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Exhibit Number	:	CA-05
Commissioner	:	M. Baker
Admin Law Judge	:	R. Haga
Witness	:	A. Asadi

PUBLIC ADVOCATES OFFICE
CALIFORNIA PUBLIC UTILITIES COMMISSION

TESTIMONY ON PREVENTIVE MEASURES FOR WILDFIRE RISK FOR MOUNTAIN VIEW FIRE COST-RECOVERY APPLICATION

Reasonableness of Operations Prior to Ignitions

PUBLIC

San Francisco, California
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REASONABLENESS OF OPERATIONS

I. INTRODUCTION

This exhibit pertains to the application of Liberty Utilities (CalPeco Electric) LLC, ("Liberty") to recover costs associated with the Mountain View Fire (Application 25-06-017).

This exhibit presents the analyses of the Public Advocates Office (Cal Advocates) regarding the reasonableness of Liberty's practices and operations relating to its Public Safety Power Shutoff (PSPS) program and decision making.

This exhibit relates specifically to Exhibit Liberty-03, Liberty's testimony on prudence of operations.[1]

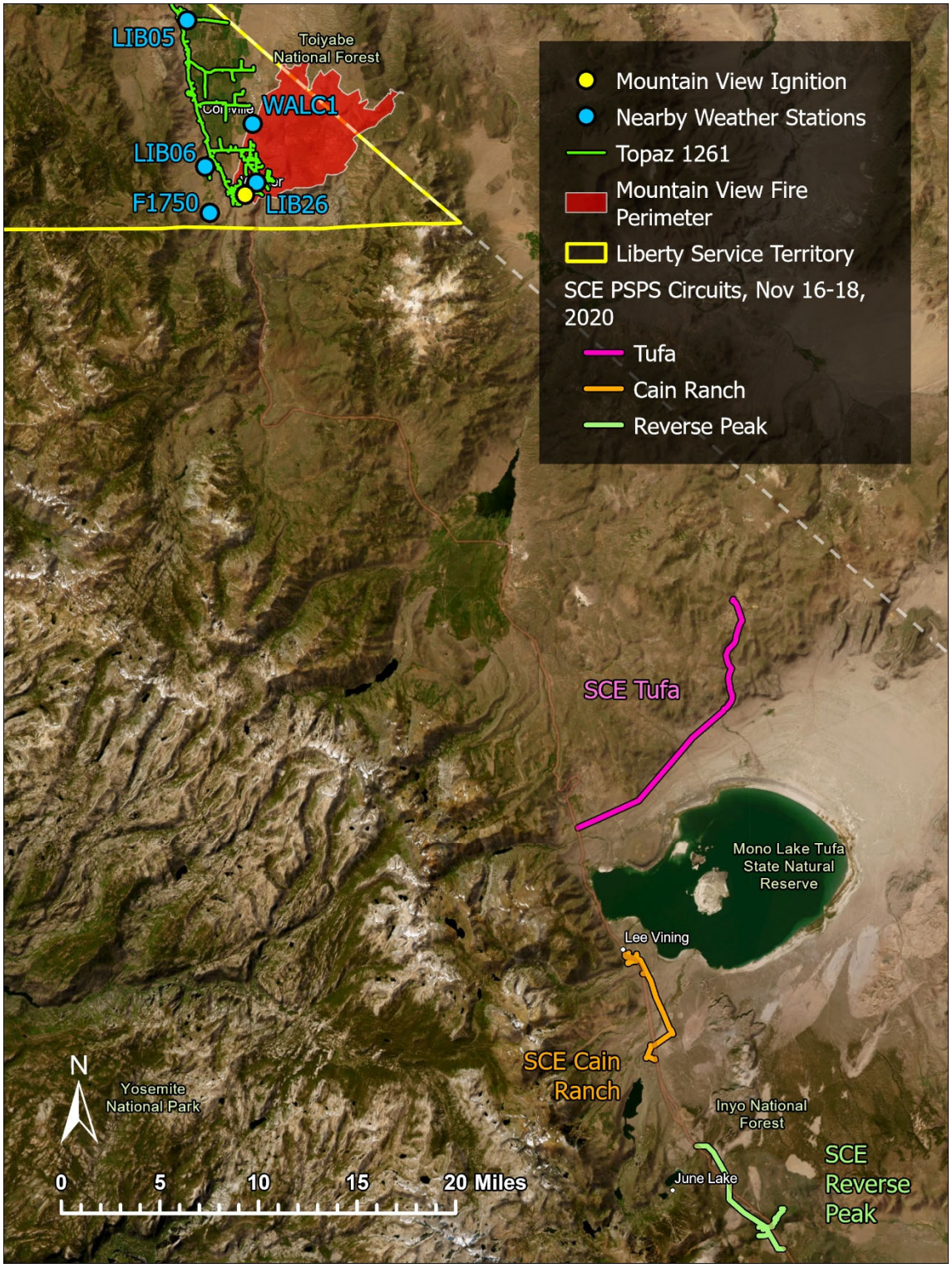
II. PREVENTIVE MEASURES FOR WILDFIRE RISK

