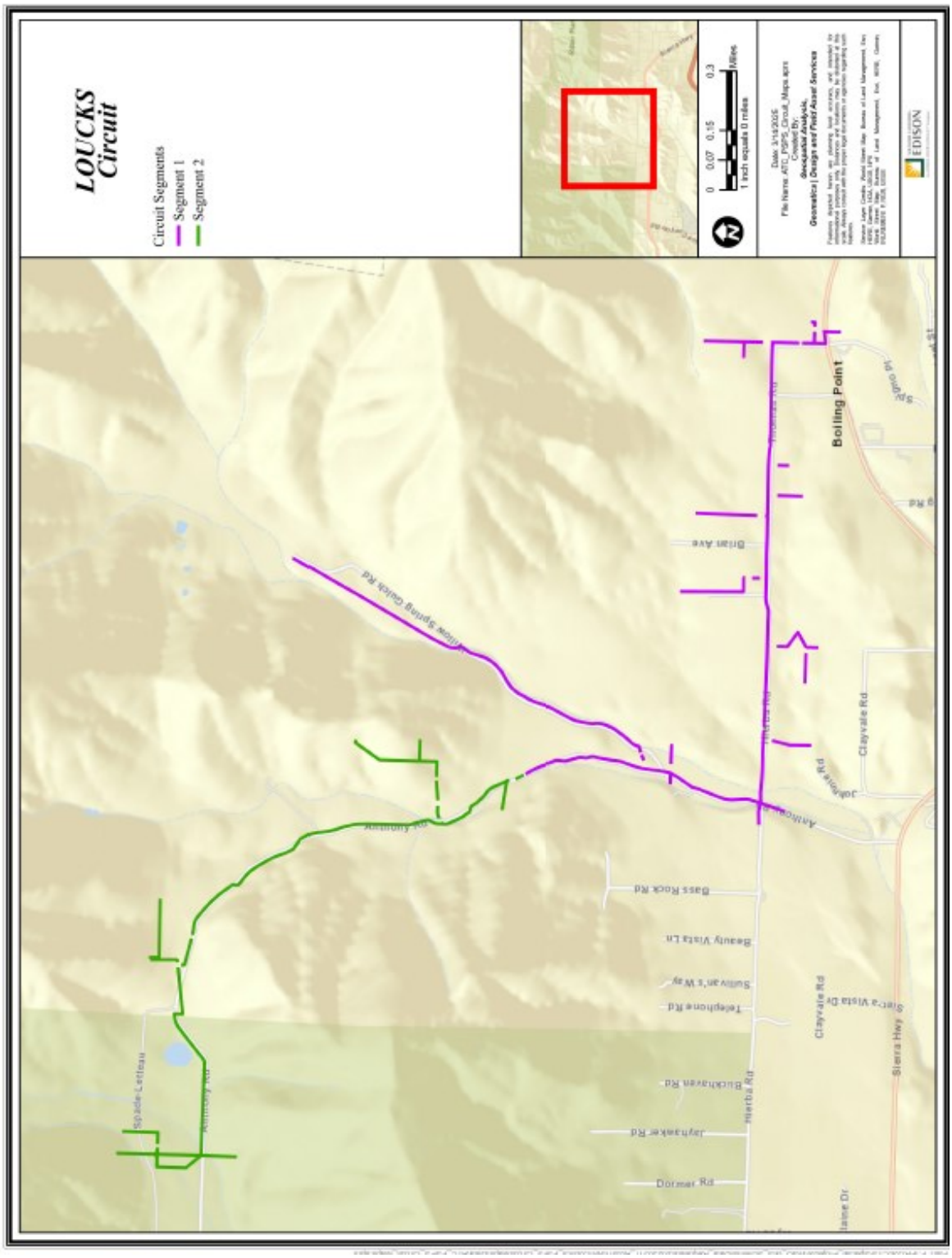


Figure 7. The "Loucks" Circuit



SCE's habit of misrepresenting a single circuit as two distinct circuits makes it impossible for residents who are served by the phantom circuits to understand why their power was shutoff. The phantom "Loucks" circuit again illustrates this point: for years, Agua Dulce residents on the "Loucks" could never understand why their power was constantly being shutoff during SCE PSPS events and SCE's Post Event Reports never shed any light on the matter because they consistently reported "N/A" in place of actual data for the "Loucks" circuit[21]. Additionally, SCE further muddied the waters in the case of the "Loucks" circuit because SCE consistently affiliates the "Loucks" circuit with the Davenport circuit[22] (which is energized by the Solemint distribution substation) rather than the Shovel circuit (which is energized by the Acton distribution substation); that is why many residents in Agua Dulce could never understand why the southern portion of the community always had power but the northern portion never had power during PSPS events in which there was no wind in Agua Dulce.

Another problem with SCE's misrepresentations regarding "phantom" circuits is that this practice conceals just how long and tenuous SCE's distribution networks really are. Specifically, the length of the Shovel circuit depicted in Figure 6 is only about 5.5 miles; however, when the Loucks facilities are factored in, the *actual* length of the Shovel circuit is nearly 10 miles. SCE should be directed to eliminate these phantom circuit labels and correct its distribution circuit maps to show the actual configurations of all sections of each circuit. Furthermore, and as we explained in detail in our comments on SCE's January 2 PSPS Post Event Report, SCE should be directed to individually report factors relevant to each energization decision made for each circuit segment throughout the entire PSPS event (even if the segment was de-energized multiple times) as well as identify the weather station that was relied upon for each de-energization decision made for each circuit segment. That is the only way that the Commission will have the information it requires to properly assess whether each de-energization decision made by each utility is "reasonable" and therefore authorized under §399.2 and §451 of the Code.

CONCLUSION

SCE'S January 17 PSPS event that affected all distribution circuits in Acton imposed considerable hardship on the Community and as explained in detail above, virtually none of it was warranted. Moreover, wind data collected from SCE's own weather

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[21] Section 2 of Attachment C of the *Southern California Edison Company's (U 338-E) Public Safety Power Shutoff Post-Event Report For November 4, 2024 De-Energization Event*.

[22] Id. See also Table 2 of Attachment B of SCE's "PSPS Event Data Workbook" filed for the January 17, 2025 PSPS event.

stations indicate that, on the ridgelines where transmission facilities are located, windspeeds were sufficiently high to warrant at least some consideration of de-energization, but SCE disregarded this concern. SCE's inclination to shutoff power on Acton distribution circuits without reason and thereby cause undue hardships on our community is bad enough, but when coupled with SCE's disinclination to even consider shutting off power on transmission lines that pose a substantial wildfire risk to Acton under wind conditions that exceed Commission standards is inexcusable. The Commission must find that SCE's PSPS activities beginning January 17 were unreasonable and its PSPS Post Event Report is deficient.

Note: The windspeed information that is referred to herein was too cumbersome to include in this report because it involves approximately 30 spreadsheets and each spreadsheet includes thousands of lines of data. ***However, this information can be provided upon request.***

Sincerely;

/S/ Jeremiah Owen
Jeremiah Owen, President
The Acton Town Council
ATC@ActonTownCouncil.org

ACTON TOWN COUNCIL
P.O.Box 810, Acton CA 93510

December 27, 2021

Director L. Palmer
Safety and Enforcement Division,
California Public Utilities Commission
505 Van Ness Avenue,
San Francisco, California, 94102
Electronic transmission of twenty four (24) pages to:
leslie.palmer@cpuc.ca.gov

Subject: The Acton Town Council Comments on the Southern California Edison's Post Event Report dated December 10, 2021.

Reference: SCE De-energization Events of November 24-26, 2021

Dear Director Palmer;

The Acton Town Council ("ATC") respectfully submits the following comments on the "Post-Event Report" ("Report") addressing the "Public Safety Power Shutoff" ("PSPS") event of November 24 to November 26, 2021 that was prepared by Southern California Edison ("SCE"). The 15-day deadline established by D.19-05-042 for submitting comments on this PSPS event fell on Saturday, December 25; accordingly, and consistent with Commission Rule 1.15, these comments are being submitted on the next business day and are thus deemed timely filed. These comments will also be distributed to those on the Service List for R.18-12-005.

The Acton Town Council only recently became aware of the fact that portions of Acton are served by the Sand Canyon circuit; specifically, the entire east half of Segment 7 of the Sand Canyon circuit lies in Acton and serves Acton residents. As a result of the lengthy PSPS power shutoff that SCE recently initiated on this circuit, many Acton residents did not have electrical service before, during, and after Thanksgiving Day. Because this PSPS event greatly affected Acton residents, the Acton Town Council reviewed SCE's PSPS Post Event Report that was served to stakeholders late in the evening on December 10, 2021, and we noted several significant problems. Our concerns are provided below in a sectionalized format to facilitate review by Commission staff.

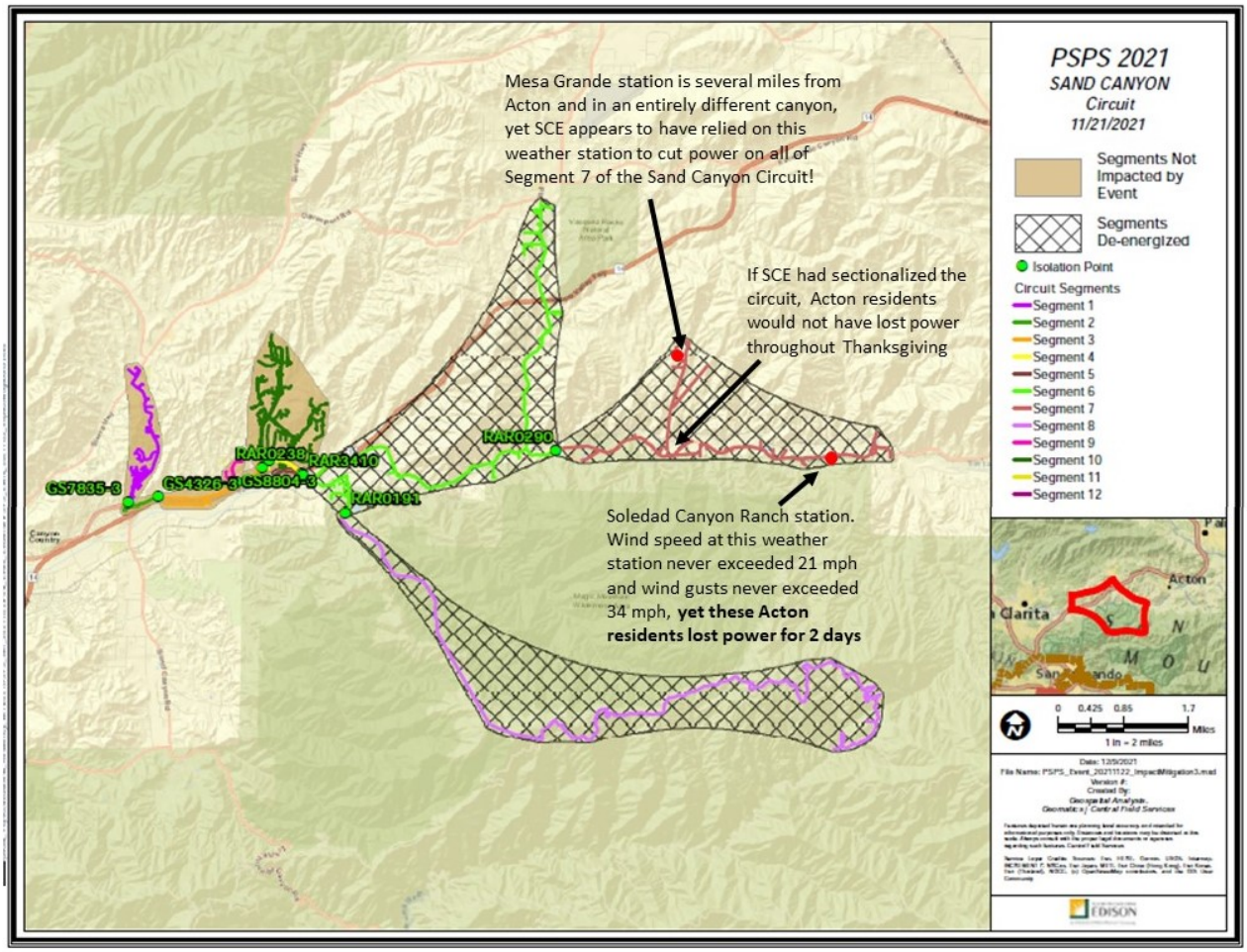
SCE's Post Event Report Fails to Accurately Describe PSPS Events Affecting Acton:
SCE's Post Event Report gives an inaccurate and arguably false description of the PSPS event experienced by Acton residents served by the Sand Canyon circuit. For instance, it states on page 36 that "On Wednesday night, November 24, (as discussed in Section 2.5) 428 customers on the Impala circuit were brought back online by a backup generator at 6:18 pm. Customers on the Sand Canyon, Energy, and Blackhills circuits (608 total) were restored to service around 8 pm". This is incorrect. Service to Acton residents on the Sand Canyon circuit was not restored until 2 days later on November 26. These Acton residents had no power either before, during, or after Thanksgiving Day.

SCE Did Not Utilize Sectionalization Effectively to Reduce PSPS Impacts in Acton
The ATC could find no reference to the weather station data that SCE relied upon to de-energize Acton residents before, during, and after the Thanksgiving holiday. Nonetheless, the ATC downloaded all the data from the weather station along the portion of Segment 7 of the Sand Canyon circuit that serves Acton (referred to as the "Soledad Canyon Ranch" station), and found that, for the entire 46-hour period during which Acton residents were de-energized over the Thanksgiving holiday, *sustained wind speeds never exceeded 20.6 mph* and *wind gusts never exceeded 33.5 mph* (see data provided in Attachment 1). In other words*, wind speeds on the portion of Segment 7 of the Sand Canyon circuit that serves Acton* ***never even approached*** SCE's PSPS thresholds at any time before, during, or after Thanksgiving yet our residents lost power for 2 days anyway. Notably, windspeeds of 27 mph were measured several miles northwest of Acton at the "Mesa Grande" station that is located in an entirely different canyon and is served by a branch off Segment 7 (see data provided in Attachment 2); however, this does not justify SCE's power shutoff to Acton residents because SCE should have segmented the Sand Canyon circuit at the branch point and thus only de-energized customers in the vicinity of the "Mesa Grande" station. This fact is shown more clearly in Figure 1 below, which reproduces the Sand Canyon circuit map provided on page 113 of SCE's post Event Report and shows where SCE should have deployed sectionalization to prevent Acton residents from losing power throughout the Thanksgiving holiday.

SCE Relies on Unreasonable Windspeed Thresholds to Initiate PSPS in Acton.
SCE continues to cut power in Acton based on unreasonably low windspeed thresholds; according to the "Event Data Workbook" spreadsheet that SCE submitted with its Post Event Report dated December 10, 2021, SCE denied power to Acton residents over the Thanksgiving holiday based on a sustained windspeed threshold of only 26 mph and a wind gust threshold of only 39 mph. As the ATC has repeatedly pointed out in numerous documents filed with the Commission[1], cutting power to customers at such

[1] "The Acton Town Council's Comments on the Proposed Decision Addressing the Late 2019 Public Safety Power Shutoff Events" filed May 10, 2021 in Proceeding I.19-11-013 at 6, 10. Application for Rehearing of Decision D.21-06-014 by the Acton Town Council submitted on July 7, 2021 at 10. See "The Acton Town Council Opening Comments on the Proposed Decision Adopting Phase 3 Revised (cont'd.)

Figure 1. SCE's Sand Canyon Circuit with Annotations Indicating Where Sectionalization Should Have Been Deployed.



low windspeed thresholds violates the reasonableness standard established by Commission Resolution ESRB-8 because such de-energization events are driven by structural deficiencies on SCE's distribution system rather than the presence of "strong

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and Additional Guidelines and Rules for Public Safety Power Shutoffs (Proactive De-Energizations) of Electric Facilities to Mitigate Wildfire Risk Caused by Utility Infrastructure" filed June 10, 2021 in Proceeding R.18-12-005 at 3, 5. See also "Application for Rehearing of Decision D.21-06-014 by The Acton Town Council" filed July 7, 2021 in Proceeding I.19-11-013 at 15-17, 22. See also ATC Supplemental Comments on 2021 Wildfire Mitigation Plan Updates submitted to the Commission March 29, 2021; see also all ATC comments on all SCE PSPS post-event reports filed in 2020 and 2021, particularly those dated March 1, 2021.

winds" [2]; this renders SCE's PSPS events *intrinsically and explicitly unreasonable*. SCE openly admits that its PSPS windspeed thresholds are driven by "circuit health" concerns (see page 10 of the December 10, 2021 Post Event report); SCE defines "circuit health" based on the number and extent of structural deficiencies existing on the circuit. Specifically, SCE's "circuit heath" factors are derived from the number of structures that are either "imminently about to fail" (referred to as "P1" structures) or will fail within 6 months (referred to as "High P2" structures)[3]. SCE also openly admits that it utilizes low windspeed thresholds on circuits that have "a history of local circuit outages at lower wind speeds" (see page 10 of the December 10, 2021 Post Event report). At the very least, this assertion proves that portions of SCE's distribution facilities are demonstrably incapable of reliable operation under moderate wind speeds and therefore violates Commission-adopted structural standards codified in General Order 95 ("GO95"). Equally important, the application of low windspeed thresholds to facilities that have "a history of local circuit outages at lower wind speeds" demonstrates that SCE prefers to simply de-energize its customers rather than maintain circuits in a manner that serves customers reliably. Finally, this statement is an open admission that at least some of SCE's equipment is neither constructed nor maintained to a standard that is sufficient to accommodate "known local conditions" as required by GO95[4] because if it were, there would be no "history of local circuit outages at lower wind speeds".

All of this demonstrates conclusively that SCE does not maintain its distribution equipment in compliance with adopted Commission orders; as a result, SCE's distribution equipment poses wildfire risks to Acton residents and others. Since 2019, SCE has reduced its exposure to the wildfire liability risk posed by its own deficient equipment by simply cutting power; in so doing, SCE has routinely increased

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[2] Resolution ESRB-8 establishes that a de-energization event is "reasonable" only if there is an imminent and significant and significant risk that "strong winds" will topple power lines or cause major vegetation related impacts [at 4]. The Commission has determined that electrical facilities which comply with General Order 95 ("GO-95") are capable of withstanding wind loads greater than 56 miles per hour (D.09-09-0309 and D.14-02-015), so winds less than 56 mph do not pose a "danger" of toppling power lines. Regarding the risk of "vegetation related impacts": The National Weather Service recognizes the "Beaufort" Scale which establishes winds must exceed 39 mph before twigs come off trees thus an "imminent and significant risk" of "major vegetation related impacts" does not exist when winds are below 40 mph. [https://www.weather.gov/mfl/beaufort],

[3] See page 5 of discovery response from SCE to the ATC dated March 23, 2021 that was provided to the Commission in Attachment 1 of the "Application for Rehearing of Decision D.21-06-014 by the Acton Town Council" filed July 7, 2021 in Proceeding I.19-11-013.

[4] Rule 31.1 of General Order 95 states (with emphasis added) "A supply or communications company is in compliance with this rule if it designs, constructs, and maintains a facility in accordance with the particulars specified in General Order 95, except that if an intended use or *known local conditions* require a higher standard than the particulars specified in General Order 95 to enable the furnishing of safe, proper, and adequate service, the company *shall follow the higher standard*.

public safety hazards significantly. These de-energization events have violated SCE's statutory obligation under the Public Utilities Code; specifically, §399.2 (which requires SCE to operate their distribution equipment in a safe and reliable manner) and §451 (which requires SCE to furnish and maintain adequate electrical service necessary to promote public safety). These de-energization events have also controverted the Commission's express directive that "Under no circumstances may the utilities employ de-energization solely as a means of reducing their own liability risk from utility-infrastructure wildfire ignitions"[5].

Despite the extensive evidence provided by the ATC to the Commission since 2019 which demonstrates that SCE equipment deficiencies violate Commission Orders, and despite its own statutory obligation under §2101 of the Public Utilities Code to enforce statutes affecting public utilities and see "that violations thereof are promptly prosecuted", the Commission has persistently declined to initiate any reasonableness reviews of SCE de-energization activities[6] *even though its own adopted decisions and directives require such reviews*[7]. This lack of Commission interest in enforcing its own standards and ensuring compliance with basic reliable electrical service requirements imposed by the Public Utilities Code is inexplicable. It is also astounding, given the scope of SCE distribution equipment deficiencies that were revealed in various Commission reports that were released just last month[8]. The Commission cannot stand by any longer; it has a statutory obligation to investigate the reasonableness of SCE's de-energization events and assess the extent to which these events violated §399.2 and §451 by denying customers safe and reliable power because they were initiated to mask equipment deficiencies and thereby avoid liability. The salient issue that the Commission has persistently failed to address is that SCE initiates PSPS events in Acton and elsewhere because its distribution equipment is deficient; this fact is demonstrated by SCE's persistent use of a 26 mph or less windspeed threshold for cutting power to Acton residents. Notably, it is not just the community of Acton that is saddled by these low windspeed thresholds; 20 of the circuits that were affected by SCE's PSPS event over

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5 D.19-05-042 at 68.

6 The Commission recently affirmed that it "has not to date undertaken a review of the reasonableness of a utility's decision to call a PSPS event" [D.21-06-034 at 23].

7 D.19-05-042 at 107. Also, ESRB-8 affirms the need to "assess the reasonableness of all electric IOU de-energization events in order to ensure that the power shut off is executed only as a last resort and for a good reason" [at 4]. Also, the Scoping Memo issued on August 3, 2020 in Proceeding I.19-11-013 affirms that the Commission's Safety Enforcement Division will "engage in a reasonableness review of all PSPS events" [page 5 at FN11].

8 See Commission investigation reports released November 2021 on the Liberty, Meyers, Rye, Thomas and Woolsey fires found here: https://www.cpuc.ca.gov/industries-and-topics/wildfires/wildfires-staff-investigations.

the Thanksgiving holiday have windspeed thresholds of 26 mph or less[9]. And, as the ATC has previously pointed out, nearly 50 of SCE's distribution circuits have sustained windspeed thresholds less than 31 mph[10].

Finally, it must be clarified that *the ATC does not object* to cutting power on structurally deficient equipment to prevent wildfire ignitions; to the contrary, de-energization under such circumstances is critical to protecting live and property. If SCE had de-energized its equipment in a timely manner, the Thomas, Woolsey, Rye, Meyers, and Liberty conflagrations may have been avoided. Similarly, the Kincade, Zogg, and Camp fires could perhaps have also been avoided if PGE had de-energized its equipment. What concerns the ATC is that every de-energization event that SCE initiates to avoid wildfire ignitions on substandard or structurally deficient equipment constitutes a failure to operate distribution equipment in a safe and reliable manner and is therefore a direct violation of §399.2 of the Public Utilities Code. This is because SCE sacrifices reliability for safety if it de-energizes a distribution circuit when deficiencies on the circuit pose a wildfire risk. Additionally, every de-energization event poses a substantial public safety risk[11]; thus, every time SCE cuts power to prevent wildfire ignitions on deficient or substandard equipment, it violates §451 by failing to maintain adequate electrical service necessary to promote public safety. *What the ATC does object to* is that SCE is never held accountable for these violations. More specifically, the ATC objects to the manner in which SCE continually violates Public Utility Code provisions pertaining to public safety and electrical reliability; we further object to the Commission's abject refusal to conduct "reasonableness reviews" of SCE's PSPS events and thereby investigate these violations. SCE's actions can perhaps be accounted for by the fact that, as a corporation, it avoids the destruction and attendant liability of a wildfire sparked by deficient equipment by simply cutting power at low windspeeds. However, the Commission's persistent refusal to conduct any "reasonableness reviews" of the numerous and extensive PSPS events that have occurred over the last three wildfire seasons cannot be accounted for, particularly in light of its prior commitment to "assess the reasonableness of all electric IOU de-energization events in order to ensure that the power shut off is executed only as a last resort and for a good reason"[12]. Furthermore, the Commission's willful abrogation of its statutory duty under the Public Utilities Code to promptly prosecute violations of statutes affecting public utilities is bizarre and unfathomable. The Commission's inaction has substantially undermined public

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9 See the "Event Data Workbook" spreadsheet that SCE submitted with its PSPS Post Event Report filed December 10, 2021 [Tab T03].

10 Application for Rehearing of Decision D.21-06-014 by the Acton Town Council submitted on July 7, 2021 at A2-3.

11 D.09-09-030 at 30-40.

12 Resolution ESRB-8 at 4.

safety[13] and contemporaneously served the interests of utilities like SCE because it permits them to sidestep their obligation to provide safe and reliable power and maintain adequate electrical service to promote public safety; it bears all the hallmarks of "regulatory capture"[14]. The Commission must shake off the deference that it has shown and continues to show to SCE and other utilities and begin to act in the interest of the public by conducting reasonableness reviews of PSPS events and holding utilities accountable when they violate the Public Utilities Code by shutting off power to mask equipment deficiencies and thereby protect themselves from liability.

SCE Fails to Identify and Weigh the Public Safety Risks Posed by its PSPS Events.
The Commission has repeatedly ordered utilities like SCE to include in every PSPS Post Event Report an "explanation of how the utility determined that the benefit of de-energization outweighed potential public safety risks"[15]; these orders were driven by the utility's statutory obligation under Public Utilities Code §451 to promote the safety of their customers. The public safety risks that SCE is supposed to consider were carefully laid out in D.09-09-030 and include, but are not limited to: wildfire risks due to the widescale use of generators, barbeques, camp stoves, candles, and lanterns; disruption in communication networks; loss of customer communication access; disruption to emergency communication and evacuation procedures; endangering customers with disabilities, adversely impacting schools, adversely impacting water supply to fight fires and serve domestic needs, impairment of traffic control measures, and diversion of public safety personnel. Notably, every one of these adverse impacts occurred as a result of SCE's PSPS activities in 2019 (as the ATC pointed out in all of our filings submitted in Proceeding I.19-11-013). Instead of addressing these risks and showing that they were outweighed by a discernible public safety benefit, SCE's December 10 2021 Post Event Report contrives something called a "PSPS Risk" that is based on unidentified studies and undisclosed information pertaining to the "2003 Northeast Blackout" and the "2011 Southwest Blackout" addressing consequences from "food spoilage" and "underlying health conditions" in terms of "fatalities and serious injuries per customer minutes interrupted". Notably, the "2011 Southwest Blackout lasted only 13 hours, and the 2003 Northeast Blackout was largely resolved within 14 hours; neither of these events provide any indication of the real public safety risks that result from multiple days without power (which are so common in SCE PSPS events). The Commission is aware that the public safety risks posed by PSPS events are not linear

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[13] By failing to hold utilities accountable for unreasonable power shutoffs, the Commission permits such activities to persist unfettered and thereby directly and substantially contributes to increased public safety risks.

[14] Regulatory Capture is evidenced by a body of commission actions or inactions where "what the regulated entity wants has more influence than what the public interest requires." Scott Hempling, *"Regulatory Capture: Sources and Solutions"; EMORY LAW CORPORATE GOVERNANCE & ACCOUNTABILITY REVIEW. 25 (2014).*

[15] D.19-05-042 at 108; D.21-06-014 at 49; D.21-06-034 at 23.

with time; risks increase substantially with every incremental hour of power shutoff because people become more desperate[16] . However, none of this is accounted for in SCE's "PSPS Risk". Moreover, SCE claims that its "PSPS Risk" value is informed by Post Event Reports submitted by investor-owned utilities in 2019, but provides no corroborating information. In fact, the risk parameters that SCE used are not quantified anywhere in the report and the formula that SCE contrived to derive the infinitesimally small "PSPS Risk" that it claims for each circuit is not even disclosed in the spreadsheet that was filed with its Post Event Report[17]. In other words, the Commission has insufficient information to conclude that SCE did in fact comply with Commission directive and "weigh" the actual and material public safety risks posed by its PSPS events before cutting power over the Thanksgiving holiday. And, given the widespread public safety risks that materially resulted from SCE's previous PSPS events, it is a certainty that the infinitesimally small public safety risk that SCE claims was posed by its November 24-26 power shutoff event is absurdly underpredicted.

SCE's December 10, 2021 Post Event Report also presents something called a "Wildfire Risk" parameter that appears to be an amalgamation of a projected wildfire "footprint" (i.e., the size a fire could become if it were to ignite) and the number of structures and residents that would be affected within that footprint. SCE then factors in an estimated number of fatalities and injuries that could result if such a wildfire were to occur; this value is then normalized to derive a number which is less than 1 and represents fatalities and injuries that will result if a wildfire were ignited in the vicinity of a particular circuit. Unfortunately, SCE's "wildfire risk" is substantially over predictive for a number of reasons, not the least of which is that it presumes no firefighting resources are deployed to combat the wildfire that is assumed to occur; the wildfire is assumed to rage unabated for 24 hours without any fire suppression or structure protection activities. Moreover, SCE's "wildfire risk" parameter does not factor in the risk that an ignition event will even occur; instead, SCE just assumes that a wildfire is ignited on every circuit. As a result of these and other assumptions, SCE's "wildfire risk" model substantially overstates the "benefits" that are derived from its PSPS events; the extent to which these "benefits" are grossly overstated is revealed by putting SCE's "wildfire risk" model in proper context. For instance, SCE projects the "wildfire risk" posed by the "Stubby" circuit during a single 24-hour wind event is 0.2362[18]; mathematically speaking, this

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16 As the ATC has previously pointed out, customer behavior becomes more risky as the length of time they were without power increases. For instance, we have informed the Commission that an Acton resident reported seeing a person at a local gas station who was so desperate for fuel to operate their generator during a lengthy SCE PSPS event that they were pumping gasoline into all sorts of containers, including a glass jar. [Comments on the Safety and Enforcement Division's "Public Report on The Late 2019 Public Safety Power Shutoff Events" From the Acton Town Council (FN 12)].

17 See "Event Data Workbook" spreadsheet that SCE submitted with its Post Event Report dated December 10, 2021 (tab T04).

18 Ibid.

means that an injury or fatality is projected to result from a wildfire ignition on the "Stubby" circuit once every four years if it experiences one wind event per year. If the "Stubby" circuit experiences four wind events per year, then SCE's model predicts that a wildfire-related injury or fatality will occur once per year. Such projections are completely insupportable by historical evidence; the "Stubby" circuit has existed for decades, and insofar as the ATC is aware, no injury or fatality ever resulted from a catastrophic ignition on the "Stubby" circuit during a wind event prior to 2019 (when PSPS events became commonplace). As another example, consider the "Sand Canyon" circuit that serves Acton residents and was de-energized by SCE due to "high winds" at least 4 times in 2020 and 4 times in 2021: SCE projects the "wildfire risk" posed by the "Sand Canyon " circuit during a single 24-hour wind event is 0.0703[19]; mathematically speaking, this means that an injury or fatality is projected to result from a wildfire ignition on the "Sand Canon " circuit approximately once every three years if it experiences four wind event per year. This risk projection is absurdly over-predictive: the Sand Canyon circuit dates back to the middle of the last century and it experiences frequent wind events every year; yet, insofar as the ATC is aware, it has never caused any wildfire ignitions that resulted in any injuries or fatalities.

Another reason SCE's PSPS risk/wildfire risk model is so erroneous is because it considers each de-energized circuit individually and fails to consider the cumulative impacts of cutting power on multiple circuits in a large area. As the ATC has previously pointed out, SCE's PSPS events cut power from Palmdale to Santa Clarita, and affect an area that is more than 200 square miles; the cumulative disruptions and attendant public safety risks posed by such widespread power shutoffs is completely ignored by SCE's risk methodology.

SCE's "wildfire risk" values are so over-predictive and its "PSPS Risk" values are so under-predictive that they do not represent anything real and they are certainly not consistent with historical data. For instance, the Commission is aware that SCE's PSPS events in 2019 resulted in wildfires that forced the evacuation of tens of thousands of people, burned thousands of acres and numerous structures, prevented wildfire suppression, impeded access and egress, prevented emergency evacuation orders from being received, and caused numerous injuries[20]. Based on this evidence, it is certain that PSPS events pose substantial public safety risks that are at least on par with the public safety risks they are intended to prevent; yet, SCE's model contrives completely opposite results which conclude that risks posed by any PSPS is several orders of magnitude less than risks posed by a utility-ignited wildfire. Nothing could be further from the truth, and the magnitude of errors that are imbedded in SCE's model is

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[19] Ibid.