A. SCE De-energized Its Own Circuits in Mono County Hours Prior to the Mountain View Fire Ignition in Response to the Same Weather Event.

On November 17, 2020, at the time of the Mountain View ignition, SCE had initiated a PSPS event and de-energized two circuits adjacent to Liberty's Mono County service territory and the Topaz 1261 circuit. Figure 1 below illustrates the location of SCE's de-energized circuits in relation to Topaz 1261 and the Mountain View ignition site. Figure 1 shows that SCE's Tufa circuit was approximately 30-35 miles away from the Mountain View ignition site.

[1] Exhibit (Ex.) Liberty-03.

Figure 1:
Map of the SCE circuits that SCE de-energized on November 17, 2020 in proximity to Topaz 1261 circuit.[2, 3]



On November 14, 2020, SCE notified the Southern California Geographical Coordination Center (GACC) and the Commission that it was activating its Public Safety Power Shutoff Incident Management Team (PSPS IMT) due to forecasted "elevated fire weather for portions of the SCE territory beginning November 17 at 12:00 pm and continuing through November 18 at 12:00 pm."[4] SCE's "weather forecasts identified circuits in Inyo, Mono, San Bernardino, Kern, and Ventura counties as having circuits that may require the use of PSPS."[5]

On Sunday, November 15, 2020, SCE forecasted that on Tuesday, November 17, 2020, its service territory in the Eastern Sierras of Mono County below 7000 feet would experience Moderate Fire Threat.[6] SCE's forecast stated to "[e]xpect strong winds to combine with humidity levels in the 10-20% range to bring peak fire weather threats on Tuesday Afternoon."[7]

On Monday, November 16, 2020, SCE continued to forecast that on Tuesday, November 17, 2020, its service territory in the Eastern Sierras of Mono County below 7000 feet would experience a period where "there will likely be several hours of [relative humidity] staying below 15% under partly to mostly sunny skies" and that "[f]uels in these areas remain very dry – especially in the dead fuels."[8] Further, SCE's forecast

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[2] Attachment 1, SCE Q4 2020 Quarterly Data Report, February 5, 2021 (Attachment 1). Provides SCE's PSPS de-energization data.

[3] Attachment 2, Liberty's response to data request CalAdvocates-LIB-A2506017-006, question 1, September 5, 2025, GIS geodatabase file "WEMA_RequestedData.gdb" (Attachment 2). Provides Topaz circuit data.

[4] Attachment 3, *SCE PSPS Post Event Report – November 14 to November 18, 2020, December 4, 2020* (Attachment 3) at 3.

[5] Attachment 3 at 3.

[6] Attachment 4, SCE's response to data request CalAdvocates-SCE-A2506017-001, question 1, September 22, 2025 (Attachment 4), attachment "ThreatLevelMatrix_Notes_20201115.pdf" at 1. SCE's categorized Fire Weather Threat on a scale of 1 (Low(Minor)) to 5 (Major(Extreme)) where 3 was Moderate(Critical) which meant "upon ignition, rapid fire spread may occur across portions of the region. Weather and fuels will be conducive to fire spread with the possibility of fuels being highly receptive. Peak FPIs will generally be around 13-15."

[7] Attachment 4, question 1, attachment "ThreatLevelMatrix_Notes_20201115.pdf" at 2.