[20] See ATC comments submitted to the Commission in Proceeding I.19-05-042, R18-12-005, and R.18-10-007. See also personal experiences relayed by Acton residents to SCE on November 4, 2019 found here: https://www.youtube.com/watch?v=Qg9cJJZ61Mk&t=2101s .

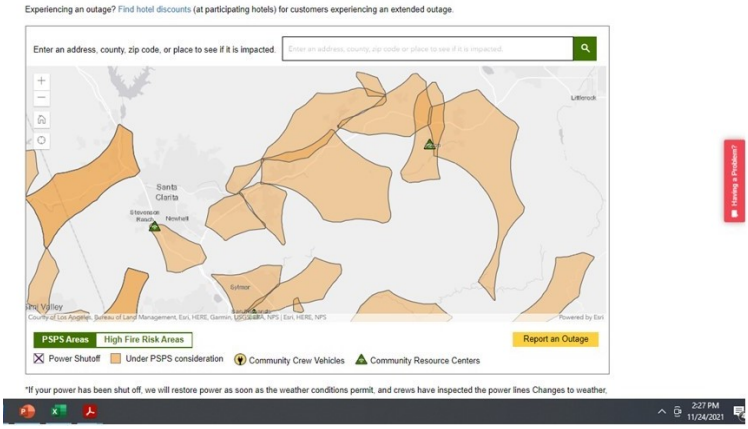
revealed through a simple comparison of SCE's claimed "PSPS Risks" to SCE's claimed "Wildfire risks". For instance, consider the "Acosta" circuit that serves approximately 3,800 people and which was de-energized for nearly 48 hours over the Thanksgiving holiday: according to page 15 of SCE's Post Event Report, cutting power on the "Acosta" circuit on Thanksgiving eliminated the risk of 213 wildfire-related injuries/fatalities compared to the risk of a single injury/fatality posed by the PSPS event itself. It is certainly likely that a 48-hour PSPS event on the "Acosta" circuit would result in at least one injury or fatality (if not more). However, it is absurdly implausible to conclude that an ignition on the Acosta circuit is likely to result in 213 fatalities/injuries (which is more fatalities/injuries than have occurred in recent wildfire events). In other words, SCE's model is so grossly over-predictive of the wildfire risk posed by its circuits, and it is so grossly under-predictive of the very real and demonstrably significant public safety risks that were created by its PSPS events over the Thanksgiving holiday that SCE's Post Event Report does not comply with the Commission directive that SCE demonstrate that PSPS risks were outweighed by clearly quantified benefits. Accordingly, SCE has failed to demonstrate that it complied with its statutory mandate under Pub. Util. Code § 451 to furnish and maintain adequate electrical service necessary to promote public safety; accordingly, the Commission must censure SCE for its most recent PSPS event.

SCE's Notification Process Continues to be Substandard and Deficient.

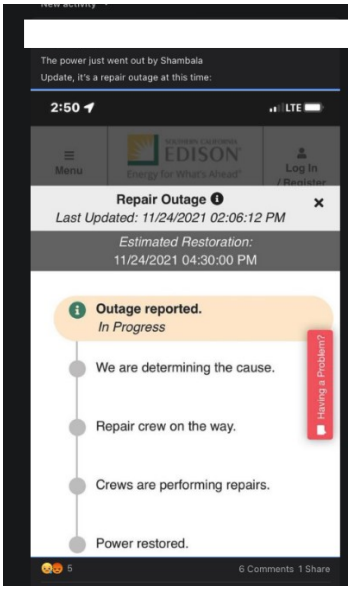
SCE's Post Event Report dated December 10, 2021 states that more than 30,000 customers did not receive a "1- to 4-hour imminent notification" and more than 3,500 entities did not receive any notification before de-energization. SCE also reports that more than 3,000 customers did not receive any notification before re-energization. These numbers are abysmal. The ATC is particularly concerned about the failure to notify customers before re-energization because of the risk to life and property that such failures create; customers who rely on generators must be notified in advance before re-energization occurs so that they can disconnect their generator before power is restored. This is important; generators that are operated without a transfer switch pose a significant fire danger if they are still operating when system power is restored. It is noted that generators are not supposed to be operated without a transfer switch, however it is naively unrealistic to assume that all of SCE's customers have the knowledge and expertise to properly configure and connect their generator.

The ATC also notes that SCE's Post Event Report dated December 10, 2021 fails to disclose the abysmal notification process that Acton residents experienced. On November 24 at approximately 2:15, power was cut in southwest Acton; SCE's website was accessed by an Acton resident, but it showed that there were no de-energization activities anywhere in the area. The following is a screenshot of the text trail:

The SCE website was accessed at 2:27; it showed no PSPS activities in or near Acton:



By 2:50, SCE reported the power shutoff in Acton as a "repair"; here is the screenshot:



The power remained off for 2 days.

Conclusion

Naturally, Acton residents are grateful that SCE's multiday power shutoff over the 2021 Thanksgiving holiday was not as widespread in our community as its power shutoff event during the 2020 Thanksgiving holiday. However, the very fact that our residents are grateful to SCE for not cutting their power and ruining their Thanksgiving *is extremely troubling*, and it warrants Commission action. Utility customers are not supposed to be grateful when a utility deigns to sell them power; this is particularly true in rural communities like Acton where individual property owners are forced to pay enormous developer fees to SCE for extending distribution facilities to provide electrical service to their properties. Customers should expect reliable electrical service and the Commission has a statutory obligation to do everything in its power to see that such customer expectations are met; however, this is not the case today. Since 2019, SCE has routinely cut power to customers and thereby endangered lives and property because of inexcusable infrastructure deficiencies, and it does so with impunity because the Commission refuses to assess the reasonableness of SCE's de-energization decisions. The magnitude of the Commission's commitment to not enforce the Public Utilities Code and compel SCE to provide reliable electricity was recently revealed in D.21-06-014 which concluded that no deterrence measures were warranted even though SCE and other utilities extensively violated Public Utilities Code §451 when they initiated PSPS events in 2019. Worse yet, D.21-06-014 provides financial incentives to utilities for simply improving their conduct in PSPS events[21]; it does not even try to compel compliance – it merely hopes that improvements will happen. By "incentivizing" compliance rather than enforcing it, D.21-06-014 turns the Commission's entire enforcement program on its head and lets utilities choose whether they will comply with the Public Utilities Code, and if so, the extent to which they will comply. Because of the appalling deference that the Commission has persistently shown to SCE since the Fall of 2019, Acton residents are now in the untenable position of being grateful when their power is ***not*** cut off. The absurd situation created by the Commission's failure to hold utilities accountable flies in the face of the entire legislative intent behind the Public Utilities Code which affirms "Reliable electric service is of utmost importance to the safety, health, and welfare of the state's citizenry and economy"[22].

The Commission now has a fresh opportunity to rectify its previous errors and hold utilities accountable by conducting a "reasonableness review" of SCE's most recent PSPS event. As we have shown above, there is nothing "reasonable" in a 25 mph or less windspeed threshold or a 39 mph or less wind gust threshold or the continued existence of infrastructure that has "a history of local circuit outages at lower wind speeds"; these circumstances violate General Order 95 because they are driven by either structural deficiencies or infrastructure that is not configured to accommodate local conditions. What makes the power shutoff that occurred in Acton over the Thanksgiving holiday

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[21] D.21-06-014 at 60 and Conclusion of Law #16.

[22] §330 of the Public Utilities Code.

even more unreasonable is that wind levels on the Acton portion of the Sand Canyon circuit never even exceeded SCE's paltry thresholds, and had SCE had just sectionalized the Briggs Road portion of Segment 7 of the Sand Canyon circuit, our residents on Segment 7 would have lost power for just a few hours the night before Thanksgiving and then been re-energized at the same time that Segment 6 was re-energized. Instead, Acton residents lost power for two days. This, coupled with the fact that SCE did not properly consider the documented public safety risks posed by the power shutoff initiated over Thanksgiving holiday and the fact that it grossly overstated the wildfire risk that its power shutoff avoided, renders the entire PSPS event completely unreasonable. Given these factors, a "reasonableness review" of SCE's most recent PSPS event by the Commission is warranted.

Respectfully submitted;

/s/ Jacqueline Ayer
Jacqueline Ayer
On behalf of The Acton Town Council

December 27, 2021

Attachment 1

Weather Data from SCE's "Soledad Canyon Ranch" Weather Station in Southwest Acton.

SCE SOLEDAD CANYON RANCH WEATHER STATION IN SOUTHWEST ACTON

The provisional data available here are intended for diverse user applications.

For data req review the information

available from the NCEI (https://www.ncdc.noaa.gov/customer-support/certification-data)

or consult a CCM (http://www.nicm.org).

STATION: SE677

STATION NAME: SCE Soledad Canyon Ranch

LATITUDE: 34.43807 — Max sustained winds: 20.56 Occurred on November 25 at 12:50 PM

LONGITUDE: -118.26327 — Max wind gusts: 33.46 Occurred on November 25 at 12:40 PM

ELEVATION [ft]: 2265

STATE: CA

				Temp	RH	wind speed		wind gust		dew point
Station_ID	UTC time	Local Time		° F	%	knots	mph	knots	mph	° F
SE677	2021-11-24T20:00:00Z	12:00	PM	62.17	15.39	12.52	14.41	22.85	26.3	14.46
SE677	2021-11-24T20:10:00Z	12:10	PM	61.86	15.51	13.23	15.22	25.97	29.89	14.38
SE677	2021-11-24T20:20:00Z	12:20	PM	62.43	15.42	13.42	15.44	25.21	29.01	14.71
SE677	2021-11-24T20:30:00Z	12:30	PM	62.8	15.47	10.5	12.08	22.92	26.38	15.09
SE677	2021-11-24T20:40:00Z	12:40	PM	62.9	15.35	11.48	13.21	25.78	29.67	14.99
SE677	2021-11-24T20:50:00Z	12:50	PM	63.09	15.03	11.75	13.52	20.57	23.67	14.67
SE677	2021-11-24T21:00:00Z	1:00	PM	62.87	14.94	11.53	13.27	19.11	21.99	14.35
SE677	2021-11-24T21:10:00Z	1:10	PM	63.17	14.74	10.5	12.08	23.49	27.03	14.29
SE677	2021-11-24T21:20:00Z	1:20	PM	63.69	14.45	9.1	10.47	17.14	19.72	14.26
SE677	2021-11-24T21:30:00Z	1:30	PM	63.76	14.12	8.95	10.3	17.14	19.72	13.8
SE677	2021-11-24T21:40:00Z	1:40	PM	63.71	13.87	12.28	14.13	22.22	25.57	13.35
SE677	2021-11-24T21:50:00Z	1:50	PM	63.72	13.73	13.38	15.4	20.76	23.89	13.13
SE677	2021-11-24T22:00:00Z	2:00	PM	63.8	13.5	14.03	16.15	24.51	28.21	12.82
SE677	2021-11-24T22:10:00Z	2:10	PM	63.8	13.14	14.38	16.55	23.62	27.18	12.22
SE677	2021-11-24T22:20:00Z	2:20	PM	63.52	13.13	15.51	17.85	28.82	33.17	11.97
SE677	2021-11-24T22:30:00Z	2:30	PM	63.51	13.01	15.22	17.51	23.31	26.82	11.76
SE677	2021-11-24T22:40:00Z	2:40	PM	63.66	12.79	13.41	15.43	25.71	29.59	11.5
SE677	2021-11-24T22:50:00Z	2:50	PM	63.28	12.61	15.21	17.5	25.78	29.67	10.89
SE677	2021-11-24T23:00:00Z	3:00	PM	63.32	12.41	14.95	17.2	26.16	30.1	10.56
SE677	2021-11-24T23:10:00Z	3:10	PM	63.41	12.39	12.73	14.65	23.31	26.82	10.6
SE677	2021-11-24T23:20:00Z	3:20	PM	63.21	12.53	13.76	15.83	23.24	26.74	10.69
SE677	2021-11-24T23:30:00Z	3:30	PM	63.01	12.73	12.24	14.09	20.95	24.11	10.88
SE677	2021-11-24T23:40:00Z	3:40	PM	62.77	12.34	13.93	16.03	20.76	23.89	10
SE677	2021-11-24T23:50:00Z	3:50	PM	62.41	12.15	13.82	15.9	22.48	25.87	9.37
SE677	2021-11-25T00:00:00Z	4:00	PM	61.96	12.18	10.52	12.11	19.3	22.21	9.07
SE677	2021-11-25T00:10:00Z	4:10	PM	61.45	12.16	7.32	8.42	13.65	15.71	8.63
SE677	2021-11-25T00:20:00Z	4:20	PM	60.84	12.42	5.22	6.01	9.52	10.96	8.61
SE677	2021-11-25T00:30:00Z	4:30	PM	60.49	12.71	6.34	7.3	14.16	16.3	8.84
SE677	2021-11-25T00:40:00Z	4:40	PM	60.16	13.03	5.35	6.16	11.75	13.52	9.12
SE677	2021-11-25T00:50:00Z	4:50	PM	59.67	13.28	6.97	8.02	16.7	19.22	9.15
SE677	2021-11-25T01:00:00Z	5:00	PM	58.54	13.83	3.34	3.84	7.43	8.55	9.14
SE677	2021-11-25T01:10:00Z	5:10	PM	57.97	14.3	3.59	4.13	7.11	8.18	9.42
SE677	2021-11-25T01:20:00Z	5:20	PM	58.45	14.2	6.81	7.84	12.25	14.1	9.65
SE677	2021-11-25T01:30:00Z	5:30	PM	58.14	14.34	3.93	4.52	6.86	7.89	9.62
SE677	2021-11-25T01:40:00Z	5:40	PM	56.99	14.91	2.72	3.13	4.89	5.63	9.55
SE677	2021-11-25T01:50:00Z	5:50	PM	56.59	14.62	5.34	6.15	13.02	14.98	8.79
SE677	2021-11-25T02:00:00Z	6:00	PM	57	13.84	4.54	5.22	9.65	11.11	7.92
SE677	2021-11-25T02:10:00Z	6:10	PM	56.11	14.23	4.49	5.17	8.76	10.08	7.81
SE677	2021-11-25T02:20:00Z	6:20	PM	55.48	14.56	3.28	3.77	5.71	6.57	7.8
SE677	2021-11-25T02:30:00Z	6:30	PM	55.72	14.48	5.58	6.42	10.73	12.35	7.88
SE677	2021-11-25T02:40:00Z	6:40	PM	57.28	13.72	8.52	9.8	14.98	17.24	7.95
SE677	2021-11-25T02:50:00Z	6:50	PM	57.02	13.98	7.37	8.48	13.78	15.86	8.15
SE677	2021-11-25T03:00:00Z	7:00	PM	56.49	14.3	3.5	4.03	10.1	11.62	8.22
SE677	2021-11-25T03:10:00Z	7:10	PM	55.82	14.62	4.78	5.5	15.36	17.68	8.17
SE677	2021-11-25T03:20:00Z	7:20	PM	56.52	14.24	4.86	5.59	10.54	12.13	8.16
SE677	2021-11-25T03:30:00Z	7:30	PM	56.76	14.18	5.02	5.78	9.78	11.25	8.26
SE677	2021-11-25T03:40:00Z	7:40	PM	56.48	14.31	4.33	4.98	8.12	9.34	8.23
SE677	2021-11-25T03:50:00Z	7:50	PM	56.56	14.22	4.32	4.97	13.33	15.34	8.16
SE677	2021-11-25T04:00:00Z	8:00	PM	56.73	14.2	4.73	5.44	11.75	13.52	8.26
SE677	2021-11-25T04:10:00Z	8:10	PM	56.38	14.36	2.69	3.1	5.84	6.72	8.23
SE677	2021-11-25T04:20:00Z	8:20	PM	54.82	15.17	2.69	3.1	6.73	7.74	8.17
SE677	2021-11-25T04:30:00Z	8:30	PM	54.39	15.53	2.94	3.38	7.93	9.13	8.34
SE677	2021-11-25T04:40:00Z	8:40	PM	56.25	14.61	5.37	6.18	13.02	14.98	8.5
SE677	2021-11-25T04:50:00Z	8:50	PM	56.92	14.17	6.8	7.83	14.03	16.15	8.37
SE677	2021-11-25T05:00:00Z	9:00	PM	57.22	14.03	7.34	8.45	14.29	16.44	8.39
SE677	2021-11-25T05:10:00Z	9:10	PM	57.15	14.01	8.57	9.86	17.01	19.57	8.31
SE677	2021-11-25T05:20:00Z	9:20	PM	56.86	14.08	5.59	6.43	12.5	14.38	8.18
SE677	2021-11-25T05:30:00Z	9:30	PM	56.55	14.27	7.64	8.79	14.29	16.44	8.23
SE677	2021-11-25T05:40:00Z	9:40	PM	56.83	14.03	9.05	10.41	17.84	20.53	8.08
SE677	2021-11-25T05:50:00Z	9:50	PM	56.79	13.99	7.15	8.23	14.35	16.51	7.99
SE677	2021-11-25T06:00:00Z	10:00	PM	56.53	14.11	7.16	8.24	13.78	15.86	7.96

SE677	2021-11-25T05:50:00Z	9:50	PM	56.79	13.99	7.15	8.23	14.35	16.51	7.99
SE677	2021-11-25T06:00:00Z	10:00	PM	56.53	14.11	7.16	8.24	13.78	15.86	7.96
SE677	2021-11-25T06:10:00Z	10:10	PM	56.4	14.18	6.86	7.89	11.24	12.93	7.97
SE677	2021-11-25T06:20:00Z	10:20	PM	56.54	14.06	8.26	9.51	15.17	17.46	7.89
SE677	2021-11-25T06:30:00Z	10:30	PM	55.88	14.42	6.44	7.41	12.77	14.7	7.92
SE677	2021-11-25T06:40:00Z	10:40	PM	56.12	14.35	9.23	10.62	16.38	18.85	8
SE677	2021-11-25T06:50:00Z	10:50	PM	55.69	14.6	8.05	9.26	17.9	20.6	8.03
SE677	2021-11-25T07:00:00Z	11:00	PM	56.03	14.21	8.95	10.3	16.07	18.49	7.72
SE677	2021-11-25T07:10:00Z	11:10	PM	55.89	14.14	6.27	7.22	12.83	14.76	7.49
SE677	2021-11-25T07:20:00Z	11:20	PM	55.73	14.15	7.41	8.53	16.82	19.36	7.38
SE677	2021-11-25T07:30:00Z	11:30	PM	55.94	13.92	7.79	8.96	17.65	20.31	7.19
SE677	2021-11-25T07:40:00Z	11:40	PM	55.87	13.87	11.04	12.7	22.92	26.38	7.06
SE677	2021-11-25T07:50:00Z	11:50	PM	55.8	13.72	9.24	10.63	16.19	18.63	6.77
SE677	2021-11-25T08:00:00Z	12:00	AM	55.59	13.72	9.47	10.9	22.66	26.08	6.6
SE677	2021-11-25T08:10:00Z	12:10	AM	55.52	13.65	10.45	12.03	20.26	23.31	6.43
SE677	2021-11-25T08:20:00Z	12:20	AM	55.45	13.66	7.85	9.03	15.55	17.89	6.39
SE677	2021-11-25T08:30:00Z	12:30	AM	55.38	13.67	8.92	10.26	17.59	20.24	6.35
SE677	2021-11-25T08:40:00Z	12:40	AM	55.56	13.59	9.83	11.31	18.86	21.7	6.37
SE677	2021-11-25T08:50:00Z	12:50	AM	55.3	13.67	8.41	9.68	16.44	18.92	6.29
SE677	2021-11-25T09:00:00Z	1:00	AM	55.19	13.59	9.18	10.56	17.34	19.95	6.07
SE677	2021-11-25T09:10:00Z	1:10	AM	55.53	13.28	10.96	12.61	18.73	21.55	5.84
SE677	2021-11-25T09:20:00Z	1:20	AM	55.46	13.23	11.54	13.28	19.55	22.5	5.7
SE677	2021-11-25T09:30:00Z	1:30	AM	55.07	13.48	11.94	13.74	21.39	24.62	5.8
SE677	2021-11-25T09:40:00Z	1:40	AM	54.87	13.67	13.03	14.99	24.51	28.21	5.94
SE677	2021-11-25T09:50:00Z	1:50	AM	54.69	13.75	12.63	14.53	20.26	23.31	5.92
SE677	2021-11-25T10:00:00Z	2:00	AM	54.65	13.56	10.51	12.09	19.81	22.8	5.59
SE677	2021-11-25T10:10:00Z	2:10	AM	54.95	13.23	14.45	16.63	25.08	28.86	5.3
SE677	2021-11-25T10:20:00Z	2:20	AM	54.9	13.21	15.02	17.28	24.38	28.06	5.22
SE677	2021-11-25T10:30:00Z	2:30	AM	55.13	12.9	16.15	18.59	27.81	32	4.9
SE677	2021-11-25T10:40:00Z	2:40	AM	54.55	13.22	11.71	13.48	20.7	23.82	4.96
SE677	2021-11-25T10:50:00Z	2:50	AM	54.61	13.14	13.83	15.92	28.76	33.1	4.88
SE677	2021-11-25T11:00:00Z	3:00	AM	54.91	12.85	16.33	18.79	24	27.62	4.64
SE677	2021-11-25T11:10:00Z	3:10	AM	54.95	12.56	13.32	15.33	23.18	26.68	4.18
SE677	2021-11-25T11:20:00Z	3:20	AM	55.13	12.06	13.16	15.14	22.73	26.16	3.45
SE677	2021-11-25T11:30:00Z	3:30	AM	54.79	12.37	12.83	14.76	20.83	23.97	3.73
SE677	2021-11-25T11:40:00Z	3:40	AM	54.63	12.65	13.99	16.1	28.38	32.66	4.08
SE677	2021-11-25T11:50:00Z	3:50	AM	54.76	12.62	16.29	18.75	28.44	32.73	4.13
SE677	2021-11-25T12:00:00Z	4:00	AM	54.29	12.91	13.84	15.93	20.45	23.53	4.24
SE677	2021-11-25T12:10:00Z	4:10	AM	54.11	13.03	17.08	19.66	28.51	32.81	4.3
SE677	2021-11-25T12:20:00Z	4:20	AM	54.12	12.99	16	18.41	26.86	30.91	4.24
SE677	2021-11-25T12:30:00Z	4:30	AM	53.95	13.01	14.77	17	25.97	29.89	4.14
SE677	2021-11-25T12:40:00Z	4:40	AM	53.6	13.12	13.12	15.1	20.57	23.67	4.04
SE677	2021-11-25T12:50:00Z	4:50	AM	53.39	13.29	15.1	17.38	27.49	31.63	4.15
SE677	2021-11-25T13:00:00Z	5:00	AM	53.18	13.36	14.36	16.53	26.03	29.95	4.09
SE677	2021-11-25T13:10:00Z	5:10	AM	53.4	13.08	13.33	15.34	22.54	25.94	3.81
SE677	2021-11-25T13:20:00Z	5:20	AM	53.39	12.96	11.49	13.22	19.49	22.43	3.61
SE677	2021-11-25T13:30:00Z	5:30	AM	53.29	12.94	9.35	10.76	14.92	17.17	3.5
SE677	2021-11-25T13:40:00Z	5:40	AM	53.15	12.91	8.69	10	15.3	17.61	3.34
SE677	2021-11-25T13:50:00Z	5:50	AM	53.34	12.75	10.33	11.89	19.11	21.99	3.22
SE677	2021-11-25T14:00:00Z	6:00	AM	53.35	12.76	11.16	12.84	18.6	21.4	3.25
SE677	2021-11-25T14:10:00Z	6:10	AM	53.24	12.83	10.97	12.62	16.95	19.51	3.27
SE677	2021-11-25T14:20:00Z	6:20	AM	53.34	12.82	11.35	13.06	22.92	26.38	3.34
SE677	2021-11-25T14:30:00Z	6:30	AM	53.22	12.81	11.09	12.76	24	27.62	3.23
SE677	2021-11-25T14:40:00Z	6:40	AM	52.87	12.95	9.34	10.75	18.54	21.34	3.18
SE677	2021-11-25T14:50:00Z	6:50	AM	52.85	13.03	8.33	9.59	19.87	22.87	3.29
SE677	2021-11-25T15:00:00Z	7:00	AM	52.57	13.29	9.17	10.55	17.65	20.31	3.49
SE677	2021-11-25T15:10:00Z	7:10	AM	52.7	13.13	9.33	10.74	21.78	25.06	3.34
SE677	2021-11-25T15:20:00Z	7:20	AM	52.86	13.01	9.26	10.66	18.09	20.82	3.27
SE677	2021-11-25T15:30:00Z	7:30	AM	53.3	12.82	10.26	11.81	20.45	23.53	3.31
SE677	2021-11-25T15:40:00Z	7:40	AM	53.68	12.65	9.81	11.29	17.59	20.24	3.32
SE677	2021-11-25T15:50:00Z	7:50	AM	53.9	12.54	9.96	11.46	20.95	24.11	3.31
SE677	2021-11-25T16:00:00Z	8:00	AM	54.27	12.36	11.28	12.98	21.08	24.26	3.3
SE677	2021-11-25T16:10:00Z	8:10	AM	54.22	12.54	11.42	13.14	21.91	25.21	3.57
SE677	2021-11-25T16:20:00Z	8:20	AM	54.41	12.51	11.72	13.49	21.59	24.85	3.67
SE677	2021-11-25T16:30:00Z	8:30	AM	54.74	12.52	10.91	12.56	20	23.02	3.94
SE677	2021-11-25T16:40:00Z	8:40	AM	55.21	12.67	9.72	11.19	19.87	22.87	4.57
SE677	2021-11-25T16:50:00Z	8:50	AM	55.62	12.74	11.56	13.3	27.49	31.63	5.02
SE677	2021-11-25T17:00:00Z	9:00	AM	55.89	12.69	12.13	13.96	22.66	26.08	5.15
SE677	2021-11-25T17:10:00Z	9:10	AM	56.25	12.71	10.84	12.47	22.66	26.08	5.47
SE677	2021-11-25T17:20:00Z	9:20	AM	56.45	12.57	12.8	14.73	20.7	23.82	5.39
SE677	2021-11-25T17:30:00Z	9:30	AM	57.25	12.32	10.73	12.35	21.33	24.55	5.59
SE677	2021-11-25T17:40:00Z	9:40	AM	58.14	11.7	11.33	13.04	23.62	27.18	5.18
SE677	2021-11-25T17:50:00Z	9:50	AM	58.46	11.38	12.04	13.86	20.45	23.53	4.84
SE677	2021-11-25T18:00:00Z	10:00	AM	58.93	11.03	11.56	13.3	21.46	24.7	4.53

SE677	2021-11-25T18:00:00Z	10:00	AM	58.93	11.03	11.56	13.3	21.46	24.7	4.53
SE677	2021-11-25T18:10:00Z	10:10	AM	59.52	10.46	10.84	12.47	19.49	22.43	3.86
SE677	2021-11-25T18:20:00Z	10:20	AM	60.35	10.42	11.51	13.25	23.87	27.47	4.43
SE677	2021-11-25T18:30:00Z	10:30	AM	59.69	10.27	12.92	14.87	22.92	26.38	3.6
SE677	2021-11-25T18:40:00Z	10:40	AM	59.05	11.02	14.03	16.15	25.21	29.01	4.61
SE677	2021-11-25T18:50:00Z	10:50	AM	58.91	11.32	15.75	18.12	26.92	30.98	5.08
SE677	2021-11-25T19:00:00Z	11:00	AM	59.58	11.03	12.23	14.07	22.1	25.43	5.04
SE677	2021-11-25T19:10:00Z	11:10	AM	60.22	10.4	12.3	14.15	22.22	25.57	4.28
SE677	2021-11-25T19:20:00Z	11:20	AM	60.35	10.14	11.64	13.4	21.78	25.06	3.84
SE677	2021-11-25T19:30:00Z	11:30	AM	60.8	9.74	11.11	12.79	23.11	26.59	3.34
SE677	2021-11-25T19:40:00Z	11:40	AM	60.54	9.81	11.97	13.77	20.83	23.97	3.29
SE677	2021-11-25T19:50:00Z	11:50	AM	60.79	9.48	13.51	15.55	23.68	27.25	2.75
SE677	2021-11-25T20:00:00Z	12:00	PM	61.39	8.98	14.12	16.25	28.38	32.66	2.07
SE677	2021-11-25T20:10:00Z	12:10	PM	62.04	8.55	12.78	14.71	28.13	32.37	1.53
SE677	2021-11-25T20:20:00Z	12:20	PM	61.72	8.54	16.07	18.49	25.4	29.23	1.26
SE677	2021-11-25T20:30:00Z	12:30	PM	61.9	8.56	15.52	17.86	24.96	28.72	1.45
SE677	2021-11-25T20:40:00Z	12:40	PM	61.88	8.5	16.21	18.65	29.08	33.46	1.29
SE677	2021-11-25T20:50:00Z	12:50	PM	61.89	8.51	17.87	20.56	28.51	32.81	1.32
SE677	2021-11-25T21:00:00Z	1:00	PM	62.12	8.38	15.83	18.22	25.71	29.59	1.17
SE677	2021-11-25T21:10:00Z	1:10	PM	62.21	8.2	14.03	16.15	26.23	30.18	0.78
SE677	2021-11-25T21:20:00Z	1:20	PM	62.45	8.26	14.36	16.53	25.27	29.08	1.12
SE677	2021-11-25T21:30:00Z	1:30	PM	62.49	8.38	13.95	16.05	23.18	26.68	1.45
SE677	2021-11-25T21:40:00Z	1:40	PM	62.57	8.3	13.52	15.56	21.27	24.48	1.31
SE677	2021-11-25T21:50:00Z	1:50	PM	62.46	8.28	11.57	13.31	20	23.02	1.18
SE677	2021-11-25T22:00:00Z	2:00	PM	62.61	8.22	14.24	16.39	22.41	25.79	1.14
SE677	2021-11-25T22:10:00Z	2:10	PM	62.3	8.2	14.9	17.15	28.38	32.66	0.85
SE677	2021-11-25T22:20:00Z	2:20	PM	62.85	8.23	11.92	13.72	20.45	23.53	1.35
SE677	2021-11-25T22:30:00Z	2:30	PM	63.05	8.13	13.11	15.09	22.48	25.87	1.24
SE677	2021-11-25T22:40:00Z	2:40	PM	63.24		12.43	14.3	23.49	27.03	
SE677	2021-11-25T22:50:00Z	2:50	PM	63.28	7.94	12.88	14.82	22.16	25.5	0.92
SE677	2021-11-25T23:00:00Z	3:00	PM	63.39	7.84	12.39	14.26	20.83	23.97	0.74
SE677	2021-11-25T23:10:00Z	3:10	PM	63.43	7.69	15.13	17.41	25.21	29.01	0.37
SE677	2021-11-25T23:20:00Z	3:20	PM	63.61	7.65	14.04	16.16	22.79	26.23	0.39
SE677	2021-11-25T23:30:00Z	3:30	PM	63.57	7.57	10.72	12.34	16.63	19.14	0.14
SE677	2021-11-25T23:40:00Z	3:40	PM	63.59	7.54	11.32	13.03	22.03	25.35	0.08
SE677	2021-11-25T23:50:00Z	3:50	PM	63.42	7.6	7.73	8.9	13.9	16	0.11
SE677	2021-11-26T00:00:00Z	4:00	PM	62.98	7.72	7.38	8.49	15.81	18.19	0.11
SE677	2021-11-26T00:10:00Z	4:10	PM	62.35	7.87	8.19	9.42	15.55	17.89	0.03
SE677	2021-11-26T00:20:00Z	4:20	PM	62.16	7.81	8.19	9.42	15.88	18.27	-0.27
SE677	2021-11-26T00:30:00Z	4:30	PM	61.61	7.96	6.94	7.99	13.46	15.49	-0.29
SE677	2021-11-26T00:40:00Z	4:40	PM	61.1	8.02	5.19	5.97	10.79	12.42	-0.52
SE677	2021-11-26T00:50:00Z	4:50	PM	60.55	8.08	3.24	3.73	8.57	9.86	-0.78
SE677	2021-11-26T01:00:00Z	5:00	PM	60.49	8.04	4.08	4.7	9.39	10.81	-0.93
SE677	2021-11-26T01:10:00Z	5:10	PM	60	8.13	3.58	4.12	7.74	8.91	-1.07
SE677	2021-11-26T01:20:00Z	5:20	PM	59.92	8.13	2.98	3.43	6.41	7.38	-1.13
SE677	2021-11-26T01:30:00Z	5:30	PM	60.22	8.05	5.35	6.16	11.94	13.74	-1.11
SE677	2021-11-26T01:40:00Z	5:40	PM	60.65	7.93	6.09	7.01	12.5	14.38	-1.09
SE677	2021-11-26T01:50:00Z	5:50	PM	60.66	7.87	5.83	6.71	15.24	17.54	-1.24
SE677	2021-11-26T02:00:00Z	6:00	PM	60.57	7.85	5.07	5.83	11.5	13.23	-1.36
SE677	2021-11-26T02:10:00Z	6:10	PM	60.64	7.76	4.63	5.33	11.11	12.79	-1.55
SE677	2021-11-26T02:20:00Z	6:20	PM	60.8	7.77	5.22	6.01	10.6	12.2	-1.4
SE677	2021-11-26T02:30:00Z	6:30	PM	60.8	7.7	4.44	5.11	12	13.81	-1.59
SE677	2021-11-26T02:40:00Z	6:40	PM	60.81	7.75	4.43	5.1	8.64	9.94	-1.45
SE677	2021-11-26T02:50:00Z	6:50	PM	60.87	7.76	5.46	6.28	11.18	12.87	-1.38
SE677	2021-11-26T03:00:00Z	7:00	PM	60.86	7.78	5.12	5.89	10.48	12.06	-1.33
SE677	2021-11-26T03:10:00Z	7:10	PM	60.41	7.89	4.5	5.18	9.58	11.02	-1.38
SE677	2021-11-26T03:20:00Z	7:20	PM	60.57	7.86	5.36	6.17	13.21	15.2	-1.34
SE677	2021-11-26T03:30:00Z	7:30	PM	60.46	7.9	4.57	5.26	11.5	13.23	-1.31
SE677	2021-11-26T03:40:00Z	7:40	PM	60.27	7.99	3.99	4.59	9.08	10.45	-1.22
SE677	2021-11-26T03:50:00Z	7:50	PM	59.89	8.12	4.51	5.19	9.91	11.4	-1.18
SE677	2021-11-26T04:00:00Z	8:00	PM	60.22	8.07	4.82	5.55	9.2	10.59	-1.06
SE677	2021-11-26T04:10:00Z	8:10	PM	60.04	8.18	4.36	5.02	9.39	10.81	-0.91
SE677	2021-11-26T04:20:00Z	8:20	PM	59.96	8.29	4.62	5.32	10.41	11.98	-0.69
SE677	2021-11-26T04:30:00Z	8:30	PM	60.36	8.33	5.75	6.62	16.13	18.56	-0.29
SE677	2021-11-26T04:40:00Z	8:40	PM	61.28	8.23	9.61	11.06	18.47	21.25	0.16
SE677	2021-11-26T04:50:00Z	8:50	PM	61.33	8.22	6.44	7.41	13.52	15.56	0.17
SE677	2021-11-26T05:00:00Z	9:00	PM	60.76	8.38	6.35	7.31	12.83	14.76	0.14
SE677	2021-11-26T05:10:00Z	9:10	PM	60.89	8.33	7.56	8.7	13.78	15.86	0.11
SE677	2021-11-26T05:20:00Z	9:20	PM	60.85	8.43	4.94	5.68	12.77	14.7	0.33
SE677	2021-11-26T05:30:00Z	9:30	PM	60.75	8.42	6.24	7.18	14.35	16.51	0.23
SE677	2021-11-26T05:40:00Z	9:40	PM	61.11	8.24	6.11	7.03	13.27	15.27	0.05
SE677	2021-11-26T05:50:00Z	9:50	PM	61	8.25	4.55	5.24	14.35	16.51	-0.01

SE677	2021-11-26T06:00:00Z	10:00	PM	60.1	8.46	3.56	4.1	9.39	10.81	-0.17
SE677	2021-11-26T06:10:00Z	10:10	PM	60.21	8.42	5.32	6.12	13.02	14.98	-0.18
SE677	2021-11-26T06:20:00Z	10:20	PM	60.89	8.28	6.37	7.33	15.55	17.89	-0.01
SE677	2021-11-26T06:30:00Z	10:30	PM	61.14	8.25	7.81	8.99	13.4	15.42	0.1
SE677	2021-11-26T06:40:00Z	10:40	PM	61.53	8.31	8.58	9.87	13.33	15.34	0.55
SE677	2021-11-26T06:50:00Z	10:50	PM	61.14	8.61	8.53	9.82	16.26	18.71	0.99
SE677	2021-11-26T07:00:00Z	11:00	PM	60.79	8.7	9.78	11.25	18.22	20.97	0.94
SE677	2021-11-26T07:10:00Z	11:10	PM	59.42	9.13	7.82	9	13.02	14.98	0.91
SE677	2021-11-26T07:20:00Z	11:20	PM	56.89	9.86	5.91	6.8	11.56	13.3	0.57
SE677	2021-11-26T07:30:00Z	11:30	PM	55.22	10.48	6.29	7.24	11.5	13.23	0.55
SE677	2021-11-26T07:40:00Z	11:40	PM	54.84	10.71	4.89	5.63	9.33	10.74	0.71
SE677	2021-11-26T07:50:00Z	11:50	PM	54.74	10.81	4.78	5.5	9.97	11.47	0.83
SE677	2021-11-26T08:00:00Z	12:00	AM	54.26	11	5	5.75	9.72	11.19	0.82
SE677	2021-11-26T08:10:00Z	12:10	AM	53.36	11.37	2.94	3.38	11.75	13.52	0.81
SE677	2021-11-26T08:20:00Z	12:20	AM	51.53	12.14	0.65	0.75	2.79	3.21	0.75
SE677	2021-11-26T08:30:00Z	12:30	AM	50.26	12.79	1.76	2.03	3.87	4.45	0.84
SE677	2021-11-26T08:40:00Z	12:40	AM	50.74	12.64	2.64	3.04	7.37	8.48	0.97
SE677	2021-11-26T08:50:00Z	12:50	AM	51.38	12.37	2.67	3.07	6.67	7.68	1.02
SE677	2021-11-26T09:00:00Z	1:00	AM	51.48	12.27	3.3	3.8	6.6	7.6	0.93
SE677	2021-11-26T09:10:00Z	1:10	AM	51.71	12.18	4.69	5.4	11.68	13.44	0.96
SE677	2021-11-26T09:20:00Z	1:20	AM	51.64	12.21	4.82	5.55	11.11	12.79	0.95
SE677	2021-11-26T09:30:00Z	1:30	AM	52.17	11.87	5.71	6.57	15.43	17.76	0.78
SE677	2021-11-26T09:40:00Z	1:40	AM	52.47	11.66	5.52	6.35	13.52	15.56	0.64
SE677	2021-11-26T09:50:00Z	1:50	AM	52.38	11.67	4.44	5.11	11.43	13.15	0.59
SE677	2021-11-26T10:00:00Z	2:00	AM	52.22	11.72	4.39	5.05	12	13.81	0.55
SE677	2021-11-26T10:10:00Z	2:10	AM	52.43	11.67	4.13	4.75	10.73	12.35	0.63
SE677	2021-11-26T10:20:00Z	2:20	AM	52.31	11.76	2.95	3.39	7.55	8.69	0.69
SE677	2021-11-26T10:30:00Z	2:30	AM	52.58	11.69	5.46	6.28	10.92	12.57	0.78
SE677	2021-11-26T10:40:00Z	2:40	AM	52.91	11.63	4.45	5.12	11.87	13.66	0.93
SE677	2021-11-26T10:50:00Z	2:50	AM	53.12	11.57	4.32	4.97	9.97	11.47	0.99
SE677	2021-11-26T11:00:00Z	3:00	AM	53.47	11.49	5.07	5.83	11.68	13.44	1.12
SE677	2021-11-26T11:10:00Z	3:10	AM	53.69	11.44	5.42	6.24	12.57	14.47	1.2
SE677	2021-11-26T11:20:00Z	3:20	AM	53.66	11.54	5.28	6.08	10.92	12.57	1.36
SE677	2021-11-26T11:30:00Z	3:30	AM	53.68	11.68	4.83	5.56	9.85	11.34	1.63
SE677	2021-11-26T11:40:00Z	3:40	AM	54.23	11.49	4.85	5.58	10.1	11.62	1.72
SE677	2021-11-26T11:50:00Z	3:50	AM	53.91	11.58	4.79	5.51	11.75	13.52	1.63
SE677	2021-11-26T12:00:00Z	4:00	AM	53.45	11.79	4.47	5.14	8.7	10.01	1.65
SE677	2021-11-26T12:10:00Z	4:10	AM	53.43	11.92	3.22	3.71	6.92	7.96	1.86
SE677	2021-11-26T12:20:00Z	4:20	AM	51.91	12.58	1.72	1.98	3.75	4.32	1.8
SE677	2021-11-26T12:30:00Z	4:30	AM	49.72	13.59	0.77	0.89	1.78	2.05	1.69
SE677	2021-11-26T12:40:00Z	4:40	AM	49.63	13.77	1.59	1.83	4.13	4.75	1.89
SE677	2021-11-26T12:50:00Z	4:50	AM	49.29	14.33	1.85	2.13	3.68	4.23	2.47
SE677	2021-11-26T13:00:00Z	5:00	AM	49.6	14.14	1.84	2.12	4.64	5.34	2.43
SE677	2021-11-26T13:10:00Z	5:10	AM	50.83	13.4	0.93	1.07	3.43	3.95	2.28
SE677	2021-11-26T13:20:00Z	5:20	AM	51.55	12.96	1.11	1.28	3.68	4.23	2.14
SE677	2021-11-26T13:30:00Z	5:30	AM	50.4	13.44	0.72	0.83	2.98	3.43	2
SE677	2021-11-26T13:40:00Z	5:40	AM	49.25	13.9	0.95	1.09	2.92	3.36	1.79
SE677	2021-11-26T13:50:00Z	5:50	AM	48.28	14.37	1.27	1.46	4.13	4.75	1.71
SE677	2021-11-26T14:00:00Z	6:00	AM	48.1	14.49	0.78	0.9	2.98	3.43	1.74
SE677	2021-11-26T14:10:00Z	6:10	AM	49.57	13.5	2.35	2.7	8.38	9.64	1.43
SE677	2021-11-26T14:20:00Z	6:20	AM	52.64	11.62	3.66	4.21	11.18	12.87	0.7
SE677	2021-11-26T14:30:00Z	6:30	AM	53.36	11.16	6.86	7.89	15.81	18.19	0.42
SE677	2021-11-26T14:40:00Z	6:40	AM	53.73	10.95	5.84	6.72	15.3	17.61	0.31
SE677	2021-11-26T14:50:00Z	6:50	AM	53.18	11.09	7.66	8.81	14.54	16.73	0.15
SE677	2021-11-26T15:00:00Z	7:00	AM	52.78	11.13	7.31	8.41	13.02	14.98	-0.09
SE677	2021-11-26T15:10:00Z	7:10	AM	54.37	10.26	6.82	7.85	12.06	13.88	-0.55
SE677	2021-11-26T15:20:00Z	7:20	AM	56.21	9.43	5.43	6.25	9.39	10.81	-0.89
SE677	2021-11-26T15:30:00Z	7:30	AM	56.93	9.18	3.05	3.51	7.49	8.62	-0.89
SE677	2021-11-26T15:40:00Z	7:40	AM	58	8.87	2.38	2.74	7.49	8.62	-0.78
SE677	2021-11-26T15:50:00Z	7:50	AM	57.16	9.74	2.3	2.65	4.83	5.56	0.52
SE677	2021-11-26T16:00:00Z	8:00	AM	58.53	9.55	3.31	3.81	5.78	6.65	1.17
SE677	2021-11-26T16:10:00Z	8:10	AM	60.14	9.09	3.69	4.25	9.39	10.81	1.37
SE677	2021-11-26T16:20:00Z	8:20	AM	60.55	8.54	5.74	6.61	10.35	11.91	0.37
SE677	2021-11-26T16:30:00Z	8:30	AM	60.53	8.8	3.69	4.25	7.43	8.55	0.98
SE677	2021-11-26T16:40:00Z	8:40	AM	58.86	9.3	5.83	6.71	11.04	12.7	0.86
SE677	2021-11-26T16:50:00Z	8:50	AM	57.92	9.55	3.53	4.06	8.7	10.01	0.7
SE677	2021-11-26T17:00:00Z	9:00	AM	57.24	9.69	4.39	5.05	11.56	13.3	0.48
SE677	2021-11-26T17:10:00Z	9:10	AM	57.03	9.9	4.64	5.34	13.52	15.56	0.76
SE677	2021-11-26T17:20:00Z	9:20	AM	56.95	10.05	3.49	4.02	11.94	13.74	1.02
SE677	2021-11-26T17:30:00Z	9:30	AM	57.18	10.05	3.35	3.86	9.33	10.74	1.2
SE677	2021-11-26T17:40:00Z	9:40	AM	56.82	10.41	3.73	4.29	13.27	15.27	1.66
SE677	2021-11-26T17:50:00Z	9:50	AM	57.23	10.2	4.54	5.22	14.67	16.88	1.55

SE677	2021-11-26T17:50:00Z	9:50	AM	57.23	10.2	4.54	5.22	14.67	16.88	1.55
SE677	2021-11-26T18:00:00Z	10:00	AM	59.31	9.91	2.66	3.06	9.08	10.45	2.55
SE677	2021-11-26T18:10:00Z	10:10	AM	59.95	9.18	3.95	4.55	9.78	11.25	1.43
SE677	2021-11-26T18:20:00Z	10:20	AM	60.34	9.36	2.95	3.39	8.57	9.86	2.14
SE677	2021-11-26T18:30:00Z	10:30	AM	60.93	9.27	3.81	4.38	12.7	14.61	2.39
SE677	2021-11-26T18:40:00Z	10:40	AM	61.25	9.09	7.55	8.69	14.61	16.81	2.22
SE677	2021-11-26T18:50:00Z	10:50	AM	61.6	9.06	5.52	6.35	11.31	13.02	2.42
SE677	2021-11-26T19:00:00Z	11:00	AM	61.78	9.17	4.5	5.18	11.68	13.44	2.81
SE677	2021-11-26T19:10:00Z	11:10	AM	61.77	9.34	5.34	6.15	15.81	18.19	3.19
SE677	2021-11-26T19:20:00Z	11:20	AM	62.14	9.33	4.46	5.13	11.94	13.74	3.45
SE677	2021-11-26T19:30:00Z	11:30	AM	62.6	9.41	4.13	4.75	15.55	17.89	3.99
SE677	2021-11-26T19:40:00Z	11:40	AM	62.84	9.35	4.08	4.7	13.02	14.98	4.04
SE677	2021-11-26T19:50:00Z	11:50	AM	64.05	8.81	6.71	7.72	20.32	23.38	3.7
SE677	2021-11-26T20:00:00Z	12:00	PM	64.79	8.49	6.1	7.02	12.06	13.88	3.48

Attachment 2.

Weather Data from SCE's "Mesa Grande" Weather Station up the Briggs Road Canyon in Agua Dulce.

SCE MESA GRANDE WEATHER STATION ON BRIGGS ROAD IN AGUA DULCE
The provisional data available here are intended for diverse user applications.
For data review the information
available from the NCEI (https://www.ncdc.noaa.gov/customer-support/certification-data)
or consult a CCM (http://www.nicm.org).
STATION: 027SE
STATION NAME: SCE Mesa Grande Rd
LATITUDE: 34.45793
LONGITUDE: -118.30035
ELEVATION [ft]: 2533
STATE: CA

Max sustained winds: 27.34 Occurred on November 25 at 2:50 PM
Max wind gusts: 46.76 Occurred on November 25 at 11:50 AM

			Temp	RH	wind speed		wind gust		dew point
Station ID	UTC time	Local Time	° F	%	knots	mph	knots	mph	° F
027SE	2021-11-24T20:00:00Z	12:00 PM	59.97	16.48	23.23	26.73	34.92	40.19	14.21
027SE	2021-11-24T20:10:00Z	12:10 PM	60.38	16.37	22.37	25.74	36.38	41.87	14.39
027SE	2021-11-24T20:20:00Z	12:20 PM	60.87	16.22	16.72	19.24	25.46	29.3	14.59
027SE	2021-11-24T20:30:00Z	12:30 PM	60.63	16.28	21.91	25.21	31.43	36.17	14.47
027SE	2021-11-24T20:40:00Z	12:40 PM	60.53	16.27	19.27	22.18	32	36.82	14.38
027SE	2021-11-24T20:50:00Z	12:50 PM	60.9	15.91	16.52	19.01	32.07	36.91	14.17
027SE	2021-11-24T21:00:00Z	1:00 PM	60.73	15.73	16.19	18.63	28.63	32.95	13.78
027SE	2021-11-24T21:10:00Z	1:10 PM	61.21	15.4	15.16	17.45	28.82	33.17	13.69
027SE	2021-11-24T21:20:00Z	1:20 PM	61.48	15.08	15.19	17.48	29.46	33.9	13.44
027SE	2021-11-24T21:30:00Z	1:30 PM	61.63	14.68	16.71	19.23	32.19	37.04	12.95
027SE	2021-11-24T21:40:00Z	1:40 PM	61.7	14.28	17.89	20.59	31.05	35.73	12.39
027SE	2021-11-24T21:50:00Z	1:50 PM	62.24	13.95	18.51	21.3	31.81	36.61	12.3
027SE	2021-11-24T22:00:00Z	2:00 PM	62.3	13.81	18.79	21.62	33.14	38.14	12.13
027SE	2021-11-24T22:10:00Z	2:10 PM	62.09	13.62	20.39	23.46	37.52	43.18	11.65
027SE	2021-11-24T22:20:00Z	2:20 PM	62.03	13.66	20.05	23.07	33.14	38.14	11.67
027SE	2021-11-24T22:30:00Z	2:30 PM	61.72	13.51	22.24	25.59	33.2	38.21	11.17
027SE	2021-11-24T22:40:00Z	2:40 PM	61.5	13.61	19.83	22.82	32.7	37.63	11.16
027SE	2021-11-24T22:50:00Z	2:50 PM	61.43	13.5	20.84	23.98	33.91	39.02	10.92
027SE	2021-11-24T23:00:00Z	3:00 PM	61.11	13.35	20.38	23.45	29.08	33.46	10.42
027SE	2021-11-24T23:10:00Z	3:10 PM	61.3	13.12	17.14	19.72	30.09	34.63	10.19
027SE	2021-11-24T23:20:00Z	3:20 PM	61.32	13.08	17.08	19.66	29.15	33.55	10.13
027SE	2021-11-24T23:30:00Z	3:30 PM	61.08	13.17	14.54	16.73	25.02	28.79	10.09
027SE	2021-11-24T23:40:00Z	3:40 PM	61.05	13.14	18.23	20.98	33.14	38.14	10.02
027SE	2021-11-24T23:50:00Z	3:50 PM	60.69	13.02	18.48	21.27	28.57	32.88	9.53
027SE	2021-11-25T00:00:00Z	4:00 PM	60.45	12.84	20.07	23.1	30.54	35.14	9.03
027SE	2021-11-25T00:10:00Z	4:10 PM	60.16	12.6	20.69	23.81	28	32.22	8.39
027SE	2021-11-25T00:20:00Z	4:20 PM	59.93	12.61	17.95	20.66	25.9	29.81	8.22
027SE	2021-11-25T00:30:00Z	4:30 PM	59.73	12.96	14.37	16.54	23.87	27.47	8.66
027SE	2021-11-25T00:40:00Z	4:40 PM	59.49	13.24	12.72	14.64	21.2	24.4	8.94
027SE	2021-11-25T00:50:00Z	4:50 PM	59.14	13.42	12.84	14.78	20.06	23.08	8.96
027SE	2021-11-25T01:00:00Z	5:00 PM	58.92	13.7	14.26	16.41	23.24	26.74	9.24
027SE	2021-11-25T01:10:00Z	5:10 PM	58.63	14.03	15.76	18.14	24.57	28.27	9.53
027SE	2021-11-25T01:20:00Z	5:20 PM	58.43	14.07	17.48	20.12	25.78	29.67	9.43
027SE	2021-11-25T01:30:00Z	5:30 PM	57.99	13.93	12.3	14.15	19.43	22.36	8.86
027SE	2021-11-25T01:40:00Z	5:40 PM	57.69	13.6	14.24	16.39	23.75	27.33	8.09
027SE	2021-11-25T01:50:00Z	5:50 PM	57.35	13.34	10.52	12.11	22.03	25.35	7.4
027SE	2021-11-25T02:00:00Z	6:00 PM	57.1	13.25	6.49	7.47	22.66	26.08	7.05
027SE	2021-11-25T02:10:00Z	6:10 PM	56.7	13.39	11.53	13.27	20.45	23.53	6.96
027SE	2021-11-25T02:20:00Z	6:20 PM	56.43	13.58	15.77	18.15	27.24	31.35	7.05
027SE	2021-11-25T02:30:00Z	6:30 PM	56.35	13.76	16.28	18.73	25.27	29.08	7.27
027SE	2021-11-25T02:40:00Z	6:40 PM	55.81	14.22	13.14	15.12	23.56	27.11	7.55
027SE	2021-11-25T02:50:00Z	6:50 PM	55.45	14.5	5.12	5.89	21.39	24.62	7.69
027SE	2021-11-25T03:00:00Z	7:00 PM	55.38	14.67	14.42	16.59	23.49	27.03	7.89
027SE	2021-11-25T03:10:00Z	7:10 PM	55.94	14.37	16.25	18.7	23.94	27.55	7.89
027SE	2021-11-25T03:20:00Z	7:20 PM	55.84	14.38	12.89	14.83	24.96	28.72	7.82
027SE	2021-11-25T03:30:00Z	7:30 PM	55.57	14.51	15.75	18.12	25.4	29.23	7.8
027SE	2021-11-25T03:40:00Z	7:40 PM	55.98	14.32	13.63	15.69	26.54	30.54	7.84
027SE	2021-11-25T03:50:00Z	7:50 PM	56.07	14.25	12.17	14	20.57	23.67	7.81
027SE	2021-11-25T04:00:00Z	8:00 PM	55.79	14.48	12.64	14.55	23.81	27.4	7.93
027SE	2021-11-25T04:10:00Z	8:10 PM	55.5	14.85	13.28	15.28	21.33	24.55	8.25
027SE	2021-11-25T04:20:00Z	8:20 PM	55.3	15.03	10.96	12.61	17.34	19.95	8.36
027SE	2021-11-25T04:30:00Z	8:30 PM	55.35	15.12	9.73	11.2	17.4	20.02	8.53
027SE	2021-11-25T04:40:00Z	8:40 PM	55.2	15.21	9.35	10.76	16.82	19.36	8.54
027SE	2021-11-25T04:50:00Z	8:50 PM	55.19	15.03	12.49	14.37	22.85	26.3	8.27
027SE	2021-11-25T05:00:00Z	9:00 PM	55.18	14.95	12.61	14.51	20	23.02	8.14
027SE	2021-11-25T05:10:00Z	9:10 PM	55.15	14.99	14.29	16.44	23.31	26.82	8.18
027SE	2021-11-25T05:20:00Z	9:20 PM	55.27	14.84	14.91	17.16	22.41	25.79	8.05
027SE	2021-11-25T05:30:00Z	9:30 PM	55.35	14.68	12.37	14.24	25.27	29.08	7.88
027SE	2021-11-25T05:40:00Z	9:40 PM	55.27	14.6	12.63	14.53	22.85	26.3	7.69
027SE	2021-11-25T05:50:00Z	9:50 PM	55.17	14.68	16.02	18.44	28.25	32.51	7.73
027SE	2021-11-25T06:00:00Z	10:00 PM	54.95	14.71	13.94	16.04	22.98	26.44	7.6
027SE	2021-11-25T06:10:00Z	10:10 PM	54.5	15.02	12.03	13.84	21.33	24.55	7.69
027SE	2021-11-25T06:20:00Z	10:20 PM	54.29	15.18	11.55	13.29	17.53	20.17	7.75
027SE	2021-11-25T06:30:00Z	10:30 PM	54.22	15.18	12.63	14.53	23.37	26.89	7.7
027SE	2021-11-25T06:40:00Z	10:40 PM	54.53	14.9	14.21	16.35	29.65	34.12	7.54
027SE	2021-11-25T06:50:00Z	10:50 PM	54.66	14.82	14.82	17.05	27.56	31.72	7.53
027SE	2021-11-25T07:00:00Z	11:00 PM	54.41	15.07	16.6	19.1	25.21	29.01	7.69

027SE	2021-11-25T06:50:00Z	10:50	PM		54.66		14.82		14.82	17.05		27.56	31.72		7.53
027SE	2021-11-25T07:00:00Z	11:00	PM		54.41		15.07		16.6	19.1		25.21	29.01		7.69
027SE	2021-11-25T07:10:00Z	11:10	PM		54.14		15.05		16.47	18.95		26.29	30.25		7.44
027SE	2021-11-25T07:20:00Z	11:20	PM		54.2		14.87		14.41	16.58		26.29	30.25		7.23
027SE	2021-11-25T07:30:00Z	11:30	PM		54.72		14.39		16.43	18.91		27.11	31.2		6.93
027SE	2021-11-25T07:40:00Z	11:40	PM		55.02		14.11		16.71	19.23		28.44	32.73		6.75
027SE	2021-11-25T07:50:00Z	11:50	PM		54.74		14.19		15.02	17.28		23.62	27.18		6.65
027SE	2021-11-25T08:00:00Z	12:00	AM		54.23		14.34		15.95	18.35		28.07	32.3		6.46
027SE	2021-11-25T08:10:00Z	12:10	AM		53.88		14.42		18.18	20.92		28.07	32.3		6.3
027SE	2021-11-25T08:20:00Z	12:20	AM		53.71		14.45		19.04	21.91		27.05	31.13		6.21
027SE	2021-11-25T08:30:00Z	12:30	AM		53.65		14.42		18.87	21.72		31.11	35.8		6.12
027SE	2021-11-25T08:40:00Z	12:40	AM		53.71		14.41		23.22	26.72		32.57	37.48		6.15
027SE	2021-11-25T08:50:00Z	12:50	AM		53.68		14.41		18.34	21.11		30.99	35.66		6.13
027SE	2021-11-25T09:00:00Z	1:00	AM		53.64		14.35		17.01	19.57		28.38	32.66		6
027SE	2021-11-25T09:10:00Z	1:10	AM		53.74		14.14		17.81	20.5		27.05	31.13		5.76
027SE	2021-11-25T09:20:00Z	1:20	AM		53.65		14.11		19	21.86		30.35	34.93		5.65
027SE	2021-11-25T09:30:00Z	1:30	AM		53.69		13.95		16.49	18.98		29.08	33.46		5.43
027SE	2021-11-25T09:40:00Z	1:40	AM		53.53		13.98		16.39	18.86		31.05	35.73		5.35
027SE	2021-11-25T09:50:00Z	1:50	AM		53.19		14.36		18.6	21.4		30.67	35.29		5.66
027SE	2021-11-25T10:00:00Z	2:00	AM		52.82		14.57		19.33	22.24		31.55	36.31		5.67
027SE	2021-11-25T10:10:00Z	2:10	AM		52.53		14.57		16.2	18.64		27.42	31.55		5.44
027SE	2021-11-25T10:20:00Z	2:20	AM		52.82		14.19		17.21	19.8		30.92	35.58		5.1
027SE	2021-11-25T10:30:00Z	2:30	AM		52.85		14.1		18.8	21.63		31.62	36.39		4.99
027SE	2021-11-25T10:40:00Z	2:40	AM		52.63		14.27		20.93	24.09		31.93	36.74		5.07
027SE	2021-11-25T10:50:00Z	2:50	AM		52.34		14.38		19.68	22.65		33.84	38.94		5
027SE	2021-11-25T11:00:00Z	3:00	AM		52.32		14.26		21.82	25.11		36.64	42.16		4.8
027SE	2021-11-25T11:10:00Z	3:10	AM		52.29		14.24		17.32	19.93		27.81	32		4.75
027SE	2021-11-25T11:20:00Z	3:20	AM		52.46		13.94		18.32	21.08		30.73	35.36		4.43
027SE	2021-11-25T11:30:00Z	3:30	AM		52.5		13.78		18.39	21.16		34.48	39.68		4.21
027SE	2021-11-25T11:40:00Z	3:40	AM		52.11		14.09		16.43	18.91		27.94	32.15		4.38
027SE	2021-11-25T11:50:00Z	3:50	AM		51.86		14.21		16.04	18.46		26.98	31.05		4.36
027SE	2021-11-25T12:00:00Z	4:00	AM		52.09		14.06		19.52	22.46		30.16	34.71		4.31
027SE	2021-11-25T12:10:00Z	4:10	AM		51.78		14.28		18.83	21.67		31.81	36.61		4.4
027SE	2021-11-25T12:20:00Z	4:20	AM		51.69		14.29		18.58	21.38		33.14	38.14		4.34
027SE	2021-11-25T12:30:00Z	4:30	AM		51.82		14.15		19.66	22.62		33.08	38.07		4.23
027SE	2021-11-25T12:40:00Z	4:40	AM		51.8		14.08		17.28	19.89		27.69	31.87		4.11
027SE	2021-11-25T12:50:00Z	4:50	AM		51.55		14.12		16.61	19.11		34.35	39.53		3.97
027SE	2021-11-25T13:00:00Z	5:00	AM		51.54		14.09		21.69	24.96		36.19	41.65		3.92
027SE	2021-11-25T13:10:00Z	5:10	AM		51.53		14.07		19.96	22.97		37.33	42.96		3.88
027SE	2021-11-25T13:20:00Z	5:20	AM		51.37		14.15		17.09	19.67		29.46	33.9		3.87
027SE	2021-11-25T13:30:00Z	5:30	AM		51.14		14.31		16.79	19.32		29.27	33.68		3.93
027SE	2021-11-25T13:40:00Z	5:40	AM		51.07		14.25		17.67	20.33		26.23	30.18		3.78
027SE	2021-11-25T13:50:00Z	5:50	AM		51.22		14.03		16.28	18.73		26.16	30.1		3.57
027SE	2021-11-25T14:00:00Z	6:00	AM		51.25		13.89		16.22	18.67		28.51	32.81		3.38
027SE	2021-11-25T14:10:00Z	6:10	AM		51.13		13.96		15.56	17.91		24.19	27.84		3.39
027SE	2021-11-25T14:20:00Z	6:20	AM		51.14		14.01		16.35	18.82		29.27	33.68		3.47
027SE	2021-11-25T14:30:00Z	6:30	AM		51.08		14		15.86	18.25		31.49	36.24		3.41
027SE	2021-11-25T14:40:00Z	6:40	AM		51.34		13.8		20.85	23.99		33.33	38.36		3.31
027SE	2021-11-25T14:50:00Z	6:50	AM		51.46		13.56		19.1	21.98		34.35	39.53		3.03
027SE	2021-11-25T15:00:00Z	7:00	AM		51.65		13.28		16.29	18.75		28.76	33.1		2.74
027SE	2021-11-25T15:10:00Z	7:10	AM		51.69		13.19		14.36	16.53		30.22	34.78		2.63
027SE	2021-11-25T15:20:00Z	7:20	AM		52.06		12.89		15.22	17.51		24.06	27.69		2.43
027SE	2021-11-25T15:30:00Z	7:30	AM		52.32		12.86		16.18	18.62		25.59	29.45		2.59
027SE	2021-11-25T15:40:00Z	7:40	AM		52.38		12.94		21.88	25.18		35.05	40.33		2.77
027SE	2021-11-25T15:50:00Z	7:50	AM		52.32		13.16		20.31	23.37		34.03	39.16		3.08
027SE	2021-11-25T16:00:00Z	8:00	AM		52.48		13.12		23.46	27		39.75	45.74		3.15
027SE	2021-11-25T16:10:00Z	8:10	AM		52.58		13.1		21.18	24.37		35.62	40.99		3.19
027SE	2021-11-25T16:20:00Z	8:20	AM		52.85		12.91		21.38	24.6		32.07	36.91		3.1
027SE	2021-11-25T16:30:00Z	8:30	AM		53.22		12.74		18.26	21.01		34.1	39.24		3.11
027SE	2021-11-25T16:40:00Z	8:40	AM		53.43		12.7		18.83	21.67		29.21	33.61		3.21
027SE	2021-11-25T16:50:00Z	8:50	AM		53.76		12.69		17.43	20.06		31.24	35.95		3.45
027SE	2021-11-25T17:00:00Z	9:00	AM		53.93		12.82		21.22	24.42		35.37	40.7		3.81
027SE	2021-11-25T17:10:00Z	9:10	AM		54.26		12.68		18.79	21.62		31.43	36.17		3.83
027SE	2021-11-25T17:20:00Z	9:20	AM		54.73		12.5		18.74	21.57		25.71	29.59		3.9
027SE	2021-11-25T17:30:00Z	9:30	AM		55.18		12.37		17.92	20.62		33.39	38.42		4.04
027SE	2021-11-25T17:40:00Z	9:40	AM		55.44		12.35		17.66	20.32		35.31	40.63		4.21
027SE	2021-11-25T17:50:00Z	9:50	AM		55.55		12.38		16.01	18.42		31.24	35.95		4.35
027SE	2021-11-25T18:00:00Z	10:00	AM		55.88		12.15		1.9	2.19		23.56	27.11		4.21
027SE	2021-11-25T18:10:00Z	10:10	AM		56.51		11.52		0	0		0	0		3.56
027SE	2021-11-25T18:20:00Z	10:20	AM		56.63		11.48		0	0		0	0		3.58
027SE	2021-11-25T18:30:00Z	10:30	AM		56.81		11.48		0	0		0	0		3.73
027SE	2021-11-25T18:40:00Z	10:40	AM		56.81		11.11		6.76	7.78		38.73	44.57		3.03
027SE	2021-11-25T18:50:00Z	10:50	AM		56.84		11.47		20.7	23.82		32.95	37.92		3.73
027SE	2021-11-25T19:00:00Z	11:00	AM		57.29		11.67		19.77	22.75		33.66	38.74		4.46
027SE	2021-11-25T19:10:00Z	11:10	AM		57.71		11.38		17.31	19.92		29.78	34.27		4.25
027SE	2021-11-25T19:20:00Z	11:20	AM		57.7		10.99		19.69	22.66		31.43	36.17		3.49
027SE	2021-11-25T19:30:00Z	11:30	AM		57.97		10.71		21.29	24.5		36.7	42.23		3.16
027SE	2021-11-25T19:40:00Z	11:40	AM		58.2		10.47		19.35	22.27		37.52	43.18		2.85
027SE	2021-11-25T19:50:00Z	11:50	AM		58.65		10.38		19.75	22.73		40.63	46.76		3.02
027SE	2021-11-25T20:00:00Z	12:00	PM		58.81		10.24		20.48	23.57		36.19	41.65		2.86
027SE	2021-11-25T20:10:00Z	12:10	PM		58.8		9.81		18.43	21.21		33.72	38.8		1.94
027SE	2021-11-25T20:20:00Z	12:20	PM		59.34		9.26		19.88	22.88		34.54	39.75		1.14
027SE	2021-11-25T20:30:00Z	12:30	PM		59.72		9.03		17.61	20.27		27.56	31.72		0.91
027SE	2021-11-25T20:40:00Z	12:40	PM		59.74		9.08		16.48	18.96		29.84	34.34		1.04