[8] Attachment 4, question 1, attachment "ThreatLevelMatrix_Notes_20201116.pdf" at 2.

warned that the "gusty winds and low [relative humidity] would allow for very rapid rates of spread during the daylight hours."[9] SCE de-energized four of its circuits in Kern County that day.[10]

On November 17, 2020, at "approximately 4:00 am the PSPS IMT observed dangerous fire weather conditions exceeding wind and FPI thresholds on circuits in Mono, Inyo, and Los Angeles county."[11] On the morning of November 17, 2020, SCE de-energized two circuits in Mono County.[12] SCE de-energized one customer on its Tufa circuit at 7:45am and 22 customers on its Cain Ranch circuit at 8:41am.[13] Table 1 below shows the wind speeds that SCE observed just prior to de-energizing the Tufa and Cain Ranch circuits and their respective de-energization thresholds.

Table 1:
Sustained wind speeds and wind gusts of SCE's de-energized circuits.[14, 15]

Circuit	Time	Sustained Wind Threshold (mph)	Observed Sustained Wind (mph)	Wind Gust Threshold (mph)	Observed Wind Gust (mph)
Tufa[16]	7:45 am	31	26	46	38
Cain Ranch[17]	8:41 am	31	28.8	46	56.2

[9] Attachment 4, question 1, attachment "ThreatLevelMatrix_Notes_20201116.pdf" at 2.

[10] Attachment 3 at 5. SCE de-energized its Grapevine Peak, Frozen, Mettler, and Cuddeback circuits.

[11] Attachment 3 at 4.

[12] Attachment 3 at 5. SCE de-energized Tufa and Cain Ranch in the morning, one in the afternoon (SCE de-energized Birchim circuit at two isolation devices at 1:18 pm) and one at night (Reverse Peak at 8:51 pm) in Mono County.

[13] Attachment 3 at 5.

[14] Attachment 3 at 5 and 9.

[15] Attachment 5, SCE's response to data request CalAdvocates-SCE-A2506017-001, question 3(a) and (b), September 22, 2025 (Attachment 5). SCE clarified that the Sustained Wind and Wind Gust values were real-time or observed values.

[16] Attachment 3 at 9. SCE de-energized the Tufa circuit because of the high wind trend (expected to exceed wind threshold) and it exceeded its FPI threshold.

[17] Attachment 3 at 9. SCE de-energized the Cain Ranch circuit because it exceeded wind thresholds and exceeded its FPI threshold.

Meanwhile, Liberty's Topaz 1261 circuit experienced wind gusts that hit Liberty's own wind gust threshold of 45 mph[18] at 6:50 am and then again at 9:50 am.[19] From 9:50 am to the first 911 call reporting the fire at 11:58 am,[20] the wind speeds near the ignition site stayed above 40 mph and ultimately reached 66 mph.[21] Figure 2 below shows the wind gust speeds for the Topaz 1261 circuit using Liberty's nearest weather station (LIB26/LIB-2130) data. Wind gust speeds remained above SCE's standard wind gust threshold (46 mph)[22] as well as Liberty's 2019 wind gust threshold (50 mph)[23] in the period leading up to the ignition and afterwards while the Mountain View Fire grew.

[18] Ex. Liberty-03 at 39. Liberty's wind gust threshold for its Topaz 1261 and Muller 1296 circuits was 45 mph.

[19] Attachment 6, University of Utah, MesoWest at: https://mesowest.utah.edu/ (Attachment 6). For LIB26.