027SE	2021-11-25T20:40:00Z	12:40	PM		59.74		9.08		16.48	18.96		29.84	34.34		1.04
027SE	2021-11-25T20:50:00Z	12:50	PM		60.22		8.67		18.6	21.4		37.84	43.55		0.44
027SE	2021-11-25T21:00:00Z	1:00	PM		59.98		8.76		19.84	22.83		34.6	39.82		0.47
027SE	2021-11-25T21:10:00Z	1:10	PM		60.15		8.98		17.54	20.18		30.03	34.56		1.12
027SE	2021-11-25T21:20:00Z	1:20	PM		59.8		9.11		20.56	23.66		32.32	37.19		1.15
027SE	2021-11-25T21:30:00Z	1:30	PM		60.37		9.1		18.34	21.11		32.95	37.92		1.57
027SE	2021-11-25T21:40:00Z	1:40	PM		60.12		8.98		20.67	23.79		38.16	43.91		1.1
027SE	2021-11-25T21:50:00Z	1:50	PM		60.61		8.77		19.53	22.47		30.73	35.36		0.97
027SE	2021-11-25T22:00:00Z	2:00	PM		60.57		8.78		21.19	24.39		34.35	39.53		0.97
027SE	2021-11-25T22:10:00Z	2:10	PM		60.67		8.73		19.6	22.56		33.78	38.87		0.92
027SE	2021-11-25T22:20:00Z	2:20	PM		60.91		8.7		17.18	19.77		29.97	34.49		1.04
027SE	2021-11-25T22:30:00Z	2:30	PM		60.87		8.59		19.25	22.15		34.03	39.16		0.74
027SE	2021-11-25T22:40:00Z	2:40	PM		60.98		8.52		22.62	26.03		36.25	41.72		0.65
027SE	2021-11-25T22:50:00Z	2:50	PM		60.83		8.52		23.76	27.34		38.35	44.13		0.54
027SE	2021-11-25T23:00:00Z	3:00	PM		61.14		8.44		20.42	23.5		33.08	38.07		0.58
027SE	2021-11-25T23:10:00Z	3:10	PM		61.05		8.33		23.64	27.2		36.83	42.38		0.23
027SE	2021-11-25T23:20:00Z	3:20	PM		61.1		8.23		23.14	26.63		35.37	40.7		0.02
027SE	2021-11-25T23:30:00Z	3:30	PM		61.29		8.17		19.81	22.8		38.54	44.35		0.01
027SE	2021-11-25T23:40:00Z	3:40	PM		61.27		8.13		18.72	21.54		28.13	32.37		-0.11
027SE	2021-11-25T23:50:00Z	3:50	PM		61.22		8.05		19.12	22		35.75	41.14		-0.35
027SE	2021-11-26T00:00:00Z	4:00	PM		61.26		7.98		15.83	18.22		25.52	29.37		-0.5
027SE	2021-11-26T00:10:00Z	4:10	PM		61.27		7.83		18.18	20.92		28.82	33.17		-0.89
027SE	2021-11-26T00:20:00Z	4:20	PM		61.16		7.78		17.02	19.59		31.11	35.8		-1.1
027SE	2021-11-26T00:30:00Z	4:30	PM		60.9		7.89		16.92	19.47		24.89	28.64		-1.01
027SE	2021-11-26T00:40:00Z	4:40	PM		60.32		8.14		17.79	20.47		29.02	33.4		-0.8
027SE	2021-11-26T00:50:00Z	4:50	PM		59.89		8.32		15.79	18.17		23.31	26.82		-0.67
027SE	2021-11-26T01:00:00Z	5:00	PM		59.61		8.44		13.96	16.06		21.27	24.48		-0.59
027SE	2021-11-26T01:10:00Z	5:10	PM		59.43		8.51		13.94	16.04		26.35	30.32		-0.55
027SE	2021-11-26T01:20:00Z	5:20	PM		59.23		8.52		12.63	14.53		21.59	24.85		-0.68
027SE	2021-11-26T01:30:00Z	5:30	PM		59.29		8.45		13.88	15.97		20.89	24.04		-0.81
027SE	2021-11-26T01:40:00Z	5:40	PM		59.34		8.34		14.08	16.2		21.84	25.13		-1.04
027SE	2021-11-26T01:50:00Z	5:50	PM		59.41		8.24		13.62	15.67		22.41	25.79		-1.24
027SE	2021-11-26T02:00:00Z	6:00	PM		59.2		8.21		10.61	12.21		17.78	20.46		-1.47
027SE	2021-11-26T02:10:00Z	6:10	PM		59.28		8.14		11.23	12.92		19.49	22.43		-1.59
027SE	2021-11-26T02:20:00Z	6:20	PM		59.69		7.95		11.96	13.76		19.24	22.14		-1.77
027SE	2021-11-26T02:30:00Z	6:30	PM		59.77		7.88		12.59	14.49		26.1	30.04		-1.89
027SE	2021-11-26T02:40:00Z	6:40	PM		59.96		7.88		12.04	13.86		21.33	24.55		-1.74
027SE	2021-11-26T02:50:00Z	6:50	PM		59.93		7.93		12.67	14.58		20.76	23.89		-1.64
027SE	2021-11-26T03:00:00Z	7:00	PM		59.96		7.96		12.37	14.24		18.8	21.63		-1.54
027SE	2021-11-26T03:10:00Z	7:10	PM		59.79		8.05		12.79	14.72		21.65	24.91		-1.43
027SE	2021-11-26T03:20:00Z	7:20	PM		59.77		8.17		15.69	18.06		23.94	27.55		-1.14
027SE	2021-11-26T03:30:00Z	7:30	PM		59.92		8.34		18.53	21.32		30.61	35.23		-0.6
027SE	2021-11-26T03:40:00Z	7:40	PM		59.75		8.46		17.01	19.57		25.21	29.01		-0.43
027SE	2021-11-26T03:50:00Z	7:50	PM		59.59		8.5		15.2	17.49		26.03	29.95		-0.46
027SE	2021-11-26T04:00:00Z	8:00	PM		59.6		8.46		14.43	16.61		23.62	27.18		-0.55
027SE	2021-11-26T04:10:00Z	8:10	PM		59.71		8.57		13.1	15.08		21.27	24.48		-0.19
027SE	2021-11-26T04:20:00Z	8:20	PM		59.68		8.63		13.14	15.12		26.67	30.69		-0.07
027SE	2021-11-26T04:30:00Z	8:30	PM		60.06		8.64		15.99	18.4		29.46	33.9		0.24
027SE	2021-11-26T04:40:00Z	8:40	PM		59.91		8.81		15.84	18.23		23.75	27.33		0.53
027SE	2021-11-26T04:50:00Z	8:50	PM		59.77		8.9		16.14	18.57		27.94	32.15		0.64
027SE	2021-11-26T05:00:00Z	9:00	PM		59.7		8.85		13.22	15.21		20.83	23.97		0.47
027SE	2021-11-26T05:10:00Z	9:10	PM		59.68		8.83		13.55	15.59		21.33	24.55		0.41
027SE	2021-11-26T05:20:00Z	9:20	PM		59.49		8.93		11.51	13.25		19.87	22.87		0.5
027SE	2021-11-26T05:30:00Z	9:30	PM		59.86		8.8		11.16	12.84		19.87	22.87		0.47
027SE	2021-11-26T05:40:00Z	9:40	PM		59.59		8.93		9.76	11.23		17.97	20.68		0.57
027SE	2021-11-26T05:50:00Z	9:50	PM		59.33		8.92		10.52	12.11		16.19	18.63		0.35
027SE	2021-11-26T06:00:00Z	10:00	PM		59.52		8.8		11.09	12.76		16.82	19.36		0.21
027SE	2021-11-26T06:10:00Z	10:10	PM		59.66		8.72		12.85	14.79		19.3	22.21		0.13
027SE	2021-11-26T06:20:00Z	10:20	PM		59.79		8.73		12.9	14.85		21.08	24.26		0.25
027SE	2021-11-26T06:30:00Z	10:30	PM		59.71		8.87		13.92	16.02		23.62	27.18		0.52
027SE	2021-11-26T06:40:00Z	10:40	PM		58.95		9.2		12.07	13.89		19.05	21.92		0.71
027SE	2021-11-26T06:50:00Z	10:50	PM		58.47		9.44		13.82	15.9		29.08	33.46		0.88
027SE	2021-11-26T07:00:00Z	11:00	PM		57.79		9.71		14.36	16.53		25.27	29.08		0.94
027SE	2021-11-26T07:10:00Z	11:10	PM		57.27		9.85		13.45	15.48		22.03	25.35		0.84
027SE	2021-11-26T07:20:00Z	11:20	PM		56.58		10.08		13.67	15.73		23.94	27.55		0.79
027SE	2021-11-26T07:30:00Z	11:30	PM		55.81		10.37		13.65	15.71		19.87	22.87		0.79
027SE	2021-11-26T07:40:00Z	11:40	PM		55.85		10.39		14.03	16.15		23.68	27.25		0.86
027SE	2021-11-26T07:50:00Z	11:50	PM		55.92		10.39		13.67	15.73		21.59	24.85		0.92
027SE	2021-11-26T08:00:00Z	12:00	AM		55.55		10.54		13.47	15.5		22.66	26.08		0.93
027SE	2021-11-26T08:10:00Z	12:10	AM		55.26		10.67		13.1	15.08		21.27	24.48		0.96
027SE	2021-11-26T08:20:00Z	12:20	AM		55.45		10.64		11	12.66		20.32	23.38		1.05
027SE	2021-11-26T08:30:00Z	12:30	AM		54.52		10.93		12.5	14.38		19.81	22.8		0.89
027SE	2021-11-26T08:40:00Z	12:40	AM		54.15		11.03		12.92	14.87		18.92	21.77		0.79
027SE	2021-11-26T08:50:00Z	12:50	AM		54.67		10.87		13.76	15.83		24.13	27.77		0.89
027SE	2021-11-26T09:00:00Z	1:00	AM		54.7		10.84		14.32	16.48		20.76	23.89		0.86
027SE	2021-11-26T09:10:00Z	1:10	AM		53.54		11.21		12	13.81		18.8	21.63		0.65
027SE	2021-11-26T09:20:00Z	1:20	AM		52.38		11.62		11.5	13.23		20.57	23.67		0.5
027SE	2021-11-26T09:30:00Z	1:30	AM		52.82		11.48		11.23	12.92		20.13	23.17		0.59
027SE	2021-11-26T09:40:00Z	1:40	AM		52.53		11.6		8.83	10.16		13.84	15.93		0.58
027SE	2021-11-26T09:50:00Z	1:50	AM		52.32		11.7		8.3	9.55		12.83	14.76		0.59
027SE	2021-11-26T10:00:00Z	2:00	AM		52.89		11.45		11.44	13.16		15.11	17.39		0.59
027SE	2021-11-26T10:10:00Z	2:10	AM		53.03		11.44		12.56	14.45		17.4	20.02		0.68
027SE	2021-11-26T10:20:00Z	2:20	AM		53.11		11.35		15.86	18.25		21.2	24.4		0.58
027SE	2021-11-26T10:30:00Z	2:30	AM		53.52		11.27		15.88	18.27		22.66	26.08		0.75

027SE	2021-11-26T10:30:00Z	2:30	AM		53.52		11.27		15.88	18.27	22.66	26.08		0.75
027SE	2021-11-26T10:40:00Z	2:40	AM		53.77		11.24		14.78	17.01	21.27	24.48		0.89
027SE	2021-11-26T10:50:00Z	2:50	AM		52.45		11.83		11.26	12.96	15.24	17.54		0.93
027SE	2021-11-26T11:00:00Z	3:00	AM		52.33		11.93		13.56	15.6	18.99	21.85		1.01
027SE	2021-11-26T11:10:00Z	3:10	AM		53.45		11.62		14.1	16.23	21.46	24.7		1.34
027SE	2021-11-26T11:20:00Z	3:20	AM		55.71		10.9		18.27	21.02	28.76	33.1		1.76
027SE	2021-11-26T11:30:00Z	3:30	AM		55.91		10.82		19.68	22.65	29.59	34.05		1.76
027SE	2021-11-26T11:40:00Z	3:40	AM		55.35		11.04		19.55	22.5	25.59	29.45		1.75
027SE	2021-11-26T11:50:00Z	3:50	AM		55.06		11.19		18.82	21.66	26.67	30.69		1.81
027SE	2021-11-26T12:00:00Z	4:00	AM		55.1		11.26		18.31	21.07	26.67	30.69		1.97
027SE	2021-11-26T12:10:00Z	4:10	AM		55.29		11.26		18.28	21.04	25.27	29.08		2.12
027SE	2021-11-26T12:20:00Z	4:20	AM		54.68		11.53		12.41	14.28	17.78	20.46		2.14
027SE	2021-11-26T12:30:00Z	4:30	AM		54.69		11.61		11.92	13.72	18.22	20.97		2.3
027SE	2021-11-26T12:40:00Z	4:40	AM		55.24		11.49		14.5	16.69	22.1	25.43		2.51
027SE	2021-11-26T12:50:00Z	4:50	AM		55.43		11.51		14.57	16.77	21.02	24.19		2.7
027SE	2021-11-26T13:00:00Z	5:00	AM		55.31		11.49		16.01	18.42	22.16	25.5		2.56
027SE	2021-11-26T13:10:00Z	5:10	AM		55.15		11.43		15.06	17.33	19.74	22.72		2.33
027SE	2021-11-26T13:20:00Z	5:20	AM		55		11.4		11.55	13.29	16	18.41		2.15
027SE	2021-11-26T13:30:00Z	5:30	AM		55.76		10.99		12.11	13.94	17.84	20.53		1.98
027SE	2021-11-26T13:40:00Z	5:40	AM		55.63		10.99		12.31	14.17	17.14	19.72		1.87
027SE	2021-11-26T13:50:00Z	5:50	AM		55.63		10.89		15.69	18.06	20.2	23.25		1.68
027SE	2021-11-26T14:00:00Z	6:00	AM		55.47		10.83		14.25	16.4	19.05	21.92		1.44
027SE	2021-11-26T14:10:00Z	6:10	AM		55.43		10.58		15.01	17.27	18.8	21.63		0.92
027SE	2021-11-26T14:20:00Z	6:20	AM		55.54		10.19		19.01	21.88	25.52	29.37		0.21
027SE	2021-11-26T14:30:00Z	6:30	AM		55.76		9.99		20.93	24.09	28.07	32.3		-0.03
027SE	2021-11-26T14:40:00Z	6:40	AM		55.22		10.12		17.45	20.08	22.98	26.44		-0.18
027SE	2021-11-26T14:50:00Z	6:50	AM		54.7		10.23		16.03	18.45	18.92	21.77		-0.36
027SE	2021-11-26T15:00:00Z	7:00	AM		55.51		9.78		13.59	15.64	16.26	18.71		-0.67
027SE	2021-11-26T15:10:00Z	7:10	AM		55.83		9.6		12.94	14.89	16.38	18.85		-0.81
027SE	2021-11-26T15:20:00Z	7:20	AM		56.78		9.19		11.06	12.73	15.81	18.19		-0.98
027SE	2021-11-26T15:30:00Z	7:30	AM		57.69		8.91		7.72	8.88	14.42	16.59		-0.93
027SE	2021-11-26T15:40:00Z	7:40	AM		58.49		8.7		4.72	5.43	8.95	10.3		-0.81
027SE	2021-11-26T15:50:00Z	7:50	AM		59.69		8.36		7.96	9.16	15.17	17.46		-0.73
027SE	2021-11-26T16:00:00Z	8:00	AM		60.64		8.13		5.45	6.27	12.7	14.61		-0.58
027SE	2021-11-26T16:10:00Z	8:10	AM		60.99		8.13		3.94	4.53	10.1	11.62		-0.32
027SE	2021-11-26T16:20:00Z	8:20	AM		60.94		8.27		4.69	5.4	13.9	16		0
027SE	2021-11-26T16:30:00Z	8:30	AM		59.97		8.55		0	0	0	0		-0.04
027SE	2021-11-26T16:40:00Z	8:40	AM		59.4		8.77		0	0	0	0		0.05
027SE	2021-11-26T16:50:00Z	8:50	AM		58.81		9.08		0	0	0	0		0.32
027SE	2021-11-26T17:00:00Z	9:00	AM		58.09		9.42		0	0	0	0		0.54
027SE	2021-11-26T17:10:00Z	9:10	AM		58.01		9.6		0	0	0	0		0.88
027SE	2021-11-26T17:20:00Z	9:20	AM		57.41		9.96		0	0	0	0		1.18
027SE	2021-11-26T17:30:00Z	9:30	AM		57.55		10.09		0	0	0	0		1.57
027SE	2021-11-26T17:40:00Z	9:40	AM		57.85		10		0	0	0	0		1.61
027SE	2021-11-26T17:50:00Z	9:50	AM		57.53		10.23		0	0	0	0		1.84
027SE	2021-11-26T18:00:00Z	10:00	AM		57.61		10.25		0	0	0	0		1.94
027SE	2021-11-26T18:10:00Z	10:10	AM		58.51		9.95		0	0	0	0		2.02
027SE	2021-11-26T18:20:00Z	10:20	AM		59.88		9.41		0	0	0	0		1.9
027SE	2021-11-26T18:30:00Z	10:30	AM		61.7		8.59		0	0	0	0		1.37
027SE	2021-11-26T18:40:00Z	10:40	AM		62.07		8.56		8.85	10.18	23.43	26.96		1.58
027SE	2021-11-26T18:50:00Z	10:50	AM		61.82		8.62		17.63	20.29	23.24	26.74		1.54
027SE	2021-11-26T19:00:00Z	11:00	AM		62.01		8.61		14.21	16.35	21.2	24.4		1.66
027SE	2021-11-26T19:10:00Z	11:10	AM		62.35		8.64		15.09	17.37	24.83	28.57		1.99
027SE	2021-11-26T19:20:00Z	11:20	AM		62.27		8.69		15.63	17.99	24.64	28.36		2.05
027SE	2021-11-26T19:30:00Z	11:30	AM		62.97		8.55		13.36	15.37	20.06	23.08		2.24
027SE	2021-11-26T19:40:00Z	11:40	AM		63.52		8.48		13.29	15.29	20.32	23.38		2.49
027SE	2021-11-26T19:50:00Z	11:50	AM		63.33		8.55		15.52	17.86	25.27	29.08		2.51
027SE	2021-11-26T20:00:00Z	12:00	PM		63.54		8.52		16.88	19.43	23.81	27.4		2.6

ACTON TOWN COUNCIL
P.O.Box 810, Acton CA 93510

Director L. Palmer
Safety and Enforcement Division,
California Public Utilities Commission
505 Van Ness Avenue,
San Francisco, California, 94102
Electronic transmission of 25 (twenty-five) pages to:
leslie.palmer@cpuc.ca.gov

April 30, 2021

Subject: The Acton Town Council Comments on the Amended Version of Southern California Edison's Post-Event Report dated December 21, 2020.

Reference: SCE De-energization Events of November 29 – December 4, 2020.

Honorable Director Palmer;

The Acton Town Council ("ATC") respectfully submits the enclosed comments on Southern California Edison's ("SCE'S") Amended version of the Post-Event Report describing "Public Safety Power Shutoff" ("PSPS") activities between November 29 – December 4, 2020 that is dated December 21, 2020. On April 15, 2021, the Safety and Enforcement Division granted the ATC's request for an extension of time to submit the comments on the Amended Reports on or before April 30, 2021. Accordingly, we ask that these comments be deemed timely filed. The ATC will also distribute these comments to those on the Service List for R.18-12-005.

Please note: All prior comments that were submitted by the ATC on January 5, 2021 in response to SCE's original Post Event Report addressing the November 29 – December 4, 2020 PSPS activities are still applicable and are incorporated herein by reference.

SCE'S PSPS EVENTS INVOLVING THE "SHOVEL" CIRCUIT ON DECEMBER 2- 3 VIOLATED ESRB-8 AND MASK STRUCTURAL DEFFICIENCIES THAT VIOLATE GO-95.

In General Order 95, the Commission adopted structural standards which require SCE's distribution equipment in Acton to withstand windspeeds substantially greater than 56 mph (D.14-02-015, D.14-12-089) and, in Resolution ESRB-8, the Commission restricted the use of PSPS to only circumstances where "strong winds" pose an "imminent and significant risk" of "toppling" electrical equipment or causing "vegetation related impacts" due to

windborne debris. The National Weather Service recognizes the "Beaufort Scale" which clarifies that winds must exceed 39 mph before twigs will even break off trees[1]; thus, there is no "imminent and significant risk" of "vegetation related impacts" on electrical facilities until windspeeds exceed 40 mph. Taken together, these facts demonstrate that PSPS events are never warranted in heavily vegetated areas unless and until windspeeds exceed 40 mph, and in areas of low vegetation where there is little risk of "vegetation related impacts", PSPS events are not warranted until windspeeds exceed 50 mph.

During the PSPS events of December 2-3, 2020, SCE cut power to the "Shovel" circuit **for more than 27 hours** according to page 10 of the Amended Report. And, according to page 21, throughout that entire time, wind gusts never exceeded 39.9 mph and sustained wind speeds never exceeded 23.4 mph. Worse yet, the PSPS thresholds that SCE established on the "Shovel" circuit for the December 2-3 PSPS events were only 25 mph (sustained) and 40 mph (gusts). These windspeeds do not pose any risk of "toppling" equipment or causing "vegetation related impacts", and SCE explicitly violated ESRB-8 restrictions when it relied on these thresholds to de-energize the "Shovel" circuit for more than 27 hours on December 2, 2020.

The ATC recently learned that the PSPS windspeed thresholds which SCE applies in Acton are established based on the fact that there are hundreds of structural deficiencies on the distribution circuits in Acton (see Attachment A), and because SCE is concerned that the equipment will experience mechanical failure at windspeeds of 40 mph or more (see Attachment B). Therefore, SCE's distribution equipment in Acton does not comply with Commission-adopted structural standards. SCE uses PSPS to mask these GO-95 violations by de-energizing Acton circuits based on windspeed thresholds that violate ESRB-8. SCE must be held accountable for the ESRB-8 violations that occurred when SCE de-energized the "Shovel" circuit in Acton on December 2, 2020. SCE must also be held accountable for the ongoing and persistent GO-95 violations that continue to exist in Acton.

SCE'S PSPS EVENTS INVOLVING THE "PICK" CIRCUIT ON DECEMBER 2- 3 VIOLATED ESRB-8 AND D.19-05-042 REQUIREMENTS THAT PSPS IMPACTS BE MINIMIZED.

Commission Resolution ESRB-8 and Decision 19-05-042 require SCE to minimize the scope and extent of PSPS events by implementing alternative measures, including (but not limited to) sectionalization. SCE's PSPS activities on December 3 involving the "Pick" circuit in Acton reveal that SCE violated this requirement. Specifically, on December 3, SCE cut power on Segments 4 and 5 of the Pick circuit, and according to page 21 of SCE's Amended Report, SCE did so based on weather data from the "Red Rover Mine" weather station. However, the Red Rover Mine weather station is located at the end of a box canyon where it only monitors local conditions on "Segment 4" of the "Pick" circuit (as shown on the "Pick"

[1] See https://www.weather.gov/mfl/beaufort

circuit map provided in Figure 1). Because of its remote canyon location, conditions reported by the "Red Rover Mine" weather station are not indicative of conditions on other portions of the Pick circuit. The map provided in Figure 1 also shows that Segment 4 of the "Pick Circuit" can be isolated and de-energized without affecting other portions of the "Pick" circuit if local conditions reported by the Red Rover Mine weather station warrant. Accordingly, SCE should not have de-energized Segment 5 of the "Pick" circuit on December 3 based on wind speed measurements at the Red Rover Mine station; instead, SCE should have employed sectionalization and de-energized just "Pick" Segment 4 and allowed Segment 5 to remain energized. Furthermore, and as shown by the December 3 windspeed data provided in Attachment C that was collected from the "Acton" weather station (which is also shown in Figure 1) windspeeds did not exceed 21.4 mph (sustained) or 37.3 mph (gusts), so de-energizing other "Pick" segments was not warranted. Taken together, these facts reveal that SCE did not reasonably rely on sectionalization of the "Pick" circuit as required by ESRB-8 to reduce PSPS impacts on December 3, 2020.

CONCLUSION

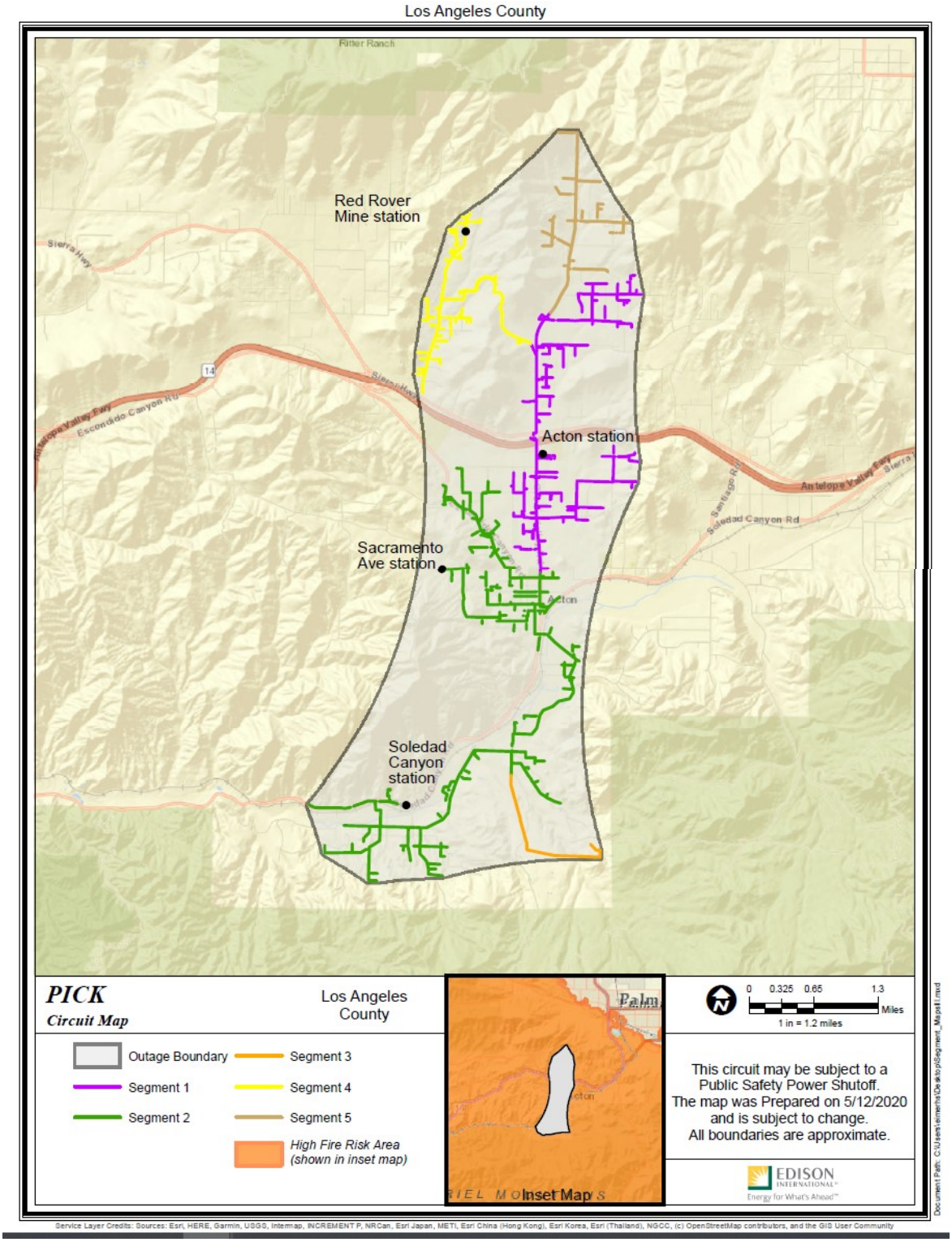
For all the reasons enumerated above as well as those reasons previously provided in our comments submitted on January 5, 2021, the ATC respectfully requests that the Commission determine that SCE's PSPS events in Acton between November 29 – December 4, 2020 were not reasonable and did not comport with Commission requirements. We further request that fines be imposed on SCE per Public Utilities Code Section 2107; Specifically, the Acton Town Council is asking for fines in the amount of $500 for every Acton resident who was de-energized for each 24-hour period and every additional fraction thereof on December 2-3, 2020. This is reasonable, because SCE perpetrated an individual offense on each affected customer; these fines should be paid as restitution to the Acton residents who were affected. In addition, SCE should compensate the Acton-Agua Dulce School District for every day that the schools had to close because residents could not participate in "Distance learning" due to the loss of power.

The Acton Town Council appreciates your efforts on behalf of the Community of Acton and we are grateful that the Commission is interested in the welfare of Acton residents. If you have any questions regarding the information provided above or require additional information, please contact me at atc@actontowncouncil.org.

Sincerely,

/S/ Jeremiah Owen
Jeremiah Owen, President
The Acton Town Council

Figure 1. Pick Circuit Map Showing Locations of Weather Stations in the Area.



ATTACHMENT A
SCE'S RESPONSE TO THE ACTON TOWN COUNCIL'S DISCOVERY REQUEST.

Southern California Edison
R.18-12-005 – PSPS OIR

DATA REQUEST SET Acton-SCE-001

To: Acton
Prepared by: Nathanael Gonzalez
Job Title: Senior Advisor
Received Date: 2/16/2021

Response Date: 2/23/2021

Question 004:
Please describe in detail the methodologies and provide the calculations that were used to derive the following information provided on pages 7 and 8 of "Attachment A" that was included in SCE's Post Event Report dated February 4, 2021:
a) The "FPI Value" of 12.88 reported for the "Shovel" circuit on page 7.
b) The "FPI Value" of 12.8 reported for the "Shovel" circuit on page 8.
c) The "FPI Value" of 12.82 reported for the "Pick" circuit on page 8.
d) The 108% value reported for the "Shovel" circuit reported on page 7.
e) The 90% value reported for the "Shovel" circuit reported on page 8.
f) The 109% value reported for the "Pick" circuit reported on page 8.
g) The 25/40 mph "threshold" for the "Shovel" circuit reported on page 7.
h) The 31/46 mph "threshold" for the "Shovel" circuit reported on page 8.
i) The 31/46 mph "threshold" for the "Pick" circuit reported on page 8.
j) The 23/36 mph "Adjusted trigger" for the "Shovel" circuit reported on page 7.
k) The 28/41 mph "Adjusted trigger" for the "Shovel" circuit reported on page 8.
l) The 28/41 mph "Adjusted trigger" for the "Pick" circuit reported on page 8.

Response to Question 004:

Response to Parts a, b, c:

SCE uses an expert atmospheric modeling vendor, Atmospheric Data Solutions (ADS), to provide forecasts of FPI for all circuits in the high fire risk area, at the hundredths level. SCE's expert meteorologists use the best available model guidance from multiple public and proprietary data sources to refine and calibrate the forecasted FPI to reflect the most accurate integration of available data for the forecasted period of concern. These refined FPI values are used to determine which circuits are forecast to potentially breach PSPS criteria during the event, and the values are recorded on SCE's monitored circuit list for all circuits potentially subject to PSPS de-energization. In many cases, these initial estimated FPI values are then further refined in real-time during the period of concern based on careful consideration of quantitative and qualitative factors by SCE's meteorologists and operations experts.

The FPI values that are included in post-event reports represent the best estimate of FPI at the time of de-energization. In some cases, this value is taken directly from the monitored circuit list, and in many other cases, SCE records the real-time expected FPI value that was determined at the time of de-energization by meteorology and operations professionals.

SCE is unable to provide the specific inputs that were used at the time of de-energization to compute the real-time FPI because these decisions are highly dynamic, event specific, and based on professional judgement of meteorology and operations staff at the time of the event. In addition, the individual components that are used by ADS to calculate FPI are not retained by SCE.

Please see the "Definitions" section below for the equation used to calculate FPI. If Acton Town Council would prefer, SCE team is available to answer any follow-up questions via a conference call.

Response to Part d:

The 108% value reported for the Shovel circuit on page 7 was derived by comparing the de-energization trigger value to the actual windspeed at the time of de-energization, 43.5/40 * 100 = ~108%.

(Actual Windspeed mph/Mph Gust Trigger * 100 = x)

Response to Part e:

The 90% value reported for the Shovel circuit on page 8 was derived by comparing the de-energization trigger value to the actual windspeed at the time of de-energization, 36.9/41 * 100 = 90%.

(Actual Windspeed mph/Mph Gust Trigger * 100 = x)

Response to Part f:

The 109% value reported for the Pick circuit on page 8 was derived by comparing the de-energization trigger value to the actual windspeed at the time of de-energization, 44.57/41 * 100 = ~108%.

(Actual Windspeed mph/Mph Gust Trigger * 100 = x)

Response to Part g:

The 25/40 mph value provided for the Shovel circuit on page 7 in the Post-Event Report was incorrect. The correct threshold value for the Shovel circuit as of December 16, 2020, should have been 31/46 mph. Despite this change, actual wind speeds and real-time conditions breached the correct de-energization trigger value, at which point the circuit was deenergized.

Response to Part h and i:

SCE sets its PSPS activation and notification thresholds as the lower of the 99th percentile wind speed for the local area of the circuit, or the National Weather Service (NWS) wind advisory levels capped at 31/46 mph, (set at the wind speeds where debris fly-ins become a concern). Wind speed thresholds may also be adjusted based on other factors or circuit design.

Response to Parts j, k, and l:

Triggers are determined by multiplying a discount factor that is informed by FPI, circuit health and ignition consequence modeling (REAX score) to the baseline threshold. Discount multipliers range

from 0.8 to 1.0 and the Baseline Threshold is the lower of NWS Advisory (31/46) or 99th % historical. (Baseline Threshold) * (Discount multiplier) = Trigger value.

See the "Definitions" section below for additional information.

Response to Part j:

Starting factors for the Shovel circuit were: FPI of 12.88, Sustained (Baseline) Threshold: 25 mph, (Baseline) Gust Threshold: 40 mph, High P2s: 124, Long Span Count: 33, REAX: Highest.

The Sustained (Baseline) Threshold and the (Baseline) Gust Threshold were multiplied by 0.9, the determined multiplier.

(25 mph * 0.9) = 22.5, rounded to 23 mph wind trigger, and (40 mph * 0.9) = 36 mph wind trigger, yielding the "Adjusted trigger" for the Shovel circuit as reported on page 7.

Response to Part k:

Starting factors for the Shovel circuit were: FPI of 12.8, Sustained (Baseline) Threshold: 31 mph, (Baseline) Gust Threshold: 46 mph, High P2s: 209, Long Span Count: 33, REAX: Highest.

The Sustained (Baseline) Threshold and the (Baseline) Gust Threshold were multiplied by 0.9, the determined multiplier.

(31 mph * 0.9) = 27.9, rounded to 28 mph wind trigger, and (46 mph * 0.9) = 41.4, rounded to 41 mph wind trigger, yielding the "Adjusted trigger" for the Shovel circuit as reported on page 8.

Response to Part l:

Starting factors for the Pick circuit were: FPI of 12.82, Sustained (Baseline) Threshold: 31 mph, (Baseline) Gust Threshold: 46 mph, High P2s: 253, Long Span Count: 1, REAX: Highest.

The Sustained (Baseline) Threshold and the (Baseline) Gust Threshold were multiplied by 0.9, the determined multiplier.

(31 mph * 0.9) = 27.9, rounded to 28 mph wind trigger, and (46 mph * 0.9) = 41.4, rounded to 41 mph wind trigger, yielding the "Adjusted trigger" for the Pick circuit as reported on page 8.

Definitions

The Fire Potential Index (FPI) is a tool that is used to estimate fire potential across the landscape based on weather and fuel (vegetation) condition, and is calculated as:

$$FPI = \left(\frac{DL}{LFM} + G\right) FLx + Wx$$

The index is forecast at the circuit level twice per day out to 5 days at a 3-hourly temporal

resolution. Individual components of the FPI score are forecast hourly for each grid cell by a 2km WRF (Weather Research and Forecasting) model that has been optimized to best capture weather and fire weather conditions in Southern California Edison's territory. The grid cell forecasts associated with each of the FPI components are then summarized by circuit for three-hour forecast periods. Meteorologists and Fire Scientists may adjust the FPI score as needed based on observations, fuel sampling, additional weather models and climatology.

These forecast variables used to generate FPI score are forecast for each hour:

- Wind Speed
- Dewpoint Depression
- Energy Release Component
- 10-hour dead fuel moisture
- 100-hour dead fuel moisture
- Live fuel moisture
- Normalized Difference Vegetation Index

The individual components of the FPI equation are as follows:

- DL is the dryness level which is comprised of the Energy Release Component and the 10-hour dead fuel moisture time-lag.
- LFM is the moisture content of the living vegetation.
- G is the degree of green-up of the annual grass based on the Normalized Difference Vegetation Index (NDVI).
- FLx is the fuel loading modifier associated with low, moderate, and heavy fuel loading corresponding to .5, .75, and 1 respectively. This represents a measure of the amount of vegetation on the ground.
- Wx is the weather component of the FPI, also known as the weather score, and references a lookup table of paired sustained wind speed and dew point depression (representative of the dryness of the air) values as in the figure below. The value ranges from 0 to 6.

FPI Weather Component (Wx)							
		Wind Speed (mph)					
		<=5	6-10	11-16	17-22	23-28	>=29
Dew Point Depression	>=50	2	3	3	4	5	6
	40-49	2	2	3	3	4	5
	30-39	1	2	2	3	3	4
	20-29	1	1	2	2	3	3
	10-19	0	0	1	1	1	1
	<10	0	0	0	0	0	0

The full FPI output ranges from 1 to 17 which has been broken in three categories: Normal (1-11.99), Elevated (12-14.99), and Extreme (15+).

Triggers: SCE's de-energization decisions are made on a circuit-by-circuit basis, often on a sub-circuit level, only when current conditions in the immediate area warrant action. De-energization

wind speed triggers are unique to each circuit and are dynamic based on evolving environmental and circuit-specific characteristics. Some factors that are taken into consideration when setting de-energization triggers include wind speed, FPI, ignition consequence modeling, circuit conditions, length of conductor, and other technical characteristics for the applicable circuit. The IMT takes characteristics such as a higher FPI, multiple historical outages or outstanding maintenance items into account when determining if wind speed thresholds for recommending de-energization should be modified.

Rounded FPI are used as inputs for calculating the potential sustained wind and potential gust triggers. The "Peak FPI" is rounded to the nearest whole number to determine the "Rounded FPI." In cases where the "Peak FPI" ends in ".5", the value will be rounded up (e.g., a Peak FPI of 14.5 will be rounded to 15).

Once the Rounded FPI value is determined, a Multiplier is applied per the table below

Rounded FPI	Multiplier (X)
15+	0.8
14	0.85
13	0.9
12	0.95
<12	1

Table 1 – Rounded FPI and Multipliers

Circuit Health (Based on SCE's inspection and remediation program for all SCE's electrical infrastructure):

SCE remediates anything that is imminently about to fail (P1s) regardless of weather and fuel conditions for safety and reliability. Medium risk (P2s) items are typically items that will fail within 6 to 12 months in SCE's High Fire Risk Area. However, medium risk (P2s) items can become a high-risk issue due to other factors such as weather and fuel. These set of medium risk issues are reclassified as higher risk and are remediated more quickly than the 6- and 12-month timelines.

High P2s and Long Spans. The calculation then considers whether a circuit has High P2s or Long Spans. This value is calculated as "True" if there are any High P2s on the circuit or if the circuit has Long Span conditions.

REAX Score. The calculation also considers whether a circuit has a High REAX. The value is "True" if a circuit's REAX is "High" or "Highest."

Once these values are set, the change to the multiplier is determined based on the potential severity. The table below shows the outcome of each scenario.

High P2s OR Long Spans	High Reax	Net Change to X (Never above 1)
True	True	No Change
True	False	+0.05
False	True	No Change
False	False	+0.10

Table 2 – Modified Multiplier Determination

Covered Conductor Calculations: In cases where we do not have a circuit that is fully covered with Covered Conductor, we will use the table below to modify our multiplier.

High P2s OR Long Spans	High Reax	Net Change to X (Never above 1)
True	True	+0.05
True	False	+0.05
False	True	+0.10
False	False	+0.10

After determining the modified multiplier, we must determine if it's to be applied to the circuit's "Wind/Gust Threshold" or its "99th Percentile" threshold. The "Wind/Gust Threshold" is determined by historical wind-related outages and the "99th Percentile" threshold is determined by the 99th percentile of historical wind speeds recorded for the circuit. Based off the High P2s, Long Spans, and REAX for each circuit, we determine which set of thresholds to use as shown in Table 3 below.

High P2s OR Long Spans	High Reax	Trigger is Multiplied to
True	True	Wind/Gust Threshold
True	False	99th Percentile
False	True	99th Percentile
False	False	99th Percentile

Table 3 – Wind/Gust vs. 99th Percentile Thresholds

Covered Conductor Exception: In cases where we have a fully covered circuit, we will apply the multiplier to the High Wind Warning levels provided by the National Weather Service of 40 mph for sustained winds and 58 mph for wind gusts. The following table shows the case for all completely covered circuits.

High P2s OR Long Spans	High Reax	Trigger is Multiplied to
True	True	NWS High Wind Warning
True	False	NWS High Wind Warning
False	True	NWS High Wind Warning
False	False	NWS High Wind Warning

The Sustained Wind Trigger and Gust Trigger are determined by applying the multiplier to the Wind/Gust Threshold or 99th Percentile. The Sustained Wind Trigger cannot exceed 40 mph and the Gust Trigger cannot exceed 58 mph, respectively.

SUMMARY OF CONVERSATION ON FEBRUARY 26, 2021 BEGINNING AT APPROXIMATELY 3 PM BETWEEN SCE STAFF AND JACQUELINE AYER ON BEHALF OF THE ACTON TOWN COUNCIL REGARDING DATA REQUEST #1. SCE CLARIFICATIONS ARE INDICATED IN ITALICS

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SCE will be replacing all of the distribution lines in Acton with covered conductor, even if the maps provided in response to the Acton Town Council's Data Request 1 indicated that portions of some lines will not be retrofit (including the line to Hauser Mountain as shown in the attached figure). I pointed out that Hauser mountain is a critical link to communication platforms in the area, and SCE is constantly cutting power to it. SCE staff said they want to hear about these types of circuits so they can be addressed.

SCE clarifies that the Bootlegger circuit is currently planned to have its overhead distribution lines completely covered by 9/1/2021. However, the other overhead distribution lines in Acton, which are the Pick and Shovel circuits, are not currently planned to be completely covered by 9/1/2021. The Hauser mountain area is served by the Shovel circuit.

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SCE confirmed that the following is correct:

Starting factors for the Shovel circuit were: FPI of 12.88, Sustained (Baseline) Threshold: ~~25~~ 31 mph, (Baseline) Gust Threshold: ~~40~~ 46 mph, High P2s: 124, Long Span Count: 33, REAX: Highest.

The Sustained (Baseline) Threshold and the (Baseline) Gust Threshold were multiplied by 0.9, the determined multiplier.

(~~25~~ 31 mph * 0.9) = ~~22.5~~ 27.9, rounded to ~~23~~ 28 mph wind trigger, and (~~40~~ 46 mph * 0.9) = ~~36~~ 41.4 mph wind trigger, yielding the correct "Adjusted trigger" for the Shovel circuit as ~~reported on page 7~~ 28/41.4.

The correct value for the "Trigger Percentage" reported for the Shovel Circuit on page 7 of Attachment A is 105% rather than 108%.

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"Failure" of a circuit item is a broken pole or a broken cross arm.

P2 denotes an item that will fail within 6-12 months within SCE's High Fire Risk Area. High P2 means a P2 that can be exacerbated by wind. A high P2 is a P2 item that, under high wind conditions, could fail before the 6–12-month window.

SCE clarifies that a broken pole or broken cross arm are two examples of types of "failure" or damage on SCE's system. According to the Commission's General Order (GO) 95 and SCE's Distribution and Transmission Inspection Management

Programs, SCE remediates any P1 findings regardless of weather and fuel conditions. P1 findings refers to safety and/or reliability risks with a high probability for significant impact found through inspections that require immediate action. P2 findings do not necessarily mean that the equipment will fail within 6-12 months, but that SCE must repair the deficiency within the GO 95 mandated time period to comply with its maintenance requirements. P2 findings refer to safety and/or reliability risks with variable requirements in terms of time to remediate where SCE is required to complete P2 findings in HFRA Tier 3 locations within 6 months that create a fire risk and P2 findings within Tier 2 locations within 12 months that create a fire risk.

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The purpose of the first data request was to get an understanding of how SCE establishes PSPS thresholds: PSPS Trigger levels in Acton are driven by the FPI, the number of high P2s, the REAX, and the 31/46 mph threshold established by the National Weather Service as being the point at which wind-driven debris could be problematic.

SCE clarifies that it establishes the multipliers for reduction and prioritization based on FPI, long spans and circuit conditions with high priority P2s, but then applies them to a baseline threshold that is based on historical wind speeds, National Weather Service 31/46 considering REAX risk. P2s and FPI don't determine whether we use the 99th percentile if higher than 31/46, it is REAX.

SCE forecasts an FPI value when weather reports indicate high wind conditions and days before a PSPS event. The FPI value will be adjusted over time based on conditions and modeling and what "the experts" think, but the factors that are considered in these adjustments are not really recorded or tracked.

SCE clarifies that its FPI forecasts are performed twice per day, every day, and that it activates PSPS protocols when FPI is expected to meet or exceed 12, with winds forecast to meet or exceed threshold. SCE also clarifies that "the experts" mentioned above include trained and experienced meteorologists and a fire science team.

The FPI value is something that is calculated by a model that was prepared by a contractor who owns the data and the outputs. SCE does not have the FPI values that were relied upon when a circuit in Acton was de-energized, but can estimate what they may have been. I pointed out that a critical factor in the FPI is fuel load, and asked what the fuel load in Acton was; I was told that the entire community is deemed to have a "high fuel" load. I asked how that can be, since all but a very small portion of Acton is desert with low growing native vegetation where the only trees are landscape trees that SCE can trim as needed. SCE responded that 'experts" determined that Acton has a high fuel load, so that is used in Acton's FPI calculation.

SCE clarifies that it owns the data and outputs of its FPI model but does not routinely collect and store the inputs used by the modeler to calculate forecasted FPI. SCE clarifies that the fuel loading modifiers were determined by SCE's Fire Scientist (who is a former USFS fire expert) through a careful review of all circuits that traverse the CPUC-designated HFRA.

To better grasp the reasons, I asked for SCE to send to the ATC photographic examples of what constitutes "High", "Moderate", and "Low" fuel loads. Then I asked how fuel load factors and the other parameters that go into FPI ("green up", dewpoint depression etc.) related to whether there is a significant risk that SCE's equipment would ignite a wildfire; SCE responded that FPI is intended to address wildfire spread and the consequence of an ignition should one occur and not the possibility of an ignition occurring.

I indicated that I understood that the REAX value is an indicator for fire spread and consequence, and I asked why Acton had a "highest" REAX score even on the 19th when it was raining on the circuit up Red Rover Mine road (the "Pick") when that circuit was cut. In response, SCE explained that the REAX score is a static value that is remains relatively fixed for an area throughout the PSPS season; it is a measure of how big/bad the fire could get if an ignition were to occur. The entire community of Acton has the highest possible REAX score. I asked why, and the reason given was that, if a fire in Acton were to start, it could possibly become very large.

There may be hundreds of circuits involved over a very wide area and it is a very complicated situation with people monitoring circuits both in the field and at a central control station. Because of the complicated process and the many layers and everything, SCE may shut off power before the 31/46 mph threshold. I pointed out that the threshold in Acton is not 31/46, and at times it has been as low as 25/40, with power shut off before even that point. I said that SCE cuts power in other places at the 31/46 threshold but not in Acton and pointed out that if SCE had used the 31/46 threshold in Acton, then there would have been only a couple of PSPS rather than the 9 or 10 that did occur. I said that the source of palpable anger in our community is that we know SCE cuts our power when windblown debris is not a concern but it does not do so in other areas. In response, SCE pointed out that they had answered my question.

SCE clarifies that Acton is in a Tier 3 HFRA, which supports the potential for a large fire, and is confirmed by the high REAX score. While FPI is used to make PSPS decisions, this comes after the forecasted FPI is refined by fire science and meteorology to reflect wildfire spread and consequence. De-energizing a circuit before the 31/46 is reached, but where actual conditions are expected to reach or exceed the threshold, is to allow SCE's resources to monitor and respond to many circuits at the same time, without exceeding the thresholds. While SCE has used

the REAX model, we are evaluating options for integrating TechnoSylva into the PSPS decision making process, which could replace REAX. SCE understands the anger and disappointment in the Acton community and is committed to making the process more transparent for customers. As part of this effort, SCE intends to review the Acton circuits to determine whether there are circuit locations where the models and tier values are not consistent.

I asked why a low PSPS trigger was assumed and power was cut even for a circuit segment that feeds an entire neighborhood via 100% underground facilities all the way to the Acton substation; SCE responded that it always has to do with the switch configuration, and in this case, it was probably the switch configuration at the Acton substation. I pointed out that there is a lot of frustration in our community because SCE keeps telling the Commission that they are using switches to minimize PSPS, but SCE has not installed switches to prevent power cuts to customers who have 100% underground service.

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SCE's equipment complies with CPUC General Order 95.

A "long span" as that term is used in SCE's response to the ATC Data Request is 200-500 linear feet. It pointed out that Acton has more than 30 "high spans" and that it is causing our multiplier to be low which means power is cut at very low wind speeds in Acton that was asked if there was a plan to reduce these long spans so that we can have the same 31/46 mph threshold that everyone else gets, and SCE indicated they are evaluating this and can either add new structures or spacers to reduce the "long spans".

I said that there are hundreds of "High P2" structures on each circuit in Acton and that this seemed to be an enormous number and that it is causing our multiplier to be low which means power is cut at very low windspeeds in Acton. SCE staff concurred that there is a very high number of "High P2s". I asked that, when these repairs are made over the next 6-12 months, will they still be deemed "High P2" structures because Acton is a high wind area? In other words, will Acton have a constant population of "High P2" facilities? SCE responded that they will not be P2 after repairs are made and that this population of "High P2" structures is intended to be eliminated.

SCE confirmed that the "High P2 OR Long Spans" value will be reported as "true" even if there is only one long span or one "High P2". They will check on whether this rating applies only to "High P2s" or if it considers just "P2s" in general.

I pointed out that the drivers that SCE uses to set PSPS thresholds in Acton well below the 31/46 point at which there is an ignition risk are FPI and high REAX, but it sounds like SCE can't really show its quantification for these factors. I then pointed out that this is why our community has not accepted them as "reasonable" nor have we accepted that our power should be cut at wind speeds which do not pose an ignition risk. Accordingly, I pointed out that any clarification regarding why

the FPI values and REAX values that SCE assigns to Acton are reasonable is very important.

SCE clarifies that the definition of a "long span" begins at 200 feet in length, but the minimum length to be considered a long span may be longer than 200 feet, depending on the type of conductor used. SCE also clarifies that when its staff "concurred that there is a very high number of 'High P2s,'" in Acton, they were expressing that the number appeared to be high, but had not done further research to determine whether all of those identified P2s were still open or had been remediated.

ATTACHMENT B

SCE DISCOVERY RESPONSE TO CALADVOCATES DATED MARCH 9, 2021

Southern California Edison

WSD-011 – Resolution implementing the requirements of Public Utilities Code Sections 8389(d)(1), (2) and (4) related to catastrophic wildfire caused by electrical corporations subject to the Commission's regulatory authority

DATA REQUEST SET CalAdvocates-SCE-2021WMP-09

To: Cal Advocates
Prepared by: Kyle Ferree
Job Title: Senior Advisor
Received Date: 3/4/2021

Response Date: 3/9/2021

Question 014:
The following questions relate to the use of live field observers (LFO) immediately prior to and during a PSPS event.
In its 2021 WMP, SCE states that:
SCE considers the National Weather Service Wind Advisory levels (defined as 31 mph sustained wind speed and 46 mph gust wind speed) and the 99th percentile of historical wind speeds in the area to set activation thresholds.
However, in a response to the Acton Town Council's discovery request, SCE states that:
After determining the modified multiplier, we must determine if it's to be applied to the circuit's "Wind/Gust Threshold" or its "99th Percentile" threshold. The "Wind/Gust Threshold" is determined by historical wind-related outages and the "99th Percentile" threshold is determined by the 99th percentile of historical wind speeds recorded for the circuit.
Is the Wind/Gust Threshold the same as SCE's use of NWS Wind Advisory level of 31 mph (sustained) and 46 mph (gust)? If not, explain which criteria SCE currently uses.

Response to Question 014:
In almost all cases, SCE uses the lower of the NWS Wind Advisory level of 31 mph (sustained) and 46 mph (gust) or a circuit's 99th percentile wind speed to perform PSPS notifications and Incident Management Team activation.

However, roughly a dozen SCE distribution circuits have outage-informed thresholds that are marginally lower than the NWS Wind Advisory level of 31 mph (sustained) and 46 mph (gust). These circuits have sustained concerning historical outages at wind speeds lower than the NWS Wind Advisory level and have had their threshold capped until completed maintenance has demonstrated the ability for each circuit to sustain higher wind speeds.

An example of this treatment was seen on the Shovel circuit in Acton in 2020. SCE was able to raise Shovel's outage-informed threshold of 25 mph (sustained) or 40 mph (gust) to the NWS Wind Advisory level. This occurred in late 2020 after confirming that key outstanding maintenance was completed and that the circuit was able to withstand NWS Wind Advisory level wind speeds without mechanical failure.

ATTACHMENT C
Weather Data from SCE's Acton Weather Station from December 2, 2020 at 08:00 to December 3, 2020 at 19:00

Note: Data pertaining to the de-energization interval for the "Pick " circuit is highlighted in Blue

Weather Conditions for SE174

Observations Prior to: 12/03/2020 19:00 PST

Weather Conditions at: 12/03/2020 19:00 PST

Graphical Links	19:00	Max Since 0:00 (PST)	Min Since 0:00 (PST)	24 Hour Maximum	24 Hour Minimum
Temperature	49.8° F	55.2 at 15:20	42.4 at 5:50	55.2 at 15:20	42.4 at 5:50
Dew Point	4.4° F	10.4 at 10:10	3.9 at 16:10	11.7 at 19:50	3.9 at 16:10
Wet bulb temperature	34.7° F	37.7 at 15:10	31.1 at 5:50	38.2 at 21:30	31.1 at 5:50
Relative Humidity	15%	24 at 5:50	13 at 16:40	24 at 5:50	13 at 16:40
Wind Speed	8.4 mph	21.4 at 12:00	8.4 at 19:00	21.4 at 12:00	8.4 at 19:00
Wind Gust	10.4 mph	37.3 at 0:50	10.4 at 19:00	37.3 at 0:50	10.4 at 19:00
Wind Direction	NE	-	-	-	-
Solar Radiation	0.0 W/m*m	604.6 at 11:50	0.0 at 19:00	604.6 at 11:50	0.0 at 19:00
Battery voltage	12.91 volt	13.84 at 8:00	12.59 at 7:00	13.84 at 8:00	12.59 at 7:00

***Note:** Observations above in **yellow** indicate that they are older than the last row of observations below.

Tabular Listing of 151 Observations from 12/02/2020 18:00 PST to 12/03/2020 19:00 PST:

Time (PST)	Temperature ° F	Dew Point ° F	Wet bulb temperature ° F	Relative Humidity %	Wind Speed mph	Wind Gust mph	Wind Direction	Solar Radiation W/m*m	Battery voltage volt	Quality Control
19:00	49.8	4.4	34.7	15	8.4	10.4	NE	0.0	12.91	OK
18:50	49.9	4.6	34.7	15	10.1	12.4	NE	0.0	12.91	OK
18:40	49.9	4.4	34.7	15	10.5	12.6	NE	0.0	12.92	OK
18:30	49.9	4.3	34.7	15	11.0	13.5	NE	0.0	12.92	OK
18:20	50.2	4.5	34.9	15	10.6	14.1	NE	0.0	12.93	OK
18:10	50.5	4.6	35.0	15	11.6	14.7	NE	0.0	12.93	OK

18:00	50.2	4.6	34.9	15	12.6	15.7	NE	0.0	12.94	OK
17:50	50.7	4.6	35.2	15	13.2	17.4	ENE	0.0	12.94	OK
17:40	52.1	4.7	35.9	14	14.7	20.0	NE	0.0	12.95	OK
17:30	52.5	4.5	36.1	14	15.5	19.0	NE	0.0	12.96	OK
17:20	52.7	4.4	36.2	14	16.3	20.3	NE	0.0	12.96	OK
17:10	52.8	4.6	36.3	14	16.6	21.0	NE	0.0	12.97	OK
17:00	52.9	4.6	36.4	14	16.9	21.6	NE	0.0	12.98	OK
16:50	53.0	4.5	36.4	14	15.9	22.0	NE	0.1	13.00	OK
16:40	53.3	4.4	36.5	13	17.2	24.3	NE	4.0	13.04	OK
16:30	53.6	4.3	36.7	13	17.3	24.5	NE	34.3	13.42	OK
16:20	53.9	4.1	36.8	13	15.5	21.4	NE	88.7	13.77	OK
16:10	54.1	3.9	36.9	13	15.1	22.4	NE	119.1	13.77	OK
16:00	54.3	4.2	37.0	13	14.2	24.0	NE	148.5	13.77	OK
15:50	54.6	4.2	37.2	13	16.5	23.9	NE	176.8	13.77	OK
15:40	54.8	4.5	37.3	13	14.6	27.0	NE	203.8	13.77	OK
15:30	55.0	4.6	37.5	13	16.5	24.2	NE	231.6	13.77	OK
15:20	55.2	5.1	37.6	13	14.6	23.5	NE	258.5	13.77	OK
15:10	55.2	5.8	37.7	13	14.8	23.4	NE	285.9	13.77	OK
15:00	54.9	5.5	37.5	13	15.3	26.9	NE	313.1	13.77	OK
14:50	54.9	5.2	37.5	13	16.6	26.2	NE	339.1	13.77	OK
14:40	54.6	5.4	37.4	13	18.3	28.4	NE	364.1	13.77	OK
14:30	54.6	5.9	37.4	14	17.1	25.9	NE	388.7	13.77	OK
14:20	54.7	6.1	37.5	14	16.4	25.9	NE	411.9	13.77	OK
14:10	54.6	6.0	37.4	14	18.3	29.4	NE	434.8	13.77	OK
14:00	54.6	6.3	37.5	14	17.1	27.0	NE	455.2	13.77	OK
13:50	54.8	6.3	37.6	14	15.6	27.4	NE	476.0	13.77	OK
13:40	54.3	6.4	37.3	14	18.3	28.7	NE	495.7	13.77	OK
13:30	53.9	6.5	37.1	14	19.4	26.8	NE	513.9	13.77	OK
13:20	53.9	6.4	37.1	14	19.8	29.2	NE	529.1	13.77	OK
13:10	53.7	6.5	37.0	15	20.5	27.6	NE	542.9	13.77	OK
13:00	54.1	7.0	37.3	15	17.4	28.3	NE	557.0	13.77	OK
12:50	53.9	7.0	37.2	15	18.2	28.4	NE	568.9	13.77	OK
12:40	53.6	7.2	37.1	15	18.6	28.6	NE	580.4	13.77	OK
12:30	53.3	7.3	36.9	15	20.4	28.1	ENE	588.5	13.81	OK