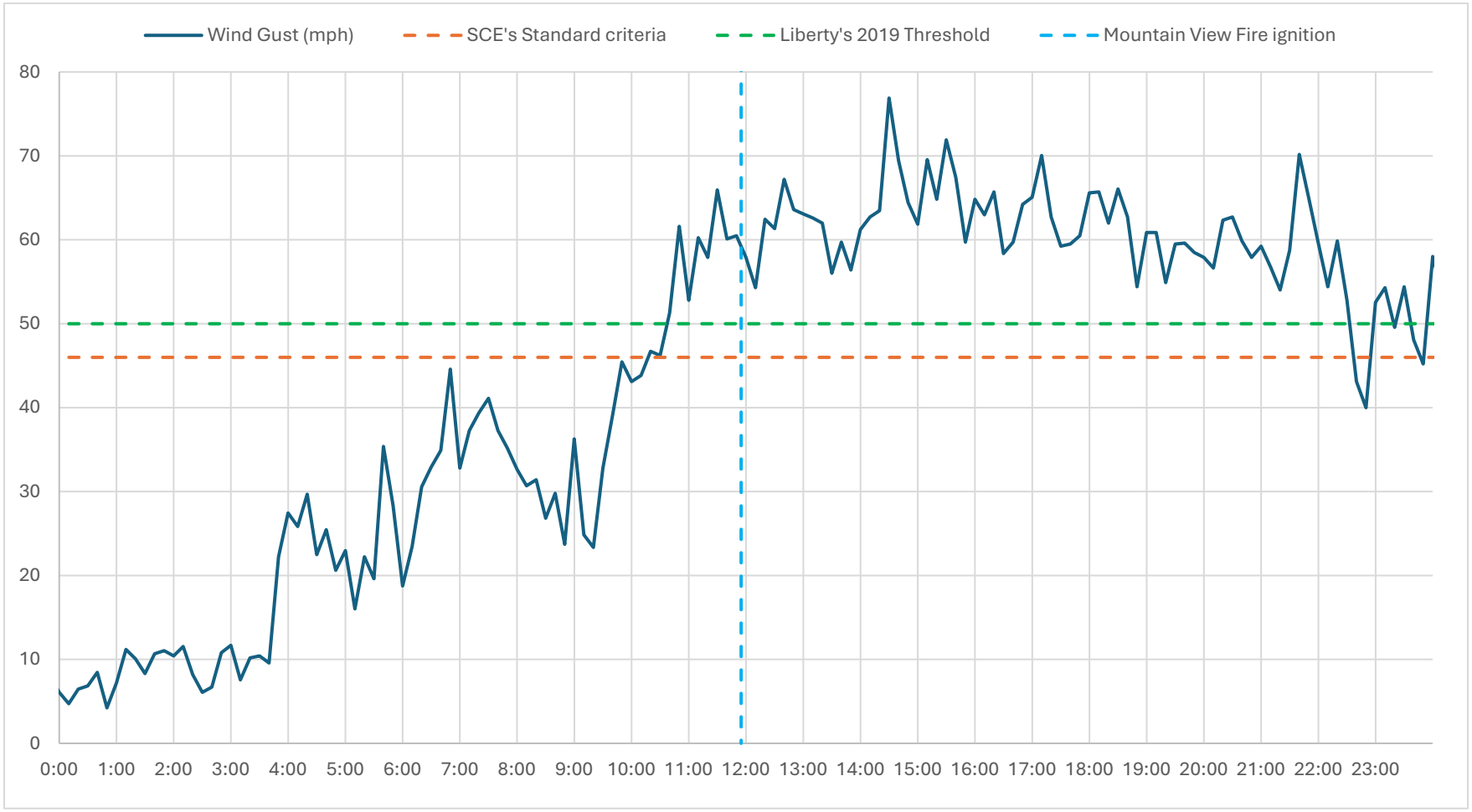
[20] Ex. Liberty-02 at 2.

[21] Attachment 6. For LIB26.

[22] Attachment 3 at 9. SCE's standard wind gust threshold of 46 mph was based on National Weather Service Wind Advisory levels.

[23] Ex. Liberty-03 at 37. "This early version of Liberty's PSPS protocol required the utility to dispatch crews to monitor field conditions when wind speeds reached 50 mph for greater than three seconds and allowed de-energization if wind speeds exceeded that threshold and a line posed a hazard."

Figure 2:
Graph of wind gust speeds on Topaz 1261 circuit on November 17, 2020.[24]



[24] Attachment 6. For LIB26.

B. SCE Used Lower Thresholds for Circuits That Had a History of Local Circuit Outages at Lower Wind Speeds.

In its November 14, 2020 PSPS event, SCE's thresholds were 31 mph for sustained wind and 46 mph for wind gust speeds for most of the circuits that SCE de-energized on November 17, 2020.[25] However, SCE assigned three circuits (Mettler, Cuddeback, and Shovel circuits) much lower sustained wind and wind gust thresholds than the other circuits that it de-energized on November 17, 2020, see Table 2 below.[26] SCE explained that the reason that it assigned its Mettler, Cuddeback, and Shovel circuits lower thresholds was because it considered those circuits "outage informed circuits," meaning that SCE was aware that these circuits had a "history of local circuit outages at lower wind speeds" than the NWS advisory level of 31 mph sustained wind and 46 mph wind gust thresholds.[27]

[25] Attachment 3 at 9-10.

[26] Attachment 3 at 9-10.

[27] Attachment 5, question 3e.