12:20	52.9	7.2	36.7	15	21.2	30.3	ENE	595.1	13.81	OK
12:10	52.5	7.5	36.6	16	19.8	28.6	NE	600.0	13.81	OK
12:00	52.1	7.3	36.3	16	21.4	32.3	NE	603.8	13.80	OK
11:50	51.9	7.4	36.2	16	21.0	32.7	NE	604.6	13.80	OK
11:40	51.8	7.8	36.2	17	18.8	32.0	NE	603.5	13.81	OK
11:30	51.8	8.2	36.3	17	18.5	29.0	NE	602.0	13.80	OK
11:20	51.2	7.9	35.9	17	20.9	27.7	NE	598.3	13.80	OK
11:10	50.8	8.5	35.8	18	20.5	29.7	NE	590.6	13.80	OK
11:00	50.8	9.9	36.1	19	14.1	23.2	NE	582.7	13.80	OK
10:50	50.2	9.4	35.7	19	14.5	23.2	NE	573.9	13.80	OK
10:40	49.9	8.8	35.4	19	19.5	28.9	NE	563.1	13.80	OK
10:30	49.5	9.3	35.3	19	16.6	24.9	NE	549.5	13.80	OK
10:20	49.1	10.0	35.2	20	16.3	25.4	NE	535.0	13.80	OK
10:10	48.2	10.4	34.8	21	15.6	25.1	NE	517.8	13.80	OK
10:00	47.6	10.4	34.4	22	13.9	21.3	NE	499.7	13.78	OK
9:50	47.0	10.3	34.1	22	13.2	21.9	NE	480.4	13.78	OK
9:40	46.5	9.9	33.7	22	13.6	22.6	NE	459.8	13.80	OK
9:30	46.0	9.9	33.5	23	13.9	20.4	NE	437.7	13.81	OK
9:20	45.6	9.8	33.2	23	14.8	25.9	ENE	415.0	13.81	OK
9:10	45.3	10.0	33.1	23	13.9	21.9	ENE	391.3	13.81	OK
9:00	44.5	9.4	32.5	23	18.0	27.8	ENE	367.1	13.81	OK
8:50	44.4	9.3	32.4	23	17.3	27.0	ENE	341.5	13.80	OK
8:40	44.7	9.1	32.6	23	16.6	28.8	ENE	316.4	13.80	OK
8:30	44.6	8.9	32.5	23	17.2	29.1	ENE	290.1	13.81	OK
8:20	44.3	8.8	32.3	23	19.8	29.7	ENE	263.0	13.81	OK
8:10	44.5	8.7	32.4	23	17.8	30.1	ENE	236.1	13.83	OK
8:00	44.3	8.7	32.3	23	14.3	24.2	ENE	208.3	13.84	OK
7:50	44.4	8.6	32.3	23	16.0	23.1	ENE	181.0	13.84	OK
7:40	44.4	8.6	32.3	23	15.8	24.6	ENE	153.6	13.77	OK
7:30	43.8	8.6	31.9	23	16.8	30.5	NE	126.1	13.60	OK
7:20	43.3	8.3	31.7	23	17.9	29.5	ENE	97.3	13.17	OK
7:10	43.1	8.3	31.5	23	14.6	22.1	ENE	41.2	12.66	OK
7:00	43.1	8.2	31.5	23	15.2	25.0	NE	6.1	12.59	OK
6:50	43.3	8.1	31.6	23	15.7	24.7	NE	1.4	12.59	OK

6:40	43.9	8.0	31.9	22	18.1	28.7	NE	0.0	12.59	OK
6:30	44.3	8.0	32.1	22	20.8	30.4	NE	0.0	12.60	OK
6:20	43.8	7.9	31.8	22	21.3	30.4	NE	0.0	12.60	OK
6:10	43.6	7.8	31.7	23	17.6	24.3	NE	0.0	12.61	OK
6:00	43.4	7.9	31.6	23	20.9	30.1	NE	0.0	12.61	OK
5:50	42.4	8.2	31.1	24	18.5	25.9	NE	0.0	12.62	OK
5:40	42.4	8.5	31.2	24	18.7	26.8	NE	0.0	12.62	OK
5:30	42.6	8.7	31.3	24	18.2	26.6	NE	0.0	12.63	OK
5:20	43.0	8.8	31.5	24	19.3	27.6	NE	0.0	12.64	OK
5:10	43.3	8.8	31.7	24	19.1	26.5	NE	0.0	12.64	OK
5:00	43.8	8.7	32.0	23	19.6	31.6	NE	0.0	12.65	OK
4:50	44.1	8.7	32.2	23	19.8	32.2	NE	0.0	12.65	OK
4:40	44.5	8.6	32.4	23	19.4	31.1	NE	0.0	12.66	OK
4:30	44.4	8.5	32.3	23	16.9	25.2	NE	0.0	12.67	OK
4:20	44.3	8.4	32.2	23	13.9	22.9	ENE	0.0	12.67	OK
4:10	44.6	8.3	32.4	22	13.6	22.1	ENE	0.0	12.68	OK
4:00	44.7	8.0	32.4	22	12.9	22.6	ENE	0.0	12.68	OK
3:50	45.0	7.8	32.5	21	14.5	22.5	ENE	0.0	12.69	OK
3:40	45.0	7.8	32.5	21	14.9	25.7	ENE	0.0	12.70	OK
3:30	45.2	7.9	32.6	21	13.9	23.2	ENE	0.0	12.70	OK
3:20	45.4	7.9	32.8	21	16.5	26.2	ENE	0.0	12.71	OK
3:10	45.0	8.0	32.5	22	12.4	21.9	ENE	0.0	12.71	OK
3:00	45.3	8.1	32.7	21	11.6	19.4	ENE	0.0	12.72	OK
2:50	45.8	8.1	33.0	21	11.5	20.8	ENE	0.0	12.72	OK
2:40	45.8	8.4	33.0	21	14.2	20.7	ENE	0.0	12.73	OK
2:30	45.8	8.6	33.1	21	13.9	22.0	ENE	0.0	12.74	OK
2:20	45.9	8.6	33.2	21	14.9	22.0	ENE	0.0	12.74	OK
2:10	46.2	8.5	33.3	21	15.8	23.8	NE	0.0	12.75	OK
2:00	47.2	8.5	33.9	20	14.2	22.8	NE	0.0	12.75	OK
1:50	47.8	8.6	34.2	20	15.9	24.8	NE	0.0	12.76	OK
1:40	48.2	8.6	34.4	20	15.4	24.0	NE	0.0	12.76	OK
1:30	48.8	8.6	34.8	19	16.2	30.2	ENE	0.0	12.76	OK
1:20	49.3	8.7	35.0	19	20.0	31.9	ENE	0.0	12.77	OK
1:10	49.4	8.7	35.1	19	18.7	33.2	ENE	0.0	12.77	OK

1:00	49.7	8.8	35.3	19	20.0	32.2	ENE	0.0	12.78	OK
0:50	49.8	9.0	35.3	19	19.8	37.3	ENE	0.0	12.78	OK
0:40	49.9	9.3	35.4	19	17.2	28.7	ENE	0.0	12.78	OK
0:30	50.1	9.6	35.6	19	18.6	32.1	ENE	0.0	12.79	OK
0:20	50.1	9.8	35.7	19	18.1	29.2	ENE	0.0	12.79	OK
0:10	50.3	10.0	35.8	19	17.2	28.9	ENE	0.0	12.80	OK
0:00	50.5	10.0	35.9	19	17.9	27.5	ENE	0.0	12.80	OK
23:50	50.6	10.1	36.0	19	18.2	30.0	ENE	0.0	12.80	OK
23:40	50.7	10.2	36.1	19	16.8	27.5	ENE	0.0	12.81	OK
23:30	51.0	10.2	36.2	19	16.5	26.8	ENE	0.0	12.81	OK
23:20	51.5	10.3	36.5	19	15.9	27.3	ENE	0.0	12.82	OK
23:10	51.9	10.3	36.7	18	19.6	29.6	ENE	0.0	12.82	OK
23:00	52.2	10.4	36.9	18	18.4	29.5	ENE	0.0	12.82	OK
22:50	52.2	10.4	36.9	18	16.8	27.0	ENE	0.0	12.83	OK
22:40	52.3	10.4	36.9	18	13.9	23.3	ENE	0.0	12.83	OK
22:30	52.0	10.0	36.7	18	15.0	23.4	ENE	0.0	12.83	OK
22:20	52.8	10.0	37.1	18	18.8	27.8	NE	0.0	12.84	OK
22:10	53.0	10.0	37.2	18	17.7	27.7	NE	0.0	12.84	OK
22:00	53.4	9.8	37.4	17	16.8	23.3	NE	0.0	12.84	OK
21:50	54.0	9.6	37.7	17	17.6	26.2	ENE	0.0	12.85	OK
21:40	54.4	10.0	38.0	17	18.2	28.1	ENE	0.0	12.85	OK
21:30	54.8	10.5	38.2	17	19.3	28.4	NE	0.0	12.85	OK
21:20	54.4	10.6	38.1	17	19.7	28.8	NE	0.0	12.85	OK
21:10	53.9	10.5	37.8	17	18.5	26.0	NE	0.0	12.86	OK
21:00	53.7	11.4	37.8	18	19.3	27.6	NE	0.0	12.86	OK
20:50	53.8	11.5	37.9	18	20.2	28.3	NE	0.0	12.86	OK
20:40	53.9	11.5	37.9	18	20.3	28.2	NE	0.0	12.87	OK
20:30	53.9	11.3	37.9	18	18.4	27.9	NE	0.0	12.87	OK
20:20	54.1	11.2	38.0	18	20.6	29.9	NE	0.0	12.87	OK
20:10	54.1	11.4	38.1	18	20.1	29.1	NE	0.0	12.88	OK
20:00	54.1	11.6	38.1	18	19.1	29.1	NE	0.0	12.88	OK
19:50	54.0	11.7	38.1	18	15.4	26.8	ENE	0.0	12.88	OK
19:40	54.0	11.6	38.0	18	14.6	22.3	ENE	0.0	12.89	OK
19:30	54.0	11.4	38.0	18	13.4	21.6	ENE	0.0	12.89	OK

19:20	53.9	11.2	37.9	18	12.8	20.0	ENE	0.0	12.90	OK
19:10	53.8	11.0	37.8	18	10.8	16.4	ENE	0.0	12.90	OK
19:00	54.7	10.6	38.2	17	15.1	22.0	ENE	0.0	12.90	OK
18:50	54.7	10.5	38.2	17	16.6	25.5	ENE	0.0	12.91	OK
18:40	54.6	10.6	38.2	17	16.0	24.0	ENE	0.0	12.91	OK
18:30	54.7	10.7	38.2	17	14.3	22.9	ENE	0.0	12.92	OK
18:20	54.9	10.7	38.3	17	14.1	22.0	NE	0.0	12.92	OK
18:10	54.9	11.1	38.4	17	11.8	22.7	ENE	0.0	12.93	OK
18:00	55.5	11.3	38.7	17	10.9	17.5	ENE	0.0	12.93	OK

University of Utah MesoWest

ACTON TOWN COUNCIL
P.O.Box 810, Acton CA 93510

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Safety and Enforcement Division,
California Public Utilities Commission
505 Van Ness Avenue,
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Electronic transmission of 27 (twenty seven) pages to:
leslie.palmer@cpuc.ca.gov

April 30, 2021

Subject: The Acton Town Council Comments on the Amended Version of Southern California Edison's Post-Event Report dated October 9, 2020.

Reference: SCE De-energization Events of Sept 5-11, 2020.

Honorable Director Palmer;

The Acton Town Council ("ATC") respectfully submits the enclosed comments on Southern California Edison's ("SCE'S") Amended version of the Post-Event Report describing "Public Safety Power Shutoff" ("PSPS") activities between September 5-11, 2020 that is dated October 9, 2020. On April 15, 2021, the Safety and Enforcement Division granted the ATC's request for an extension of time to submit the comments on the Amended reports on or before April 30, 2021. Accordingly, we ask that these comments be deemed timely filed. The ATC will also distribute these comments to those on the Service List for R.18-12-005.

THE PSPS WIND SPEED THRESHOLDS USED TO DE-ENERGIZE THE "SHOVEL" CIRCUIT ON SEPTEMBER 9 VIOLATE ESRB-8 AND MASK STRUCTURAL DEFFICIENCIES IN VIOLATION OF GO-95.

In General Order 95, the Commission adopted structural standards which require SCE's distribution equipment in Acton to withstand windspeeds substantially greater than 56 mph (D.14-02-015, D.14-12-089) and, in Resolution ESRB-8, the Commission restricted the use of PSPS to only circumstances where "strong winds" pose an "imminent and significant risk" of "toppling" electrical equipment or causing "vegetation related impacts" due to windborne debris. The National Weather Service recognizes the "Beaufort Scale" which clarifies that winds must exceed 39 mph before twigs will even break off trees[1]; therefore, there is no "imminent and significant risk" of "vegetation related impacts" on electrical

[1] See https://www.weather.gov/mfl/beaufort

facilities until windspeeds exceed 40 mph. Taken together, these facts demonstrate that PSPS events are never warranted in heavily vegetated areas unless and until windspeeds exceed 40 mph, and in areas of low vegetation where there is little risk of "vegetation related impacts", PSPS events are not warranted until windspeeds exceed 50 mph.

During the PSPS events of September 5-11, 2020, SCE cut power to the "Shovel" circuit on September 9 at 2:37 AM when windspeeds at the designated "Antelope Valley Freeway" weather station were only 14.6 mph (sustained) and 28.6 mph (gusts). SCE also cut power to the "Bootlegger" circuit on September 9 at 3:27 AM when windspeeds at the designated "Antelope Valley Freeway" weather station were only 18.9 mph (sustained) and 28.6 mph (gusts) – See Attachment A. These low windspeeds did not pose any risk of "toppling" equipment or causing "vegetation related impacts" thus SCE explicitly violated ESRB-8 when it de-energized circuits in Acton on September 9, 2021.

The ATC recently learned that the PSPS windspeed thresholds that SCE applies in Acton are established based on the fact that hundreds of structural deficiencies existed on the distribution circuits in Acton (see Attachment B) and that SCE was concerned the equipment would experience mechanical failure if windspeeds exceeded 40 mph (see Attachment C). Therefore, SCE's distribution equipment in Acton does not comply with the Commission-adopted structural standards. SCE used PSPS to mask these GO-95 violations by de-energizing Acton circuits based on windspeed thresholds that violate ESRB-8. The ATC recognizes and appreciates SCE's considerable efforts over the last two years to address these structural problems and "harden" their system, but in the meantime, the residents of Acton and elsewhere were forced to endure the untold misery of frequent and lengthy PSPS events over the last few years which were initiated because of these structural deficiencies. SCE must be held accountable for the ESRB-8 violations that occurred when SCE de-energized the "Shovel" and "Bootlegger" circuits in Acton on September 9, 2021 and for persistent GO-95 violations in Acton.

SCE REPORTS FALSE WINDSPEED RECORDS FOR THE "SHOVEL" CIRCUIT.

SCE's Revised PSPS Post-Event Report states on page 11 that 37 mph wind gusts were sustained on the Shovel Circuit during the September 9, 2020 PSPS event based on data obtained from the Antelope Valley Freeway Weather Station. This statement is categorically false. At no time did windspeeds recorded at the Antelope Valley Freeway weather station even approach 37 mph either before, during or after the September 9 PSPS event on the Shovel circuit. This fact is proven in Attachment A, which presents weather data recorded at this station between 1 AM on September 9 and 2 AM September 10. **These data prove that this SCE PSPS event violated ESRB-8 and was indisputably unreasonable because sustained winds on the "Shovel" circuit never exceeded 18.9 mph and gusts never exceeded 32.7 mph.**

SCE REPORTS FALSE WINDSPEED RECORDS FOR THE "BOOTLEGGER" CIRCUIT.

SCE's Revised PSPS Post-Event Report states on page 11 that 41 mph wind gusts were sustained on the Bootlegger Circuit during the September 9, 2020 PSPS event based on data obtained from the Antelope Valley Freeway Weather Station. This statement is categorically false. At no time did windspeeds recorded at the Antelope Valley Freeway weather station even approach 41 mph either before, during or after the September 9 PSPS event on the Bootlegger circuit. This fact is proven in Attachment A, which presents weather data recorded at this station between 1 AM on September 9 and 2 AM September 10. **These data prove that this SCE PSPS event violated ESRB-8 and was indisputably unreasonable because sustained winds on the "Bootlegger" circuit never exceeded 18.9 mph and gusts never exceeded 32.7 mph.**

EMAIL COMMUNICATIONS AMONG RESIDENTS, THE ATC, AND SCE INDICATE CONFUSION REGARDING DE-ENERGIZATION PATTERNS AND TIMING

The following summarizes email communications between Acton residents, the ATC, and SCE which indicate that there was confusion regarding who was shut off, who would be shutoff, and whether re-energization inspections happened. *NOTE: this information is not to be construed to mean that residents were concerned because they did not lose power; it is only meant to show 1) the angst created by PSPS which was not addressed by SCE; and 2) how confusion was created by the notification process.*

Email Trail #1:

Email from Customer on Bootlegger received Mon, Sep 7, 2020, 10:21 AM: "I have a major and minor concern. We already have a fire raging south of us [*referring to the Bobcat fire*] and we will be turned off with a PSPS. What if this fire moves North and threatens the ANF areas of Acton. I will have 20,000 gallons of worthless water; I'm sure I'm not alone in this worry. Second is we will lose distance learning and AC. How are our children supposed to learn in 108 degree heat?"

Email from the ATC to Bootlegger customer requesting clarification: "Are you saying that with PSPS, the 20,000 gallons in your water tank will be useless because there will be no power to pump it up to your house? Or do you mean the sprinkler system won't work because there is no power?"

Email Response from Bootlegger customer offering clarification received Mon, Sep 7, 2020, 5:43 PM: "Both. House sprinklers that require the use of a boost pump and the well that maintains the volume in the tanks. This risk from PSPS is real. Today we had a fire break out on Aliso less than one mile from our house. I can't imagine the stress we would have incurred if we were under PSPS. Thankfully, County fire and USFS did a great job knocking out the fire."

ATC members also received phone calls from Bootlegger customers expressing concern re SCE's PSPS event that will be on top of the Bobcat fire event and its incursion into east Acton where the Bootlegger circuit is located.

ATC email to SCE re PSPS concerns of residents on Bootlegger sent Mon, Sep 7, 2020, 8:39 PM: "The ATC received communications from Acton residents served by the Bootlegger circuit that expressed concerns about the PSPS notice issued today. Specifically, they reported that a fire was burning just a mile away, and were worried that, if a PSPS event were initiated in the vicinity of an ongoing fire, then sprinkler systems would not work and well pumps would not work so the fire department would be limited in how much water they could take from residential water tanks. The stress on residents responding to an existing fire situation is substantially and unnecessarily magnified if a PSPS event is initiated on top of the fire event that they are already dealing with. What measures does SCE have in place to ensure that a PSPS event is not initiated if it will exacerbate an existing fire situation?
Another resident expressed concern that the temperature today exceeded 105F and the air quality in Acton was terrible (I checked - real time PM2.5 concentrations data in Acton and the AV were more than five times greater than what EPA designates as "healthful"). Under these circumstances, if residents were forced to go outside or open their windows because a PSPS event had shut off their air conditioning, then they would have been forced to endure exceedingly unhealthful air quality conditions. Given this, can you clarify what measures SCE has in place to ensure that a PSPS event is not initiated when air quality conditions are unhealthful?
Thank you in advance for your assistance in addressing these concerns raised by residents; I will make sure that whatever information you can provide will be pushed out to the community."

Tue, Sep 8, 2020, 4:12 PM Email from SCE in response to ATC concerns:
"Thank you for your email. Our SCE fire manager's have been actively responding and monitoring fires throughout our region. At this time, there does not appear to be a fire near Acton. Please know that we are working hand-in-hand with LA County Fire, LA County Office of Emergency Management and other first responders to ensure we are taking all safety measures into account.
PSPS is implemented based on a number of factors primarily related to extreme weather conditions, including strong winds, high temperatures, low humidity and an abundance of dry vegetation. Based on these conditions and other assessments, a PSPS may be necessary to protect public safety and reduce the chance of a fire ignition starting from electrical equipment.
We do have a Community Resource Van that will be stationed at the Acton Community Center tomorrow from 8am -12pm to support residents who may be impacted by PSPS. The period of concern is tonight 6pm – 12pm tomorrow. I will keep you updated on the status of a potential PSPS in the Acton community."

WHAT IS PARTICULARLY DISTURBING ABOUT THESE COMMUNICATIONS IS THAT SCE FAILS TO ADDRESS ANY OF THE CONCERNS THAT THE ATC RAISED; IN FACT, ***THE ATC'S AND RESIDENTS' CONCERNS ARE IGNORED BY SCE'S RESPONSE.***

Email Trail #2:

Email Sep 9, 2020 from Resident served by Bootlegger: "Is it possible they now have segmented control of circuits? We are on bootlegger and experienced a brief interruption around 3am; we are currently energized. Interruption could not have been more that 30 min. I've seen no correspondence that bootlegger was reenergized. I'm beginning to wonder if SCE has lost situational awareness. Also, did they not tell us they would have to inspect all deenergized circuits before reenergizing and this could take up to 72 hours? I'm thankful we have power and not complaining - just confused!"

Email Sep 9, 2020 from resident served by Shovel: "Not complaining we have power but it's causing lots confusion online and well… anger since you can have people a block over with power and the exact same conditions. I am 100% happy having power and my kids are mad I even said anything they are worried that they [SCE] "forgot" to turn us off and if we bring it to their [SCE's] attention they [SCE] will turn it off. It's only interesting because the last PSPS we had a similar deal where we had power but most of Shannon Valley and Boiling Point did not, but if I recall correctly Ms. Seelman [the SCE representative] said there was no segmentation in our area (which makes 100% zero sense based upon on the ground experience). I mainly wanted them to be aware that their communication (if segmentation exists) is way too broad if you have even a quarter of homes in an area not powered off but receiving notifications that they are powered off.

Wed, Sep 9, 2020, 9:15 AM Email inquiry from the ATC to SCE:
"The ATC has heard from residents served by the 'Shovel' circuit that was ostensibly de-energized at 2:38 this morning. According to residents, they did not lose power. Does this mean that only a portion of 'Shovel' was de-energized, and that the portions that were not de-energized will remain powered? Or does it mean they will lose power at some point, but just not now? Can you please let us know if only a part of 'Shovel' was de-energized and why? And if so, which part? I am struggling to figure out what to tell these residents about the situation on 'Shovel' ".

Wed, Sep 9, 2020, 9:52 AM SCE Email in response to ATC inquiry:
"Only a portion of the Shovel circuit was de-energized. SCE has been working hard since last October to install weather stations, fast acting fuses and automated switching capabilities so that we can isolate outages to portions of a circuit thereby minimizing the impact of PSPS on customers.
At this time, there are 31 customers without power on the Shovel Circuit and 61 customers without power on the Bootlegger Circuit.
In terms of notifications, all customers served on circuits on the PSPS watchlist receive the initial PSPS notification. Only those customers that are actually de-energized and impacted by a PSPS shutoff receive a specific notice saying that they have been de-energized.
The period of concern for a potential PSPS goes through 12pm today. All customers on these circuits should still be aware of the potential for a PSPS.

I hope this clarifies the current status. Please let me know if I can answer any more questions.

Wed, Sep 9, 2020, 9:59 AM ATC reply to SCE:
"Thank you for your quick and detailed response.... I will check back with the residents who still have power to see if they received notices that they were going to lose power - if that happened, then there must have been a bit of a snafu. Also, I just heard that SCE is at the community center. Is this correct? If so, I will ask Jeremiah to help get the word out..."

CONCLUSION

For all the reasons set forth above, the ATC respectfully requests that the Commission determine that SCE's PSPS events in Acton between September 5-11, 2020 were not reasonable and did not comport with Commission requirements. We further request that fines be imposed on SCE per Public Utilities Code Section 2107; Specifically, the Acton Town Council is asking for fines in the amount of $500 for every customer who was de-energized on September 9, 2020. This is reasonable, because SCE perpetrated an individual offense on each affected customer; these fines should be paid as restitution to the customers affected by SCE's September 5-11, 2020 PSPS event.

The Acton Town Council appreciates your efforts on behalf of the Community of Acton and we are grateful that the Commission is interested in the welfare of Acton residents. If you have any questions regarding the information provided above or require additional information, please contact me at atc@actontowncouncil.org.

Sincerely,

/S/ Jeremiah Owen
Jeremiah Owen, President
The Acton Town Council

ATTACHMENT A
Weather Data from SCE's Antelope Valley Freeway Weather Station from September 9, 2021 at 1:00 AM to September 10, 2021 at 2:00 AM

Note: Data pertaining to the de-energization interval for the "Shovel" and "Bootlegger" circuits are highlighted in Blue

Weather Conditions for SE062

Observations Prior to: 09/10/2020 02:00 PDT

Weather Conditions at: 09/10/2020 2:00 PDT

Graphical Links	2:00	Max Since 0:00 (PDT)	Min Since 0:00 (PDT)	24 Hour Maximum	24 Hour Minimum
Temperature	65.9° F	69.3 at 0:10	65.9 at 2:00	80.1 at 16:50	65.8 at 21:40
Dew Point	10.0° F	10.4 at 0:40	9.7 at 1:40	21.1 at 8:50	9.7 at 1:40
Wet bulb temperature	43.6° F	45.2 at 0:10	43.6 at 2:00	50.8 at 16:50	43.6 at 2:00
Relative Humidity	11%	11 at 2:00	10 at 1:40	16 at 8:50	7 at 18:30
Wind Speed	2.0 mph	6.8 at 0:50	2.0 at 2:00	18.9 at 3:30	0.1 at 19:10
Wind Gust	3.5 mph	9.9 at 0:50	3.5 at 2:00	32.7 at 8:40	1.2 at 19:10
Wind Direction	ENE	-	-	-	-
Battery voltage	12.68 volt	12.72 at 0:00	12.68 at 2:00	13.57 at 10:10	12.57 at 7:30

***Note:** Observations above in **yellow** indicate that they are older than the last row of observations below.

Tabular Listing of 151 Observations from 09/09/2020 1:00 PDT to 09/10/2020 2:00 PDT:

Time (PDT)	Temperature ° F	Dew Point ° F	Wet bulb temperature ° F	Relative Humidity %	Wind Speed mph	Wind Gust mph	Wind Direction	Solar Radiation W/m*m	Battery voltage volt	Quality Control
2:00	65.9	10.0	43.6	11	2.0	3.5	ENE		12.68	Caution
1:50	66.5	9.9	43.9	11	3.3	5.4	ENE		12.68	Caution
1:40	67.0	9.7	44.1	10	4.8	6.1	ENE		12.68	Caution
1:30	66.8	9.7	44.0	11	5.6	7.2	ENE		12.69	Caution
1:20	66.7	9.7	43.9	11	6.0	7.5	ENE		12.69	Caution
1:10	67.1	9.8	44.1	11	6.2	8.3	ENE		12.69	Caution
1:00	67.6	10.0	44.4	10	5.9	8.1	ENE		12.70	Caution
0:50	68.0	10.2	44.6	10	6.8	9.9	ENE		12.70	Caution
0:40	68.3	10.4	44.8	10	5.9	9.0	ENE		12.70	Caution

0:30	68.5	10.4	44.9	10	5.3	8.0	ENE	12.71	Caution
0:20	69.0	10.4	45.1	10	5.3	7.7	ENE	12.71	Caution
0:10	69.3	10.2	45.2	10	5.7	8.8	ENE	12.71	Caution
0:00	68.3	10.4	44.8	10	4.8	7.9	ENE	12.72	Caution
23:50	68.4	10.5	44.8	10	4.2	6.4	ENE	12.72	Caution
23:40	68.0	10.6	44.7	11	5.3	7.6	ENE	12.73	Caution
23:30	67.5	10.7	44.5	11	5.8	7.6	ENE	12.73	Caution
23:20	68.0	11.0	44.8	11	5.6	8.3	ENE	12.73	Caution
23:10	67.9	11.1	44.7	11	5.7	8.3	ENE	12.74	Caution
23:00	67.8	11.2	44.7	11	4.8	7.0	ENE	12.74	Caution
22:50	67.6	11.3	44.6	11	4.8	7.2	ENE	12.74	Caution
22:40	66.8	11.4	44.2	11	4.1	7.9	E	12.75	Caution
22:30	67.6	11.5	44.6	11	3.4	5.8	E	12.75	Caution
22:20	67.7	11.5	44.7	11	4.7	7.2	E	12.76	Caution
22:10	67.8	11.4	44.7	11	4.3	6.3	ENE	12.76	Caution
22:00	67.4	11.3	44.5	11	3.3	5.6	E	12.77	Caution
21:50	66.9	11.2	44.2	11	2.8	4.3	E	12.77	Caution
21:40	65.8	11.2	43.7	12	2.9	4.2	E	12.77	Caution
21:30	66.7	11.0	44.1	11	3.2	4.4	ENE	12.78	Caution
21:20	67.0	10.8	44.2	11	4.6	6.4	ENE	12.78	Caution
21:10	68.2	10.7	44.8	11	4.4	6.0	ENE	12.79	Caution
21:00	68.9	10.7	45.1	10	5.3	7.6	ENE	12.79	Caution
20:50	69.9	10.8	45.6	10	5.1	6.9	ENE	12.79	Caution
20:40	70.0	10.5	45.6	10	4.7	6.6	ENE	12.80	Caution
20:30	70.0	10.5	45.6	10	4.5	6.1	ENE	12.80	Caution
20:20	70.2	10.5	45.7	10	3.9	5.8	ENE	12.81	Caution
20:10	71.1	10.5	46.1	9	3.3	4.7	ENE	12.81	Caution
20:00	71.8	10.6	46.4	9	3.8	5.0	ENE	12.81	OK
19:50	72.7	10.8	46.8	9	2.9	4.9	ENE	12.82	OK
19:40	72.6	10.7	46.8	9	2.5	4.8	ENE	12.82	OK
19:30	74.1	10.8	47.4	9	1.9	3.5	E	12.83	OK
19:20	75.2	11.8	48.0	9	1.2	2.9	NE	12.83	OK
19:10	76.2	11.9	48.5	8	0.1	1.2	ENE	12.83	OK
19:00	77.5	11.6	49.0	8	0.6	3.3	NE	12.84	OK

18:50	78.5	11.5	49.4	8	2.9	5.8	ENE	8.1	12.85	OK
18:40	79.0	11.4	49.6	8	5.6	11.0	E	26.6	12.88	OK
18:30	79.5	11.5	49.8	7	5.6	9.9	ENE	49.5	12.94	OK
18:20	79.8	12.1	50.0	8	5.8	11.0	ENE	73.4	13.02	OK
18:10	79.9	12.2	50.1	8	7.1	15.4	ENE	98.3	13.40	OK
18:00	79.7	11.7	50.0	7	8.4	17.5	ENE	122.0	13.49	OK
17:50	79.8	12.2	50.1	8	9.3	16.1	E	121.6	13.49	OK
17:40	80.0	13.6	50.3	8	6.7	14.1	E	133.4	13.49	OK
17:30	79.7	14.3	50.3	8	8.3	14.6	ENE	154.7	13.49	OK
17:20	79.5	14.4	50.3	8	9.0	18.1	ENE	171.5	13.49	OK
17:10	79.6	14.9	50.4	9	9.2	16.8	E	179.4	13.49	OK
17:00	80.0	15.3	50.6	9	10.0	19.1	ENE	225.7	13.49	OK
16:50	80.1	15.8	50.8	9	8.3	16.7	ENE	252.3	13.49	OK
16:40	79.5	15.7	50.5	9	11.7	21.3	E	263.4	13.49	OK
16:30	79.5	16.3	50.6	9	10.0	18.9	ENE	242.4	13.49	OK
16:20	79.1	16.7	50.5	10	10.2	18.4	E	252.4	13.49	OK
16:10	79.1	16.9	50.5	10	11.7	22.4	ENE	275.6	13.49	OK
16:00	79.6	16.8	50.7	9	10.8	20.2	E	310.1	13.52	OK
15:50	79.5	17.0	50.7	10	10.3	17.7	ENE	340.9	13.52	OK
15:40	79.1	17.2	50.6	10	10.9	20.5	ENE	343.0	13.52	OK
15:30	78.8	17.5	50.5	10	10.6	19.5	ENE	342.1	13.52	OK
15:20	78.6	18.0	50.5	10	12.2	22.2	ENE	338.8	13.52	OK
15:10	78.6	18.6	50.6	11	10.7	21.0	ENE	330.7	13.52	OK
15:00	78.1	18.9	50.5	11	10.5	19.9	ENE	329.2	13.52	OK
14:50	78.2	19.3	50.6	11	10.9	20.6	ENE	351.1	13.52	OK
14:40	78.1	19.5	50.6	11	10.9	22.4	ENE	422.0	13.52	OK
14:30	78.5	19.4	50.7	11	11.9	19.0	ENE	440.3	13.52	OK
14:20	78.7	19.5	50.8	11	10.5	22.3	ENE	499.1	13.52	OK
14:10	78.0	19.4	50.5	11	12.8	24.1	ENE	471.0	13.52	OK
14:00	77.5	19.3	50.3	11	12.9	22.9	ENE	528.4	13.52	OK
13:50	77.7	19.3	50.4	11	14.6	26.8	ENE	539.4	13.52	OK
13:40	77.8	19.7	50.6	11	12.0	24.0	ENE	542.5	13.52	OK
13:30	76.5	19.4	50.0	12	13.7	28.3	ENE	537.7	13.52	OK
13:20	76.4	19.3	49.9	12	13.5	27.0	ENE	537.4	13.52	OK