Table 2:
Sustained wind speed thresholds and wind gust thresholds of SCE's de-energized circuits.[28]

SCE's De-energized Circuit(s)	Sustained Wind Threshold (mph)	Wind Gust Threshold (mph)
Mettler	23	37
Cuddeback	23	37
Shovel	25	40
Grapevine Peak, Frozen, Tufa, Cain Ranch, Sand Canyon, Birchim, Birchim,[29] Reverse Peak	31	46

Notably, the two circuits that SCE de-energized (Tufa and Cain Ranch) in Mono county on the morning of the Mountain View Fire ignition were not included in SCE's outage informed circuit list and thus had higher sustained wind and wind gust thresholds than SCE's outage informed circuits (Mettler, Cuddeback, and Shovel). This shows that SCE used knowledge of its own local circuit outage history and made adjustments to thresholds based on that information.

C. Liberty's Topaz Circuit Had a History of Local Outages Due to Wire Slap, Sometimes Occurring at Relatively Low Wind Speeds.

In contrast to SCE, Liberty set higher PSPS thresholds for the Topaz 1261 circuit than its typical circuits despite knowing that the Topaz 1261 circuit had an extensive history of outages from wire slap, which ultimately would cause the Mountain View

[28] Attachment 3 at 9-10.

[29] Attachment 3 at 9-10. Birchim is listed twice.

ignition. Wire slap (or conductor slap) occurs when two conductors come into contact due to outside factors, such as wind, which creates an ignition risk.[30]

In the four year period leading up to the Mountain View ignition, Liberty identified 21 outages on the Topaz 1261 circuit likely to have been caused by wire slap.[31] Liberty was well aware of the fragility of the Topaz 1261 circuit. In its 2019 GRC, Liberty explained that the Topaz "1261 circuit is located in an area that frequently experiences high winds and freezing temperatures" and that "[c]ombined with the age of overhead lines, these conditions have caused significant damage to the conductors" which "tend to break under the strain of ice and wind and exacerbate the deficiency of proper wire sag between poles causing the lines to be repeatedly spliced back together."[32] Cal Advocates did "not oppose Liberty's $0.81 million proposed 2019 forecast for this project."[33]

Table 3 shows the outages that Liberty identified as "suspected wire slapping events" from 2016 through 2020.[34] Cal Advocates approximated the wind speed and wind gust speed at the time of these outages using data from the nearest available weather station. (Liberty's LIB05 or LIB06, or the publicly available Walker Remote Automated Weather Station (RAWS) (WALC1) weather stations).

[30] Attachment 7, American National Standards Institute, AMPP TR1505-2022: Wildfires Damage to Combustion Products, January 21, 2025 (Attachment 7). Available at: https://blog.ansi.org/ansi/ampp-tr1505-2022-wildfires-impact-on-power-lines/.

[31] Attachment 8, Liberty response to data request CalAdvocates-LIB-A2506017-032, question 4, October 31, 2025 (Attachment 8). Liberty identified 21 but only provided coordinates for 18 of them.

[32] Attachment 9, Liberty Utilities 2019 General Rate Case (A.18-12-001), Ex. Liberty-02, Chapter 2: Capital, November 30, 2018 (Attachment 9) at 6.

[33] Attachment 10, A.18-12-001, Ex. Cal Advocates-07: Capital, July 23, 2019 (Attachment 10) at 6-7.

[34] Attachment 8, question 4. "Liberty identified wire slapping events by reviewing historical outage data for outages where the cause codes or remarks explicitly indicated wire-slapping-related causes…Liberty's OMS records date back to approximately 2016."

Table 3:
Suspected wire slap outages on Topaz 1261 circuit since 2016.[35, 36]

Incident ID	Date and time of outage	Nearest Weather Station	Wind Speed (mph)[37]	Wind Gust (mph)[38]
101	1/29/16 1:54 PM	WALC1	25.0	48.0
6264	4/14/16 4:36 AM	WALC1	22.0	44.0
7067	10/14/16 7:31 AM	WALC1	27.0	44.0
7392	11/19/16 8:22 AM	WALC1	34.0	50.0
7648	12/15/16 6:45 AM	WALC1	19.0	36.0
7755	1/1/17 6:00 PM	WALC1	21.0	42.0
8658	1/9/17 1:22 AM	WALC1	21.0	45.0
12703	1/23/17 2:25 PM	WALC1	12.0	19.0
13123	2/1/17 11:39 PM	WALC1	38.0	54.0
15270	4/12/17 10:42 PM	WALC1	33.0	52.0
17187	10/20/17 12:18 AM	WALC1	34.0	52.0
17340	11/9/17 3:52 AM	WALC1	13.0	33.0
17574	11/26/17 4:52 PM	WALC1	27.0	52.0
17921	1/24/18 4:01 PM	WALC1	29.0	49.0
22711	2/25/19 11:45 PM	WALC1	20.0	39.0
24277	9/16/19 1:04 PM	LIB05	19.6	48.9
24279	9/16/19 6:03 PM	WALC1	17.0	31.0
27841	11/17/20 9:48 AM	LIB26	16.9	45.5

Liberty states that it "established slightly higher thresholds for wind gusts" for its Topaz 1261 and Muller 1296 circuits because these "zones were windier than other PSPS zones under normal weather conditions."[39] However, reviewing the available weather station data against the suspected wire slap outages shows that 27% of these outages occurred at wind gust speeds lower than 40 mph. Similarly, 44% of these outages occurred at wind gust speeds lower than 45 mph. The analysis above does not support assigning the Topaz 1261 circuit a *higher* wind speed threshold (45 mph) than the rest of Liberty's circuits (40 mph).

As a result, Liberty states that it "was proactively rebuilding the Topaz 1261 Circuit to account for local conditions and mitigate wildfire risk," as part of its 2019 General Rate Case (GRC).[40] Liberty referred to this rebuild as the "Topaz Line Rebuild Project."[41] Liberty states that it planned this as "a multi-year project and the original design specified upgrading overhead lines…[l]ater phases involved installation of covered conductor."[42] Liberty also stated that the Topaz Line Rebuild Project would "mitigate the risk of fires sparked from downed wires on the circuit" and that "[s]uch events have resulted in multiple outages (and at least one fire event) and present a potential hazard to public safety."[43]

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[35] Attachment 8, question 4. Liberty identified seven outages in 2016 (IDs: 101, 6264, 7067, **7144**, **7159**, 7392, 7648) and fourteen outages from 2017 to November 17, 2020 (IDs: 7755, 8658, 12703, 13123, 15270, 17187, **17190**, 17340, 17574, 17921, 22711, 24277, 24279, 27841).

[36] Attachment 11, Liberty response to data request CalAdvocates-LIB-A2506017-001, question 12, September 10, 2025 (Attachment 11), attachment "CalAdvocates-LIB-A2506017-001-Q12.xlsx." Liberty provided the coordinate information for 18 of the 21 wire slap outages. Liberty did not provide the coordinate locations for three outages (IDs: **7144, 7159, 17190**).

[37] Attachment 6. For WALC1, LIB05, and LIB06.

[38] Attachment 6. For WALC1, LIB05, and LIB06.

[39] Ex. Liberty-03 at 39.

[40] Ex. Liberty-03 at 17.

[41] Ex. Liberty-03 at 16-17.

[42] Ex. Liberty-03 at 17. "Covered conductor has a protective sheath that protects the conductor from risks associated with contact by animals, vegetation, another line, or the ground, thereby significantly reducing the risk of ignition. The covering also helps protect the equipment from severe winds and extreme cold."

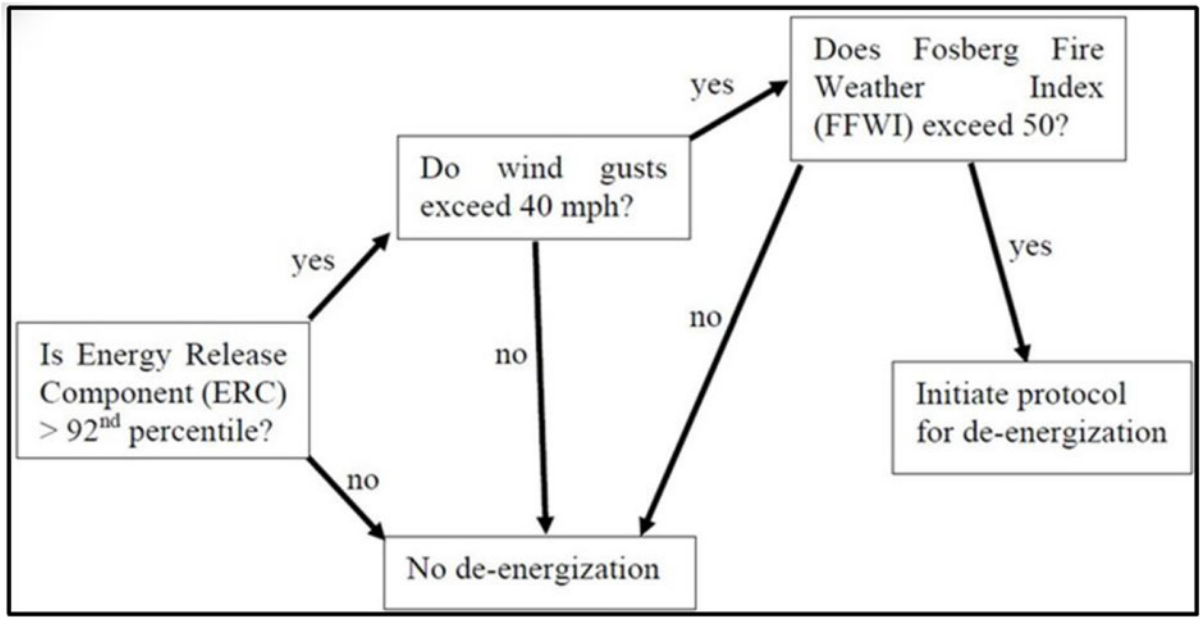
[43] Attachment 9 at 9.