13:10	76.5	19.4	49.9	12	13.7	24.3	ENE	570.5	13.52	OK
13:00	76.4	19.2	49.9	12	12.6	22.0	ENE	564.7	13.52	OK
12:50	75.9	19.2	49.6	12	10.4	18.8	ENE	559.9	13.52	OK
12:40	75.5	19.0	49.5	12	11.7	21.6	ENE	556.7	13.52	OK
12:30	75.8	19.0	49.6	12	9.7	22.6	E	550.5	13.52	OK
12:20	74.5	18.5	48.9	12	12.6	26.6	E	554.2	13.52	OK
12:10	74.3	18.4	48.8	12	14.1	25.0	E	553.6	13.52	OK
12:00	74.3	18.8	48.9	12	9.7	20.0	E	545.7	13.52	OK
11:50	73.7	18.6	48.6	12	12.9	27.5	E	526.1	13.56	OK
11:40	73.7	18.6	48.6	12	13.1	26.6	E	514.1	13.56	OK
11:30	73.2	18.5	48.4	13	14.1	23.8	E	483.7	13.55	OK
11:20	73.0	18.4	48.2	13	14.3	28.4	ENE	458.3	13.55	OK
11:10	72.7	18.5	48.1	13	14.7	28.8	ENE	429.9	13.55	OK
11:00	72.3	18.7	48.0	13	15.9	28.0	ENE	427.1	13.54	OK
10:50	72.4	18.8	48.1	13	15.4	27.2	ENE	404.6	13.55	OK
10:40	72.0	18.4	47.8	13	15.6	25.4	ENE	397.5	13.55	OK
10:30	71.7	18.7	47.7	13	16.4	31.2	ENE	391.6	13.56	OK
10:20	71.6	19.0	47.8	13	15.9	31.4	ENE	372.9	13.56	OK
10:10	71.4	18.8	47.6	13	17.9	28.1	ENE	361.5	13.57	OK
10:00	71.3	18.8	47.6	14	16.6	28.8	ENE	335.0	13.50	OK
9:50	71.2	19.4	47.7	14	16.5	26.2	ENE	318.7	13.45	OK
9:40	71.1	19.6	47.7	14	17.7	31.0	ENE	298.2	13.40	OK
9:30	71.2	20.0	47.8	14	15.1	25.8	ENE	288.2	13.37	OK
9:20	70.7	20.1	47.6	15	18.1	32.4	ENE	272.4	13.34	OK
9:10	70.6	19.9	47.5	14	17.9	30.5	ENE	248.3	13.30	OK
9:00	70.3	20.6	47.5	15	17.7	30.9	ENE	222.5	13.26	OK
8:50	69.9	21.1	47.5	16	17.1	29.3	ENE	209.0	13.23	OK
8:40	69.6	21.0	47.3	16	16.2	32.7	ENE	189.8	13.17	OK
8:30	69.5	20.4	47.2	15	18.0	28.4	ENE	166.7	13.08	OK
8:20	69.5	20.3	47.1	15	14.2	26.3	ENE	156.7	12.98	OK
8:10	69.2	20.3	47.0	15	15.3	26.9	ENE	134.2	12.86	OK
8:00	69.0	20.1	46.9	15	15.7	29.4	ENE	129.4	12.78	OK
7:50	68.8	19.9	46.8	15	15.6	24.3	ENE	101.2	12.66	OK
7:40	68.9	20.0	46.8	15	13.9	28.1	ENE	65.1	12.60	OK

7:30	68.8	20.1	46.8	16	13.3	22.3	ENE	58.3	12.57	OK
7:20	68.6	19.9	46.6	16	12.9	21.9	ENE	36.5	12.57	OK
7:10	68.5	19.9	46.6	16	13.8	24.8	ENE	16.9	12.57	OK
7:00	68.7	19.7	46.6	15	14.9	24.9	E	7.5	12.57	OK
6:50	69.0	19.8	46.8	15	16.1	25.3	ENE	1.0	12.57	Caution
6:40	69.1	19.8	46.8	15	15.6	24.7	E		12.58	Caution
6:30	69.2	19.8	46.9	15	14.7	26.5	E		12.58	Caution
6:20	69.2	19.8	46.9	15	15.9	25.9	E		12.59	Caution
6:10	69.3	19.9	46.9	15	15.2	27.9	E		12.59	Caution
6:00	69.3	19.9	47.0	15	13.2	24.0	E		12.59	Caution
5:50	69.3	19.7	46.9	15	11.9	20.6	E		12.60	Caution
5:40	69.4	19.7	47.0	15	12.0	21.7	ENE		12.60	Caution
5:30	69.5	19.5	47.0	15	12.3	25.4	E		12.61	Caution
5:20	69.9	19.5	47.1	15	13.3	22.5	ENE		12.61	Caution
5:10	70.2	19.5	47.3	14	12.9	24.1	ENE		12.62	Caution
5:00	70.6	19.4	47.4	14	14.9	26.1	ENE		12.62	Caution
4:50	70.7	19.3	47.4	14	15.6	25.9	ENE		12.62	Caution
4:40	70.8	19.2	47.5	14	14.4	28.4	ENE		12.63	Caution
4:30	70.7	19.0	47.4	14	14.8	26.8	ENE		12.63	Caution
4:20	71.0	19.0	47.5	14	14.2	28.0	ENE		12.64	Caution
4:10	71.2	18.8	47.5	14	13.1	23.4	E		12.64	Caution
4:00	71.2	18.5	47.5	13	11.2	20.7	E		12.64	Caution
3:50	71.2	18.1	47.4	13	11.7	23.9	E		12.65	Caution
3:40	71.6	17.8	47.5	13	15.4	25.7	E		12.65	Caution
3:30	71.8	17.9	47.7	13	18.9	28.6	ENE		12.66	Caution
3:20	71.7	18.1	47.6	13	17.1	26.5	ENE		12.66	Caution
3:10	72.1	18.1	47.8	13	18.4	29.9	ENE		12.66	Caution
3:00	72.2	17.8	47.8	13	14.7	27.0	ENE		12.67	Caution
2:50	72.4	17.5	47.8	12	16.6	30.6	ENE		12.67	Caution
2:40	72.3	17.3	47.8	12	14.6	28.6	ENE		12.67	Caution
2:30	72.3	17.1	47.7	12	16.8	27.6	ENE		12.68	Caution
2:20	71.8	17.0	47.5	12	17.4	26.4	ENE		12.68	Caution
2:10	71.5	16.8	47.3	12	16.3	30.3	ENE		12.68	Caution
2:00	71.5	16.9	47.3	12	14.5	26.1	ENE		12.69	Caution

1:50	71.1	17.0	47.2	13	12.6	23.4	ENE	12.69	Caution
1:40	71.2	17.0	47.2	13	10.7	19.1	ENE	12.69	Caution
1:30	71.6	17.1	47.4	12	9.1	17.8	ENE	12.70	Caution
1:20	72.0	17.0	47.6	12	10.0	20.0	ENE	12.70	Caution
1:10	72.6	16.9	47.8	12	9.3	18.4	ENE	12.71	Caution
1:00	73.2	16.8	48.0	12	8.6	17.8	ENE	12.71	Caution

University of Utah MesoWest

For Questions or Comments about this page or MesoWest contact atmos-mesowest@lists.utah.edu

ATTACHMENT B
SCE'S RESPONSE TO THE ACTON TOWN COUNCIL'S DISCOVERY REQUEST.

Southern California Edison
R.18-12-005 – PSPS OIR

DATA REQUEST SET Acton-SCE-001

To: Acton
Prepared by: Nathanael Gonzalez
Job Title: Senior Advisor
Received Date: 2/16/2021

Response Date: 2/23/2021

Question 004:
Please describe in detail the methodologies and provide the calculations that were used to derive the following information provided on pages 7 and 8 of "Attachment A" that was included in SCE's Post Event Report dated February 4, 2021:
a) The "FPI Value" of 12.88 reported for the "Shovel" circuit on page 7.
b) The "FPI Value" of 12.8 reported for the "Shovel" circuit on page 8.
c) The "FPI Value" of 12.82 reported for the "Pick" circuit on page 8.
d) The 108% value reported for the "Shovel" circuit reported on page 7.
e) The 90% value reported for the "Shovel" circuit reported on page 8.
f) The 109% value reported for the "Pick" circuit reported on page 8.
g) The 25/40 mph "threshold" for the "Shovel" circuit reported on page 7.
h) The 31/46 mph "threshold" for the "Shovel" circuit reported on page 8.
i) The 31/46 mph "threshold" for the "Pick" circuit reported on page 8.
j) The 23/36 mph "Adjusted trigger" for the "Shovel" circuit reported on page 7.
k) The 28/41 mph "Adjusted trigger" for the "Shovel" circuit reported on page 8.
l) The 28/41 mph "Adjusted trigger" for the "Pick" circuit reported on page 8.

Response to Question 004:

Response to Parts a, b, c:

SCE uses an expert atmospheric modeling vendor, Atmospheric Data Solutions (ADS), to provide forecasts of FPI for all circuits in the high fire risk area, at the hundredths level. SCE's expert meteorologists use the best available model guidance from multiple public and proprietary data sources to refine and calibrate the forecasted FPI to reflect the most accurate integration of available data for the forecasted period of concern. These refined FPI values are used to determine which circuits are forecast to potentially breach PSPS criteria during the event, and the values are recorded on SCE's monitored circuit list for all circuits potentially subject to PSPS de-energization. In many cases, these initial estimated FPI values are then further refined in real-time during the period of concern based on careful consideration of quantitative and qualitative factors by SCE's meteorologists and operations experts.

The FPI values that are included in post-event reports represent the best estimate of FPI at the time of de-energization. In some cases, this value is taken directly from the monitored circuit list, and in many other cases, SCE records the real-time expected FPI value that was determined at the time of de-energization by meteorology and operations professionals.

SCE is unable to provide the specific inputs that were used at the time of de-energization to compute the real-time FPI because these decisions are highly dynamic, event specific, and based on professional judgement of meteorology and operations staff at the time of the event. In addition, the individual components that are used by ADS to calculate FPI are not retained by SCE.

Please see the "Definitions" section below for the equation used to calculate FPI. If Acton Town Council would prefer, SCE team is available to answer any follow-up questions via a conference call.

Response to Part d:

The 108% value reported for the Shovel circuit on page 7 was derived by comparing the de-energization trigger value to the actual windspeed at the time of de-energization, 43.5/40 * 100 = ~108%.

(Actual Windspeed mph/Mph Gust Trigger * 100 = x)

Response to Part e:

The 90% value reported for the Shovel circuit on page 8 was derived by comparing the de-energization trigger value to the actual windspeed at the time of de-energization, 36.9/41 * 100 = 90%.

(Actual Windspeed mph/Mph Gust Trigger * 100 = x)

Response to Part f:

The 109% value reported for the Pick circuit on page 8 was derived by comparing the de-energization trigger value to the actual windspeed at the time of de-energization, 44.57/41 * 100 = ~108%.

(Actual Windspeed mph/Mph Gust Trigger * 100 = x)

Response to Part g:

The 25/40 mph value provided for the Shovel circuit on page 7 in the Post-Event Report was incorrect. The correct threshold value for the Shovel circuit as of December 16, 2020, should have been 31/46 mph. Despite this change, actual wind speeds and real-time conditions breached the correct de-energization trigger value, at which point the circuit was deenergized.

Response to Part h and i:

SCE sets its PSPS activation and notification thresholds as the lower of the 99th percentile wind speed for the local area of the circuit, or the National Weather Service (NWS) wind advisory levels capped at 31/46 mph, (set at the wind speeds where debris fly-ins become a concern). Wind speed thresholds may also be adjusted based on other factors or circuit design.

Response to Parts j, k, and l:

Triggers are determined by multiplying a discount factor that is informed by FPI, circuit health and ignition consequence modeling (REAX score) to the baseline threshold. Discount multipliers range

from 0.8 to 1.0 and the Baseline Threshold is the lower of NWS Advisory (31/46) or 99th % historical. (Baseline Threshold) * (Discount multiplier) = Trigger value.

See the "Definitions" section below for additional information.

Response to Part j:

Starting factors for the Shovel circuit were: FPI of 12.88, Sustained (Baseline) Threshold: 25 mph, (Baseline) Gust Threshold: 40 mph, High P2s: 124, Long Span Count: 33, REAX: Highest.

The Sustained (Baseline) Threshold and the (Baseline) Gust Threshold were multiplied by 0.9, the determined multiplier.

(25 mph * 0.9) = 22.5, rounded to 23 mph wind trigger, and (40 mph * 0.9) = 36 mph wind trigger, yielding the "Adjusted trigger" for the Shovel circuit as reported on page 7.

Response to Part k:

Starting factors for the Shovel circuit were: FPI of 12.8, Sustained (Baseline) Threshold: 31 mph, (Baseline) Gust Threshold: 46 mph, High P2s: 209, Long Span Count: 33, REAX: Highest.

The Sustained (Baseline) Threshold and the (Baseline) Gust Threshold were multiplied by 0.9, the determined multiplier.

(31 mph * 0.9) = 27.9, rounded to 28 mph wind trigger, and (46 mph * 0.9) = 41.4, rounded to 41 mph wind trigger, yielding the "Adjusted trigger" for the Shovel circuit as reported on page 8.

Response to Part l:

Starting factors for the Pick circuit were: FPI of 12.82, Sustained (Baseline) Threshold: 31 mph, (Baseline) Gust Threshold: 46 mph, High P2s: 253, Long Span Count: 1, REAX: Highest.

The Sustained (Baseline) Threshold and the (Baseline) Gust Threshold were multiplied by 0.9, the determined multiplier.

(31 mph * 0.9) = 27.9, rounded to 28 mph wind trigger, and (46 mph * 0.9) = 41.4, rounded to 41 mph wind trigger, yielding the "Adjusted trigger" for the Pick circuit as reported on page 8.

Definitions

The Fire Potential Index (FPI) is a tool that is used to estimate fire potential across the landscape based on weather and fuel (vegetation) condition, and is calculated as:

$$FPI = \left(\frac{DL}{LFM} + G\right) FLx + Wx$$

The index is forecast at the circuit level twice per day out to 5 days at a 3-hourly temporal

resolution. Individual components of the FPI score are forecast hourly for each grid cell by a 2km WRF (Weather Research and Forecasting) model that has been optimized to best capture weather and fire weather conditions in Southern California Edison's territory. The grid cell forecasts associated with each of the FPI components are then summarized by circuit for three-hour forecast periods. Meteorologists and Fire Scientists may adjust the FPI score as needed based on observations, fuel sampling, additional weather models and climatology.

These forecast variables used to generate FPI score are forecast for each hour:

- Wind Speed
- Dewpoint Depression
- Energy Release Component
- 10-hour dead fuel moisture
- 100-hour dead fuel moisture
- Live fuel moisture
- Normalized Difference Vegetation Index

The individual components of the FPI equation are as follows:

- DL is the dryness level which is comprised of the Energy Release Component and the 10-hour dead fuel moisture time-lag.
- LFM is the moisture content of the living vegetation.
- G is the degree of green-up of the annual grass based on the Normalized Difference Vegetation Index (NDVI).
- FLx is the fuel loading modifier associated with low, moderate, and heavy fuel loading corresponding to .5, .75, and 1 respectively. This represents a measure of the amount of vegetation on the ground.
- Wx is the weather component of the FPI, also known as the weather score, and references a lookup table of paired sustained wind speed and dew point depression (representative of the dryness of the air) values as in the figure below. The value ranges from 0 to 6.

FPI Weather Component (Wx)							
		Wind Speed (mph)					
		<=5	6-10	11-16	17-22	23-28	>=29
Dew Point Depression	>=50	2	3	3	4	5	6
	40-49	2	2	3	3	4	5
	30-39	1	2	2	3	3	4
	20-29	1	1	2	2	3	3
	10-19	0	0	1	1	1	1
	<10	0	0	0	0	0	0

The full FPI output ranges from 1 to 17 which has been broken in three categories: Normal (1-11.99), Elevated (12-14.99), and Extreme (15+).

Triggers: SCE's de-energization decisions are made on a circuit-by-circuit basis, often on a sub-circuit level, only when current conditions in the immediate area warrant action. De-energization

wind speed triggers are unique to each circuit and are dynamic based on evolving environmental and circuit-specific characteristics. Some factors that are taken into consideration when setting de-energization triggers include wind speed, FPI, ignition consequence modeling, circuit conditions, length of conductor, and other technical characteristics for the applicable circuit. The IMT takes characteristics such as a higher FPI, multiple historical outages or outstanding maintenance items into account when determining if wind speed thresholds for recommending de-energization should be modified.

Rounded FPI are used as inputs for calculating the potential sustained wind and potential gust triggers. The "Peak FPI" is rounded to the nearest whole number to determine the "Rounded FPI." In cases where the "Peak FPI" ends in ".5", the value will be rounded up (e.g., a Peak FPI of 14.5 will be rounded to 15).

Once the Rounded FPI value is determined, a Multiplier is applied per the table below

Rounded FPI	Multiplier (X)
15+	0.8
14	0.85
13	0.9
12	0.95
<12	1

Table 1 – Rounded FPI and Multipliers

Circuit Health (Based on SCE's inspection and remediation program for all SCE's electrical infrastructure):

SCE remediates anything that is imminently about to fail (P1s) regardless of weather and fuel conditions for safety and reliability. Medium risk (P2s) items are typically items that will fail within 6 to 12 months in SCE's High Fire Risk Area. However, medium risk (P2s) items can become a high-risk issue due to other factors such as weather and fuel. These set of medium risk issues are reclassified as higher risk and are remediated more quickly than the 6- and 12-month timelines.

High P2s and Long Spans. The calculation then considers whether a circuit has High P2s or Long Spans. This value is calculated as "True" if there are any High P2s on the circuit or if the circuit has Long Span conditions.

REAX Score. The calculation also considers whether a circuit has a High REAX. The value is "True" if a circuit's REAX is "High" or "Highest."

Once these values are set, the change to the multiplier is determined based on the potential severity. The table below shows the outcome of each scenario.

High P2s OR Long Spans	High Reax	Net Change to X (Never above 1)
True	True	No Change
True	False	+0.05
False	True	No Change
False	False	+0.10

Table 2 – Modified Multiplier Determination

Covered Conductor Calculations: In cases where we do not have a circuit that is fully covered with Covered Conductor, we will use the table below to modify our multiplier.

High P2s OR Long Spans	High Reax	Net Change to X (Never above 1)
True	True	+0.05
True	False	+0.05
False	True	+0.10
False	False	+0.10

After determining the modified multiplier, we must determine if it's to be applied to the circuit's "Wind/Gust Threshold" or its "99th Percentile" threshold. The "Wind/Gust Threshold" is determined by historical wind-related outages and the "99th Percentile" threshold is determined by the 99th percentile of historical wind speeds recorded for the circuit. Based off the High P2s, Long Spans, and REAX for each circuit, we determine which set of thresholds to use as shown in Table 3 below.

High P2s OR Long Spans	High Reax	Trigger is Multiplied to
True	True	Wind/Gust Threshold
True	False	99th Percentile
False	True	99th Percentile
False	False	99th Percentile

Table 3 – Wind/Gust vs. 99th Percentile Thresholds

Covered Conductor Exception: In cases where we have a fully covered circuit, we will apply the multiplier to the High Wind Warning levels provided by the National Weather Service of 40 mph for sustained winds and 58 mph for wind gusts. The following table shows the case for all completely covered circuits.

High P2s OR Long Spans	High Reax	Trigger is Multiplied to
True	True	NWS High Wind Warning
True	False	NWS High Wind Warning
False	True	NWS High Wind Warning
False	False	NWS High Wind Warning

The Sustained Wind Trigger and Gust Trigger are determined by applying the multiplier to the Wind/Gust Threshold or 99th Percentile. The Sustained Wind Trigger cannot exceed 40 mph and the Gust Trigger cannot exceed 58 mph, respectively.

SUMMARY OF CONVERSATION ON FEBRUARY 26, 2021 BEGINNING AT APPROXIMATELY 3 PM BETWEEN SCE STAFF AND JACQUELINE AYER ON BEHALF OF THE ACTON TOWN COUNCIL REGARDING DATA REQUEST #1. SCE CLARIFICATIONS ARE INDICATED IN ITALICS

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SCE will be replacing all of the distribution lines in Acton with covered conductor, even if the maps provided in response to the Acton Town Council's Data Request 1 indicated that portions of some lines will not be retrofit (including the line to Hauser Mountain as shown in the attached figure). I pointed out that Hauser mountain is a critical link to communication platforms in the area, and SCE is constantly cutting power to it. SCE staff said they want to hear about these types of circuits so they can be addressed.

SCE clarifies that the Bootlegger circuit is currently planned to have its overhead distribution lines completely covered by 9/1/2021. However, the other overhead distribution lines in Acton, which are the Pick and Shovel circuits, are not currently planned to be completely covered by 9/1/2021. The Hauser mountain area is served by the Shovel circuit.

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SCE confirmed that the following is correct:

Starting factors for the Shovel circuit were: FPI of 12.88, Sustained (Baseline) Threshold: ~~25~~ 31 mph, (Baseline) Gust Threshold: ~~40~~ 46 mph, High P2s: 124, Long Span Count: 33, REAX: Highest.

The Sustained (Baseline) Threshold and the (Baseline) Gust Threshold were multiplied by 0.9, the determined multiplier.

(~~25~~ 31 mph * 0.9) = ~~22.5~~ 27.9, rounded to ~~23~~ 28 mph wind trigger, and (~~40~~ 46 mph * 0.9) = ~~36~~ 41.4 mph wind trigger, yielding the correct "Adjusted trigger" for the Shovel circuit as ~~reported on page 7~~ 28/41.4.

The correct value for the "Trigger Percentage" reported for the Shovel Circuit on page 7 of Attachment A is 105% rather than 108%.

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"Failure" of a circuit item is a broken pole or a broken cross arm.

P2 denotes an item that will fail within 6-12 months within SCE's High Fire Risk Area. High P2 means a P2 that can be exacerbated by wind. A high P2 is a P2 item that, under high wind conditions, could fail before the 6–12-month window.

SCE clarifies that a broken pole or broken cross arm are two examples of types of "failure" or damage on SCE's system. According to the Commission's General Order (GO) 95 and SCE's Distribution and Transmission Inspection Management

Programs, SCE remediates any P1 findings regardless of weather and fuel conditions. P1 findings refers to safety and/or reliability risks with a high probability for significant impact found through inspections that require immediate action. P2 findings do not necessarily mean that the equipment will fail within 6-12 months, but that SCE must repair the deficiency within the GO 95 mandated time period to comply with its maintenance requirements. P2 findings refer to safety and/or reliability risks with variable requirements in terms of time to remediate where SCE is required to complete P2 findings in HFRA Tier 3 locations within 6 months that create a fire risk and P2 findings within Tier 2 locations within 12 months that create a fire risk.

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The purpose of the first data request was to get an understanding of how SCE establishes PSPS thresholds: PSPS Trigger levels in Acton are driven by the FPI, the number of high P2s, the REAX, and the 31/46 mph threshold established by the National Weather Service as being the point at which wind-driven debris could be problematic.

SCE clarifies that it establishes the multipliers for reduction and prioritization based on FPI, long spans and circuit conditions with high priority P2s, but then applies them to a baseline threshold that is based on historical wind speeds, National Weather Service 31/46 considering REAX risk. P2s and FPI don't determine whether we use the 99th percentile if higher than 31/46, it is REAX.

SCE forecasts an FPI value when weather reports indicate high wind conditions and days before a PSPS event. The FPI value will be adjusted over time based on conditions and modeling and what "the experts" think, but the factors that are considered in these adjustments are not really recorded or tracked.

SCE clarifies that its FPI forecasts are performed twice per day, every day, and that it activates PSPS protocols when FPI is expected to meet or exceed 12, with winds forecast to meet or exceed threshold. SCE also clarifies that "the experts" mentioned above include trained and experienced meteorologists and a fire science team.

The FPI value is something that is calculated by a model that was prepared by a contractor who owns the data and the outputs. SCE does not have the FPI values that were relied upon when a circuit in Acton was de-energized, but can estimate what they may have been. I pointed out that a critical factor in the FPI is fuel load, and asked what the fuel load in Acton was; I was told that the entire community is deemed to have a "high fuel" load. I asked how that can be, since all but a very small portion of Acton is desert with low growing native vegetation where the only trees are landscape trees that SCE can trim as needed. SCE responded that 'experts" determined that Acton has a high fuel load, so that is used in Acton's FPI calculation.

SCE clarifies that it owns the data and outputs of its FPI model but does not routinely collect and store the inputs used by the modeler to calculate forecasted FPI. SCE clarifies that the fuel loading modifiers were determined by SCE's Fire Scientist (who is a former USFS fire expert) through a careful review of all circuits that traverse the CPUC-designated HFRA.

To better grasp the reasons, I asked for SCE to send to the ATC photographic examples of what constitutes "High", "Moderate", and "Low" fuel loads. Then I asked how fuel load factors and the other parameters that go into FPI ("green up", dewpoint depression etc.) related to whether there is a significant risk that SCE's equipment would ignite a wildfire; SCE responded that FPI is intended to address wildfire spread and the consequence of an ignition should one occur and not the possibility of an ignition occurring.

I indicated that I understood that the REAX value is an indicator for fire spread and consequence, and I asked why Acton had a "highest" REAX score even on the 19th when it was raining on the circuit up Red Rover Mine road (the "Pick") when that circuit was cut. In response, SCE explained that the REAX score is a static value that is remains relatively fixed for an area throughout the PSPS season; it is a measure of how big/bad the fire could get if an ignition were to occur. The entire community of Acton has the highest possible REAX score. I asked why, and the reason given was that, if a fire in Acton were to start, it could possibly become very large.

There may be hundreds of circuits involved over a very wide area and it is a very complicated situation with people monitoring circuits both in the field and at a central control station. Because of the complicated process and the many layers and everything, SCE may shut off power before the 31/46 mph threshold. I pointed out that the threshold in Acton is not 31/46, and at times it has been as low as 25/40, with power shut off before even that point. I said that SCE cuts power in other places at the 31/46 threshold but not in Acton and pointed out that if SCE had used the 31/46 threshold in Acton, then there would have been only a couple of PSPS rather than the 9 or 10 that did occur. I said that the source of palpable anger in our community is that we know SCE cuts our power when windblown debris is not a concern but it does not do so in other areas. In response, SCE pointed out that they had answered my question.

SCE clarifies that Acton is in a Tier 3 HFRA, which supports the potential for a large fire, and is confirmed by the high REAX score. While FPI is used to make PSPS decisions, this comes after the forecasted FPI is refined by fire science and meteorology to reflect wildfire spread and consequence. De-energizing a circuit before the 31/46 is reached, but where actual conditions are expected to reach or exceed the threshold, is to allow SCE's resources to monitor and respond to many circuits at the same time, without exceeding the thresholds. While SCE has used

the REAX model, we are evaluating options for integrating TechnoSylva into the PSPS decision making process, which could replace REAX. SCE understands the anger and disappointment in the Acton community and is committed to making the process more transparent for customers. As part of this effort, SCE intends to review the Acton circuits to determine whether there are circuit locations where the models and tier values are not consistent.

I asked why a low PSPS trigger was assumed and power was cut even for a circuit segment that feeds an entire neighborhood via 100% underground facilities all the way to the Acton substation; SCE responded that it always has to do with the switch configuration, and in this case, it was probably the switch configuration at the Acton substation. I pointed out that there is a lot of frustration in our community because SCE keeps telling the Commission that they are using switches to minimize PSPS, but SCE has not installed switches to prevent power cuts to customers who have 100% underground service.

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SCE's equipment complies with CPUC General Order 95.

A "long span" as that term is used in SCE's response to the ATC Data Request is 200-500 linear feet. It pointed out that Acton has more than 30 "high spans" and that it is causing our multiplier to be low which means power is cut at very low wind speeds in Acton that was asked if there was a plan to reduce these long spans so that we can have the same 31/46 mph threshold that everyone else gets, and SCE indicated they are evaluating this and can either add new structures or spacers to reduce the "long spans".

I said that there are hundreds of "High P2" structures on each circuit in Acton and that this seemed to be an enormous number and that it is causing our multiplier to be low which means power is cut at very low windspeeds in Acton. SCE staff concurred that there is a very high number of "High P2s". I asked that, when these repairs are made over the next 6-12 months, will they still be deemed "High P2" structures because Acton is a high wind area? In other words, will Acton have a constant population of "High P2" facilities? SCE responded that they will not be P2 after repairs are made and that this population of "High P2" structures is intended to be eliminated.

SCE confirmed that the "High P2 OR Long Spans" value will be reported as "true" even if there is only one long span or one "High P2". They will check on whether this rating applies only to "High P2s" or if it considers just "P2s" in general.

I pointed out that the drivers that SCE uses to set PSPS thresholds in Acton well below the 31/46 point at which there is an ignition risk are FPI and high REAX, but it sounds like SCE can't really show its quantification for these factors. I then pointed out that this is why our community has not accepted them as "reasonable" nor have we accepted that our power should be cut at wind speeds which do not pose an ignition risk. Accordingly, I pointed out that any clarification regarding why

the FPI values and REAX values that SCE assigns to Acton are reasonable is very important.

SCE clarifies that the definition of a "long span" begins at 200 feet in length, but the minimum length to be considered a long span may be longer than 200 feet, depending on the type of conductor used. SCE also clarifies that when its staff "concurred that there is a very high number of 'High P2s,'" in Acton, they were expressing that the number appeared to be high, but had not done further research to determine whether all of those identified P2s were still open or had been remediated.

ATTACHMENT C

SCE DISCOVERY RESPONSE TO CALADVOCATES DATED MARCH 9, 2021

Southern California Edison

WSD-011 – Resolution implementing the requirements of Public Utilities Code Sections 8389(d)(1), (2) and (4) related to catastrophic wildfire caused by electrical corporations subject to the Commission's regulatory authority

DATA REQUEST SET CalAdvocates-SCE-2021WMP-09

To: Cal Advocates
Prepared by: Kyle Ferree
Job Title: Senior Advisor
Received Date: 3/4/2021

Response Date: 3/9/2021

Question 014:
The following questions relate to the use of live field observers (LFO) immediately prior to and during a PSPS event.
In its 2021 WMP, SCE states that:
SCE considers the National Weather Service Wind Advisory levels (defined as 31 mph sustained wind speed and 46 mph gust wind speed) and the 99th percentile of historical wind speeds in the area to set activation thresholds.
However, in a response to the Acton Town Council's discovery request, SCE states that:
After determining the modified multiplier, we must determine if it's to be applied to the circuit's "Wind/Gust Threshold" or its "99th Percentile" threshold. The "Wind/Gust Threshold" is determined by historical wind-related outages and the "99th Percentile" threshold is determined by the 99th percentile of historical wind speeds recorded for the circuit.
Is the Wind/Gust Threshold the same as SCE's use of NWS Wind Advisory level of 31 mph (sustained) and 46 mph (gust)? If not, explain which criteria SCE currently uses.

Response to Question 014:
In almost all cases, SCE uses the lower of the NWS Wind Advisory level of 31 mph (sustained) and 46 mph (gust) or a circuit's 99th percentile wind speed to perform PSPS notifications and Incident Management Team activation.

However, roughly a dozen SCE distribution circuits have outage-informed thresholds that are marginally lower than the NWS Wind Advisory level of 31 mph (sustained) and 46 mph (gust). These circuits have sustained concerning historical outages at wind speeds lower than the NWS Wind Advisory level and have had their threshold capped until completed maintenance has demonstrated the ability for each circuit to sustain higher wind speeds.

An example of this treatment was seen on the Shovel circuit in Acton in 2020. SCE was able to raise Shovel's outage-informed threshold of 25 mph (sustained) or 40 mph (gust) to the NWS Wind Advisory level. This occurred in late 2020 after confirming that key outstanding maintenance was completed and that the circuit was able to withstand NWS Wind Advisory level wind speeds without mechanical failure.

ATTACHMENT 2.

CPUC INCIDENT INVESTIGATION REPORT ON THE 2019 SADDLERIDGE FIRE.