D. Liberty's PSPS Thresholds Were Insufficient.

1. In 2019, Liberty Developed New PSPS Protocols.

Liberty hired a "fire science and risk modeling consultant in 2019 to support developing a more sophisticated PSPS protocol comprising a set of criteria and guidelines for de-energization."[44] Liberty's new PSPS protocol "used a predictive tool to capture three fire weather components: (a) Energy Release Component ('ERC'); (b) wind gusts; and (c) Fosberg Fire Weather Index ('FFWI')."[45] Figures 3 and 4 below show Liberty's de-energization decision trees. Liberty assigned a higher wind gust threshold and higher FFWI threshold for the Topaz 1261 and Muller 1296 circuits (Figure 4) than the rest of Liberty's circuits (Figure 3).

Figure 3:
Liberty's De-energization decision tree for most of Liberty's PSPS Zones (excluding the Topaz 1261 and Muller 1296 circuits).[46]



[44] Ex. Liberty-03 at 37.

[45] Ex. Liberty-03 at 37-38.

[46] Ex. Liberty-03 at 38.

Figure 4:
Liberty's De-energization decision tree for only Liberty's Topaz 1261 and Muller 1296 circuits.[47]

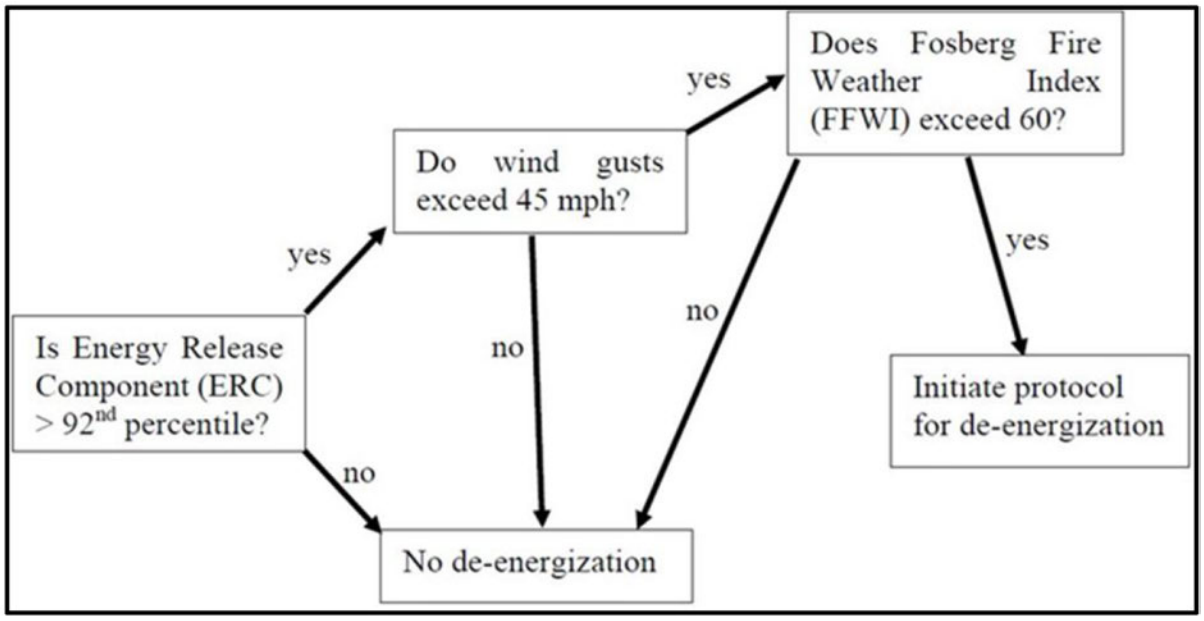


Table 4 summarizes Liberty's de-energization decision criteria. Liberty states that "its third-party fire science and risk modeling expert [Reax Engineering] evaluated practices of other utilities related to PSPS."[48] This review consisted of acknowledgment that eight utilities submitted 2019 Wildfire Mitigation Plans to the Commission but that only three of them "provided specific criteria for de-energization."[49] These three utilities that Reax Engineering chose to evaluate were Bear Valley Electric Service, Liberty Utilities, and PacifiCorp.[50] Notably, Reax does not include any analysis of the PSPS de-energization thresholds for SCE, which is the only other California public utility operating on the east side of the Siera Nevada range. Nor does it analyze thresholds for

[47] Ex. Liberty-03 at 39.

[48] Attachment 12, Liberty amended response to data request CalAdvocates-LIB-A2506017-011, question 4, October 22, 2025 (Attachment 12).

[49] Attachment 8, question 1, attachment "2019-08-20 Liberty Utilities de-energization thresholds_Redacted.pdf" at 3. Liberty's expert states that only three of the Wildfire Mitigation Plans provided specific criteria for de-energization, which were BVES, Liberty Utilities, and PacifiCorp.

[50] Attachment 8, question 1, attachment "2019-08-20 Liberty Utilities de-energization thresholds_Redacted.pdf" at 3.