CALIFORNIA PUBLIC UTILITIES COMMISSION
Safety and Enforcement Division
Electric Safety and Reliability Branch

Incident Investigation Report

Report Date:

Incident Number: E 20191011-01

Utility: SCE

Date and Time of the Incident: 10/10/2019, 9:00:00 PM

Location of the Incident: Field located behind 14000 Saddle Ridge Road Sylmar, CA

County: Los Angeles

Summary of Incident:

On October 10, 2019, at 8:57 pm, an insulator Y-clevis end fitting installed on SCE tower M5-T2 (Mile 5-Tower 2) failed, causing the 220 kV transmission conductor that it had been supporting to fall onto an underbuilt steel arm. The contact between the 220 kV conductor and the steel arm created a phase to ground fault on SCE tower M5-T2. Consequently, the 220 kV circuit relayed to lockout. At approximately 9:00 pm, three miles upstream from tower M5-T2, burning occurred at the footings of two other SCE towers: M2-T4 and M2-T5. As a result of the burning, a fire ignited at the base of tower M2-T5. On October 31, 2019, LAFD fully contained the fire, which consumed 8,799 acres, damaged 88 structures, destroyed 19 structures, injured 8 personnel and civilians, and resulted in one fatality of a civilian due to a heart attack. My investigation found that SCE did not maintain the Y-clevis end fitting and a skyline jumper wire prior to them failing.

Fatality / Injury: 8 injuries and 1 fatality

Property Damage: More than $50,000

Utility Facilities involved: 220 kV Gold-Sylmar Circuit

Witnesses:

	Name	*Title*	*Phone*
1.	Eric Ujiiye	CPUC Investigator	N/A
2.	Paul Pimentel	SCE Senior Manager	[redacted]
3.	[redacted]	SCE Claims Investigator	[redacted]
4.	[redacted]	OWR Nursery Employee	[redacted]
5.	[redacted]	LAFD Arson Investigator	
6.	[redacted]	Resident Witness	

Evidence:

	Source	*Description*
1.	SCE	Initial Report
2.	SCE	Final Report
3.	SCE	Data Request No. 1
4.	SCE	Data Request No. 2
5.	SCE	Data Request No. 3
6.	SCE	Data Request No. 4
7.	SCE	Data Request No. 5
8.	SCE	Data Request No. 6
9.	CPUC	Photographs
10.	LAFD	Photograph

Observations and Findings:

In 1970, SCE installed towers M5-T2, M2-T5, and M2-T4. "M" stands for mile and "T" stands for tower. For example, M5-T2 represents Mile 5, Tower 2. Figure 1 shows the location of the towers in Sylmar. Figure 2 shows the general configuration of each tower. In Figure 2, the left side of the tower supports the 220 kV Eaglerock-Sylmar circuit, with the pair of conductors on the top arm, the pair of conductors on the middle arm, and the pair of conductors on the bottom arm corresponding to the B, C, and A phases, respectively. Also in Figure 2, the right side of the tower supports the 220 kV Gould-Sylmar circuit, with the pair of conductors on the top arm, the pair of conductors on the middle arm, and the pair of conductors on the bottom arm corresponding to the A, B, and C phases, respectively.

On February 16, 2019, SCE performed detailed inspections on towers M2-T4, M2-T5, M2-T6, and M5-T2 that resulted in the following notifications:

a.) Tower M2-T4: Right of way road need grading.
b.) Tower M2-T5: Right of way road need grading.
c.) Tower M2-T6: Right of way road need grading.
d.) Tower M5-T2: Replace damaged insulator (a chipped insulator)

An explanation of SCE's detailed inspection procedures is contained in Appendix A.

In June 2019, SCE patrolled towers M2-T4, M2-T5, M2-T6, and M5-T2. The patrols did not result in any new notifications. An explanation of SCE's patrol procedures is contained in Appendix A.

On October 10, 2019, at approximately 8:57 PM, the insulator Y-clevis end fitting supporting the B phase conductor of the 220 kV Gould-Sylmar circuit failed. This caused the B phase conductor to fall onto the underbuilt steel arm supporting the C phase conductor of the 220 kV Gould-Sylmar circuit (see Figure 3). The contact between the B phase conductor and the steel tower caused a B-phase-to-ground fault on the 220 kV Gould-Sylmar circuit, which in turn caused the

circuit to relay to lockout (note: there is no evidence to suggest that the B phase conductor contacted the C phase conductor). The fault magnitude varied from 18,700 Amperes to 7,300 Amperes. The total fault clearing time was 3 cycles, or 0.05 seconds. The 220 kV Eagle Rock-Sylmar circuit did not relay or lockout.

On October 10, 2019, shortly after 9:00 PM, Robert Delgado, who resides at 14000 Saddle Ridge Road, observed from the window of his home that a fire had ignited near the base of SCE tower M2-T5, located in an open field approximately 2.1 miles upstream from M5-T2 (see Figure 3 for relative locations of SCE towers M2-T5 and M5-T2). This fire would later be named the "Saddle Ridge Fire". The Saddle Ridge Fire eventually consumed 8,799 acres, damaged 88 structures, destroyed 19 structures, injured 8 personnel and civilians, and resulted in one fatality of a civilian due to a heart attack.

From October 10, 2019 to October 12, 2019, SCE completed the following repairs:

- Tower M2-T3: SCE replaced 2 broken insulator units on the bottom phase insulator.
- Tower M2-T6: SCE replaced skyline jumper loop (jumper wire)
- Tower M3-T5: SCE replaced 1 broken unit on the bottom phase insulator.
- Tower M4-T2: SCE replaced 8 broken insulator units on the bottom barreled insulator.
- Tower M5-T4: SCE replaced 1 broken unit on the top phase insulator.
- Tower M5-T2: SCE replaced three insulator strings on the Gould-Sylmar 220 kV circuit.
- SCE washed the insulators on the towers near Tower M2-T5.

On October 14, 2019, ESRB staff inspected towers M2-T5 and M5-T2. The location of Tower M5-T2 is shared with a landscaping business, OWR Nursery. According to Enrique Camacho, an employee of OWR Nursery, shattered pieces of insulator debris were discovered on the ground. The insulator debris is consistent with the B phase insulator on tower M5-T2 falling onto the C phase tower arm. A video recording from the surveillance camera located on the northside of the office building of OWR Nursery did not capture the event but recorded the weather condition at the time of the incident. The weather was windy but there is no indication that the wind was abnormal to the area based on known local conditions.

SCE Tower M5-T2 was constructed and designed in 1970 with a wind load of 8 pounds per square foot (psf) as defined in General Order (GO) 95, Rule 43.2: Light Loading. However, SCE provided a wind load map used for pole loading that indicated that tower M5-T2 was in a known 18 psf wind load area at the time of the incident (Figure 4). In its response to data request response no. 2, question 11, SCE stated, "Tower 5/2 is located in the Yellow = 18# - 84 mph wind loading tier. The yellow tier is the second highest of the five wind loading tiers." While this wind load map was not used for towers, it should be noted that wind speeds generally increase with height above ground due to reduced friction with the ground. As a result, conductors installed on towers are usually exposed to higher wind speeds than conductors installed on poles.

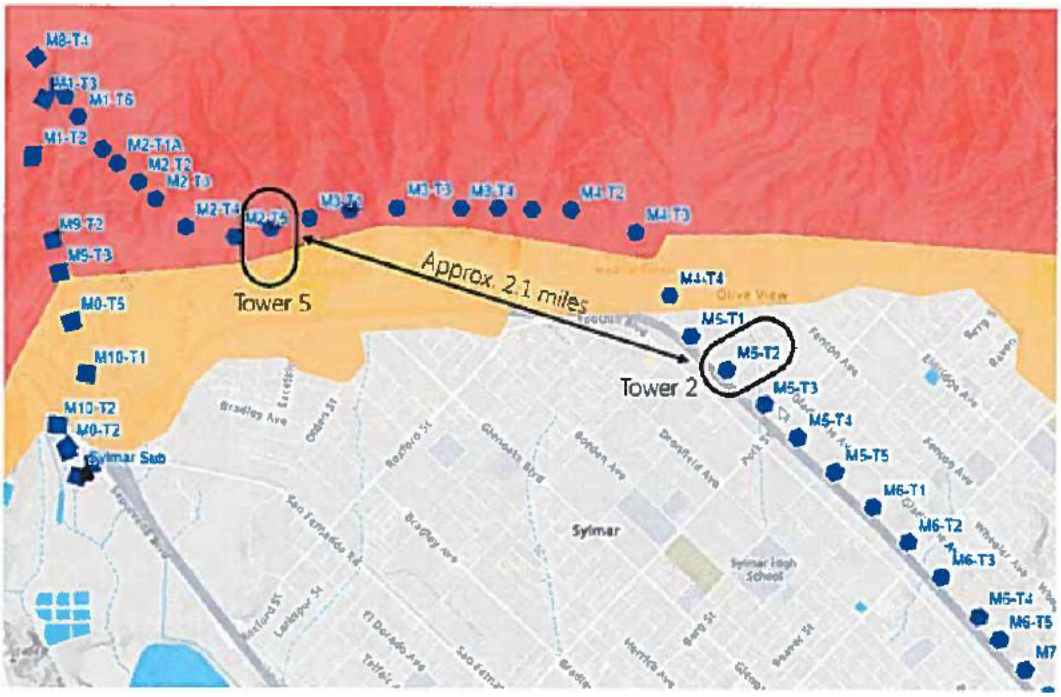
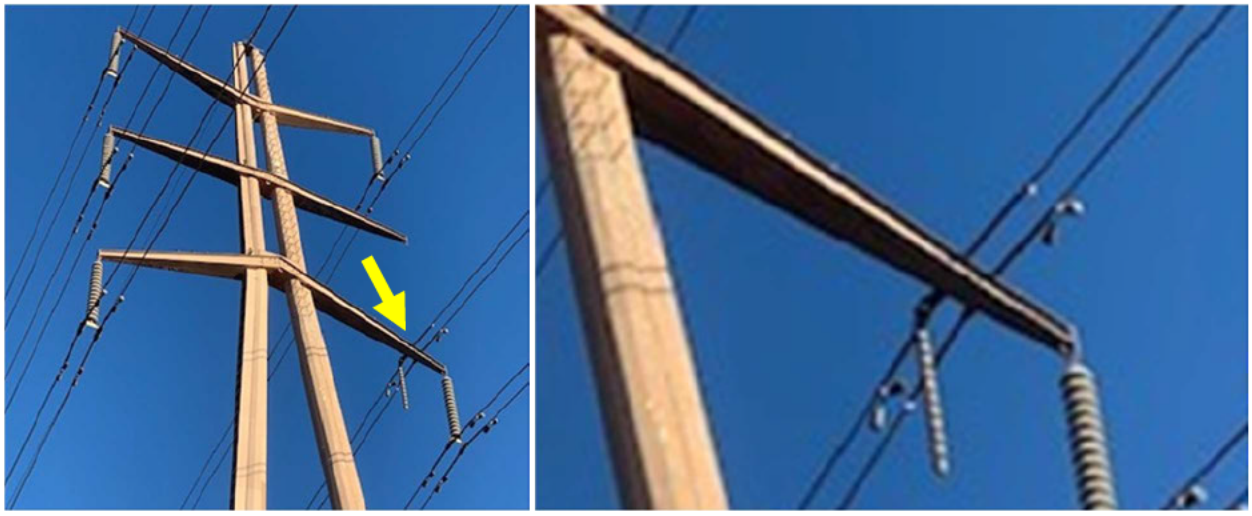


Figure 1: an illustration in SCE's final report showing the locations of towers M2-T5 and M5-T2. We also see towers M2-T4 and M2-T6 located to the left and right of tower M2-T5, respectively.



Figures 2 and 3: A photograph of tower M5-T2 showing the middle B phase conductor that fell onto the lower supporting arm on October 11, 2019 (source: Enrique Camacho of OWR Nursery, 14220 Tyler Street, Sylmar). The yellow arrow was added to identify the contact location of the 220 kV conductor and the lower tower arm.

On October 25, 2019, ESRB inspected evidence at an SCE service yard. One of the items collected was the Y-clevis end fitting that was used to hold the ceramic string insulator onto the B-phase arm of tower M5-T2. The broken ends of the Y-clevis end fitting showed signs of fatigue, e.g., beach marks, and corrosion on the fracture surface (see Figure 5). SCE indicated that it believes that the Y-clevis end fitting, likely a Lindsey brand fitting forged from galvanized steel, was installed in 1970 and had an expected service life of 100+ years.

ESRB inspected three of the four wind dampers that were originally supported on the B phase conductor; however, one of the wind dampers was not inspected as SCE did not retrieved it.

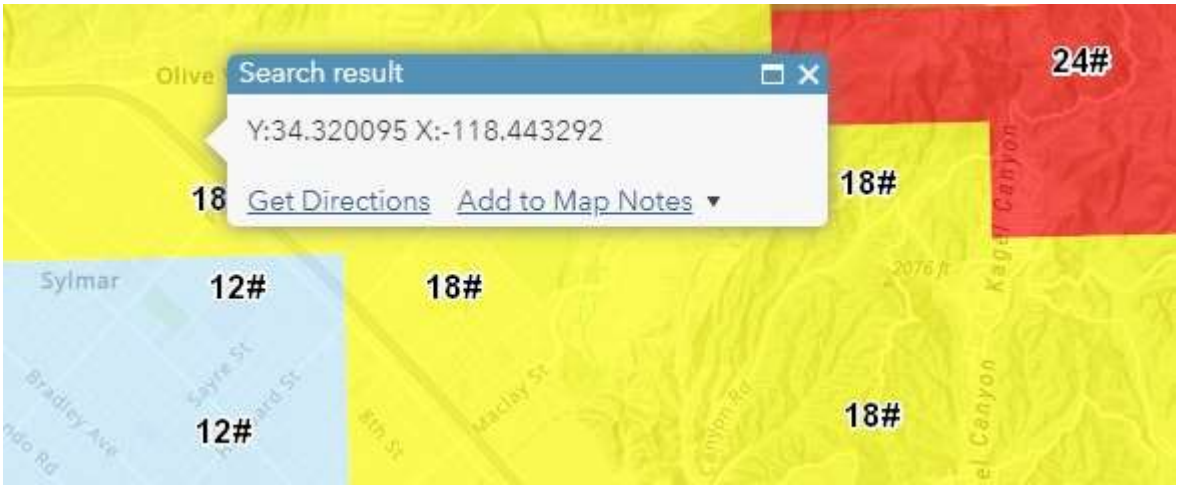


Figure 4: SCE wind loading map used for pole loading with GPS coordinates of tower M5-T2.

Figure 5: a photograph taken on October 25, 2019, at the evidence inspection at the SCE service yard, shows corrosion on the failed section of Y-clevis that supported the B-phase 220 kV conductor on tower M5-T2.

Another piece of evidence that ESRB considered from a photograph from the Los Angeles Fire Department (see Figure 6). The photograph shows unusual burning on the footing on Tower M2-T4, which is one tower away from Tower M2-T5[1].

[1] LAFD Fire Investigation Report No. 2019-10-0664 states, "additional towers were surveyed for damage. At Tower 2/4, I observed high heat burn patterns at its base including spalling of the concrete. These patterns did not appear to be consistent with the fuel load and fuel arrangement in this area. It is possible the damage may be related to the catastrophic failure at Tower 5/2."

Figure 6: LAFD photograph showing evidence of unusual burning on one of the footings on Tower M2-T4.

On November 7, 2019, SCE performed a foundation resistance test on tower M5-T2 and obtained resistance values of 0.552 Ω, 0.611 Ω, and 0.799 Ω at 150 feet, 300 feet, and 450 feet from the base of the tower.

On November 25, 2019, SCE performed a foundation resistance test on tower M2-T5 and obtained resistance values of 0.704 Ω, 0.755 Ω, and 0.928 Ω at 150 feet, 300 feet, and 450 feet from the base of the tower.

On November 26, 2019, SCE performed a foundation resistance test on tower M2-T4 and obtained resistance values of 0.455 Ω, 0.488 Ω, and 0.641 Ω at 150 feet, 300 feet, and 450 feet from the base of the tower.

On November 3, 2023, ESRB obtained a copy of Los Angeles County Fire Department (LAFD) Fire Investigation Report No. 2019-10-0664 dated June 29, 2023. The report states in part:

> *Based upon the witness statements, fire pattern indicators and surveillance video, I formed the opinion the fire started near the base of Southern California Edison (SCE) Tower 2/5 along the Gould-Sylmar 220 kV transmission line. After finding no evidence of any criminal activity, I formed the opinion this is an accidental fire. About three minutes before the fire was reported, Tower 5/2, on the same transmission line, experienced a catastrophic failure of an idler insulator causing the B phase to ground fault during high winds. It is outside my expertise to opine if this catastrophic failure could cause high voltage to travel back through the conductors or lighting wire on the top of the towers and cause a fire, possibly through the tower's grounding system, at the base of Tower 2/5. Therefore, the cause of the fire will be undetermined.*

GO 95, Rule 31.1: Design, Construction and Maintenance, states in part:

> *Electrical supply and communication systems shall be designed, constructed, and maintained for their intended use, regard being given to the conditions under which they are to be operated, to enable the furnishing of safe, proper, and adequate service.*

GO 95, Rule 44.3: Replacement, states in part:

> *Lines or parts thereof shall be replaced or reinforced before safety factors have been reduced (due to factors such as deterioration and/or installation of additional facilities) in Grades "A" and "B" construction to less than two-thirds of the safety factors specified in Rule 44.1 and in Grade "C" construction to less than one-half of the safety factors specified in Rule 44.1.*

ESRB discovered two instances in which SCE was in violation of GO 95, Rules 31.1 and 44.3:

1. **Broken skyline jumper wire on M2-T6**: The photograph in Figure 7, taken on October 12, 2019, of tower M2-T6, located just east of M2-T5, showed a broken skyline jumper wire. The "skyline" (alternatively referred to as a "static line" or "shield wire") has multiple functions, including directing lightning strikes to ground, contributing to the grounding system during a fault event, and supporting communications cables. After the incident, SCE discovered and repaired the broken skyline jumper wire. SCE indicated that a skyline jumper wire provides an optimal path but is not necessary when there are no insulators on the skyline. However, because SCE chose to install a jumper wire on the skyline, SCE is required to ensure that the jumper is maintained. SCE is in violation of GO 95, Rule 31.1 for failing to design, construct, and maintain the skyline jumper wire so that it will not break under normal operating conditions. Additionally, SCE is in violation of GO 95, Rule 44.3 for failing to ensure that the skyline jumper wire maintained a minimum safety factor of 1.33.

2. **Broken Y-clevis end fitting on M5-T2**: In this incident, the Y-Clevis end fitting on tower M5-T2 failed, causing the B-phase conductor it was supporting to fall onto an underbuilt steel arm. SCE is also in violation of GO 95, Rule 31.1 for failing to design, construct, and maintain the Y-clevis end fitting for its intended use so that it will not break under normal operating conditions. Additionally, SCE is in violation of GO 95, Rule 44.3 for failing to ensure that the Y-clevis end fitting maintained a minimum safety factor of 1.33.

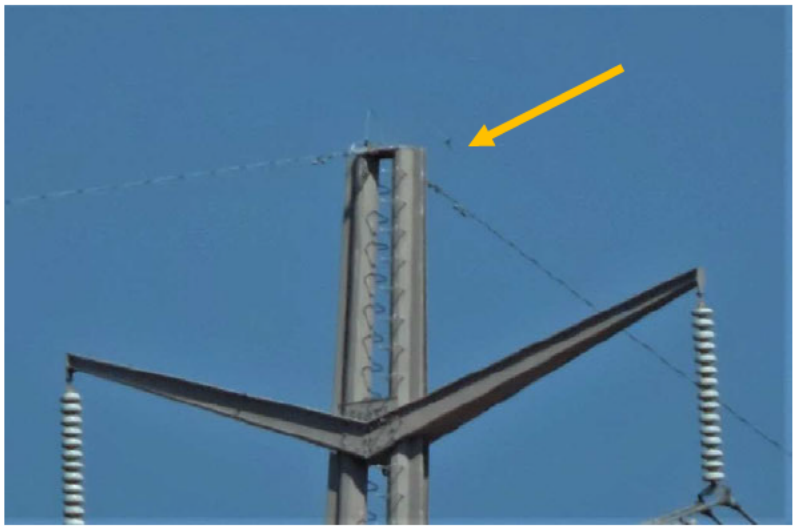


Figure 7: A photograph of Tower M2-T6 with an arrow pointing to the detached skyline on the top of the tower.

GO 95, Rule 48.2: Structural Material (other than wood) [revised March 30, 1968 by Decision No. 73813 and applicable to a structure installed in 1970] states in part:

> *Structural members and their connections, shall be designed and constructed so that the structures and parts thereof will not fail or be seriously distorted at any load less than the maximum working loads developed under the construction arrangement with loadings as specified in Rule 43) multiplied by the safety factors specified in Rule 44.*

In this incident, the Y-clevis end fitting on tower M5-T2 failed, causing the B-phase conductor it was supporting to fall onto an underbuilt steel arm. The steel Y-clevis end fitting is a member of the tower structure. Together with other components, the Y-clevis end fitting is intended to provide the structural support needed to hold an overhead conductor safely and securely. The Y-clevis end fitting is one of the most vital members of the tower structure because it is the only component that attaches the string insulator and associated conductor to the steel arm (meaning there are no redundant components that can assume the structural load of the Y-clevis end fitting if the Y-clevis end fitting was to fail). Since tower M5-T2 was installed in 1970, the rule that governed the design and construction of steel structural members and their connections would have been GO 95, Rule 48.2: Structural Material, revised on March 30, 1968 by CPUC Decision No. 73813. This rule required utilities to design and construct structural members and their connections in such a way that the structure or parts thereof will not fail or become seriously distorted at any load less than their maximum working loads multiplied by the applicable safety factor. For the date and time during which the Y-clevis end fitting failed, there is no evidence to suggest that loading conditions were abnormal or in any way greater than the maximum working load multiplied by the applicable safety factor. Therefore, SCE is in violation of GO 95, Rule 48.2 [revised March 30, 1968 by Decision No. 73813 and applicable to a structure installed in 1970] for failing to design and construct the Y-clevis end fitting in such a way that it would not fail or be seriously distorted at any load less than the maximum working load multiplied by the safety factor in Rule 44.

Although the LAFD Fire Investigation Report states that the cause of the fire is undetermined, ESRB notes that the General Order 95 violations listed above, under certain circumstances, could have led to a fire ignition.

Preliminary Statement of Pertinent General Order, Public Utilities Code Requirements, and/or Federal Requirements:

	General Order	*GO Rule*	*Violation*
1.	GO 95	Rule 31.1	Yes
2.	GO 95	Rule 44.3	Yes
3.	GO 95	Rule 48.2	Yes

Conclusion:

ESRB's investigation discovered 5 violations on the part of SCE:

- SCE is in violation of GO 95, Rule 31.1 for not maintaining the skyline jumper wire on tower M2-T6 for its intended use.
- SCE is in violation of GO 95, Rule 44.3 for failing to ensure that the skyline jumper wire on tower M2-T6 maintained a minimum safety factor of 1.33.
- SCE is in violation of GO 95, Rule 31.1 for failing to maintain the Y-clevis end fitting on tower M5-T2 for its intended use.
- SCE is in violation of GO 95, Rule 44.3 for failing to ensure that the Y-clevis end fitting on tower M5-T2 maintained a minimum safety factor of 1.33.
- SCE is in violation of GO 95, Rule 48.2 [revised March 30, 1968 by Decision No. 73813 and applicable to a structure installed in 1970] for failing to design and construct the Y-clevis end fitting on tower M5-T2 in such a way that it would not fail or be seriously distorted at any load less than the maximum working load multiplied by the safety factor in Rule 44.

Appendix

In the Southern California Edison Company Grid Operations and Maintenance Division, "Maintenance Practices for Transmission Facilities under the Control of the California Independent System Operator (ISO)", several of the versions provided in data request no. 2 mentioned the use of climbing for detailed inspections.

Original Version - December 23, 1997, Revision 1 - January 8, 2001, Revision 2 – January 3, 2002, Revision 3 – December 31, 2005, defines the term detailed inspection, and describes inspections methodologies as follows:

> ***3.3.1 – Detailed*** *– A definitive maintenance inspection to follow up abnormal conditions identified during a routine inspection of a Transmission Facility.*
>
> ***5.1.1.1 – Establishment of Inspection Frequency -*** *The nature, extent, and priority of the detailed inspection will be established and scheduled by the supervisor. The Detailed Inspection may incorporate climbing the transmission structure or the use of diagnostic assessments, such as infrared scanning, and provide an in-depth analysis of the suspected problem. Detail inspections are performed on an as-needed basis.*
>
> ***5.1.1.2 – Inspections Methodologies*** *–Detailed (climbing) inspections, such as checking lattice steel towers for loose steel or worn hardware, are performed on an as-needed basis.*

Revision 4 – January 2011, defines the term detailed inspection, and describes inspections methodologies stated in part as the following:

> ***3.6 – Detailed (Transmission)*** *– A systematic, technical appraisal or diagnostic testing of facilities*
>
> ***5.1.2.3 - Detailed Inspection -*** *often accomplished by climbing support structures or towers to identify broken, missing or worn hardware. Also includes, but is not limited to the excavation of soil, intrusive testing of wood poles and performing infrared scans.*

Revision 6 – February 7, 2018, mentioned the inspection frequency in addition to the ascending and descending of towers of detailed inspections in table 5.1.3 Frequency. Per row "Overhead Lines and Communication Circuits" and column "Detailed Inspections" of the table, detailed inspections are to be conducted every 36 months, with superscript 7 stating "*Lattice towers in high-wind areas are (to)be subject to additional Maintenance, including but not limited to ascending/descending towers, ringing steel members, and tightening hardware.*".

> ***3.5 – Detailed*** *- A careful visual assessment performed in close proximity to or while upon a structure for the purpose of identifying, prioritizing, and recording discrepancies. This activity includes performing minor or temporary repairs during the inspection and special technical evaluation as needed.*

> ***5.1.2.3 - Detailed Inspection*** *- A close proximity assessment to identify broken, missing or worn conductors, insulators, or hardware. This activity includes the excavation of soil, and testing poles and structures.*

Revision 7 effective: 06/01/2021. The procedure document was signed after the effective date but mentions under Section 7 Revision History a letter from CAISO that "confirms" implementation of Revision 7 to be effective as of 06/01/2019, prior to the date of the incident. Revision 7 defines detailed inspections and methodology as the following (and, as in Revision 6, defines the detailed inspections to 36 months):

> ***3.5 - Detailed -*** *A careful visual assessment performed in close proximity to or while upon a structure for the purpose of identifying, prioritizing, and recording discrepancies. This activity includes performing minor or temporary repairs during the inspection and special technical evaluation as needed.*

> ***5.1.2.3 - Detailed Inspection*** *- A close proximity assessment to identify broken, missing or worn conductors, insulators, or hardware. This activity includes the excavation of soil, and testing poles and structures*

On February 16, 2019, prior to the incident, SCE performed detailed inspections on towers M2-T4, M2-T5, M2-T6, and M5-T2. SCE inspectors performed detailed inspections while standing on the ground and using binoculars. No additional tools were used.

In June 2019, prior to the incident, SCE patrolled towers M2-T4, M2-T5, M2-T6, and M5-T2. The patrols consisted of visual inspections from ground level.

ATTACHMENT 3

EMAILS FROM THE ACTON TOWN COUNCIL TO SCE STAFF REQUESTING THAT THE COUNCIL BE ADDED TO THE DISTRIBUTION LIST FOR PSPS NOTIFICATIONS.

Fwd: Request for PSPS notices

1 message

Acton Town Council <atc@actontowncouncil.org> Mon, Dec 1, 2025 at 3:55 PM
To: David A Ford <David.A.Ford@sce.com>, Rochelle K Silsbee <ROCHELLE.SILSBEE@sce.com>, Acton Town Council <atc@actontowncouncil.org>

Dear Mr. Ford and Ms. Silsbee;
The Acton Town Council is again asking SCE to add us to the distribution list for PSPS notices. Without such notices, the Acton Town Council is unable to fully and effectively participate in public comment opportunities that pertain to SCE PSPS Post Event Reports
This request has been sent to you repeatedly over the last 10 months, and it is persistently ignored. You do not even bother to respond. What is the reason for this? Why is SCE deliberately and unreasonably interfering with the Acton Town Council's participation in the public process?
Regards
Jacqueline Ayer
Utilities Committee Chair

---------- Forwarded message ---------
From: **Acton Town Council** <atc@actontowncouncil.org>
Date: Wed, Nov 5, 2025 at 2:07 PM
Subject: Request for PSPS notices
To: David A Ford <David.A.Ford@sce.com>, Rochelle K Silsbee <ROCHELLE.SILSBEE@sce.com>, Acton Town Council <atc@actontowncouncil.org>

Dear Mr. Ford and Ms, Silsbee;
The ATC has heard from residents that PSPS notices were issued last week; the ATC did not receive any such notices, so it appears that we are still not on the notification list for SCE PSPS events in Los Angeles County.
Can you please add us to the list so that we receive all PSPS emails (including spreadsheets, imminent deenergization notices, imminent reenergization notices, and all shutdown notices) like we used to? This has been requested several times over the last 10 months, but no response is ever provided, and no notices are sent.
Sincerely;
Jacqueline Ayer
Utilities Committee Chair

Re: PSPS? Really?

1 message

Acton Town Council <atc@actontowncouncil.org> Sun, Sep 7, 2025 at 1:47 PM
To: David A Ford <David.A.Ford@sce.com>, Acton Town Council <atc@actontowncouncil.org>, Rochelle K Silsbee <ROCHELLE.SILSBEE@sce.com>, Anuj Desai <Anuj.Desai@sce.com>

Incidentally, the Acton Town Council received no warning of this ongoing PSPS event; would you please put the ATC back on the distribution list for all PSPS notifications involving ALL FOUR CIRCUITS in Acton: Shovel, Bootlegger, Sand Canyon and Pick. Also, kindly forward to us all the warning emails that were sent out for this ongoing PSPS event with their original date and time stamps showing.
Thank you in advance for your time and attention
Jacqueline Ayer
Utilities Committee Chair

On Sun, Sep 7, 2025 at 1:23 PM Acton Town Council <atc@actontowncouncil.org> wrote:

> Hello David;
> I first want to let you know there are peaches at Bloom Ranch; I bought a bunch on Friday and they are delicious. Second, SCE issued PSPS warnings late last night to Acton residents and then issued new warnings again just 20 minutes ago. There appears to be no reason for it. Below is a screenshot of current and projected weather in the Western San Gabriels from the National Weather Service; nothing in it comes anywhere near the thresholds at which SCE is permitted to cut power in Acton. So why does SCE continue to threaten our community with power shutoffs? Every time SCE does this, it causes A LOT of problems and SCE is not permitted to create these problems without "good cause". Just what is the "good cause" this time?
> Jacki

Western Angeles National Forest

TODAY...
Sky/Weather.....Sunny.
Max temperature.....87-94 low elevations to 77-85 higher
elevations.
24 hr trend.....Little change.
Min humidity.....12-25 percent.
24 hr trend.....Little change.
20-foot winds.....
Valleys.....West 5-10 mph becoming southwest 10-20 mph with
gusts to 30 mph in the afternoon.
Ridges.....West 5-10 mph becoming southwest 10-20 mph with
gusts to 30 mph in the afternoon.
Marine layer.....None.
CWR (>0.10 in).....0 percent.

TONIGHT...
Sky/Weather.....Clear.
Min temperature.....56-65.
Max humidity.....30-50 percent.
20-foot winds.....
Valleys.....Southwest 8-15 mph with gusts to 25 mph.
Ridges.....Southwest 8-15 mph with gusts to 25 mph.
CWR (>0.10 in).....0 percent.

MONDAY...
Sky/Weather.....Sunny.
Max temperature.....84-91 low elevations to 76-82 higher
elevations.
Min humidity.....20-30 percent.
20-foot winds.....
Valleys.....Southwest 8-15 mph with gusts to 25 mph.
Ridges.....Southwest 8-15 mph with gusts to 25 mph.
CWR (>0.10 in).....0 percent.

EXTENDED...
TUESDAY...Clear. Lows from the mid 50s to lower 60s at low elevations to the upper 30s to mid 40s in colder valleys and peaks. Highs from the mid 70s to mid 80s at low elevations to the mid 60s to lower 70s at high elevations. Northwest winds 10 to 20 mph with gusts to 30 mph.

WEDNESDAY...Clear. Lows from the 50s to around 60 at low elevations to the upper 30s to mid 40s in colder valleys and peaks. Highs from the 70s to around 80 at low elevations to the lower to mid 60s at high elevations. Northwest winds 10 to 20 mph with gusts to 30 mph.