of San Diego Gas & Electric (SDG&E), or Pacific Gas and Electric Company (PG&E), both companies with extensive experience with PSPS events.[51, 52]

Table 4:
Liberty's PSPS De-Energization Decision criteria.[53]

Liberty's Circuit(s)	Energy Release Component (ERC) Threshold	Wind Gust Threshold (mph)	Fosberg Fire Weather Index (FFWI)
Topaz 1261 and Muller 1296	92 percentile	45 mph	60
All other circuits[54]	92 percentile	40 mph	50

Reax Engineering determined that an "ERC percentile of 92 is recommended for use as a de-energization threshold" because that indicates "an increased probability of fires escaping initial attack and becoming extended attack fires."[55]

Reax Engineering analyzed several "catastrophic suspected powerline fires" and found that the "[m]easured gust speed for stations near the suspected ignition locations ranged from 32 mph to 79 mph, although gust speeds may have been higher at the ignition location, particularly for the lower readings."[56] Reax Engineering then

[51] Attachment 13, Archived PSPS Post-Event Reports 2017-2023 are available at: https://www.cpuc.ca.gov/consumer-support/psps/utility-company-psps-reports-post-event-and-post-season/archived-psps-post-event-reports-2017-2023 (Attachment 13).

[52] Attachment 14, Resolution ESRB-8, July 12, 2018 (Attachment 14) at 5. This required the IOUs to file a report to the Commission within 10 business days after each PSPS event, whether it resulted in de-energization or not.

[53] Ex. Liberty-03 at 38-39.

[54] Attachment 12, question 7b. Liberty states that these thresholds were applicable to "all PSPS zones other than the Topaz 1261 and Muller 1296 circuit zones."

[55] Attachment 8, question 1, attachment "2019-08-20 Liberty Utilities de-energization thresholds_Redacted.pdf" at 9-10.

[56] Attachment 8, question 1, attachment "2019-08-20 Liberty Utilities de-energization thresholds_Redacted.pdf" at 2-3.

concluded that "a wind gust speed threshold of 40 – 45 mph is recommended as a threshold for de-energization of distribution lines."[57]

Reax Engineering stated that a Fosberg Fire Weather Index thresholds "above 50 – 60 are considered conducive to rapid wind-driven fire spread" and that based on the National Oceanic and Atmospheric Administration (NOAA) Storm Prediction Center, "temperatures above 60 F, [relative humidity] values less than 20%, and sustained surface winds above 20 mph will result in Fosberg values above 50, which is a minimum threshold for critical fire weather conditions."[58]

Although Reax Engineering provided Liberty analysis to show how it determined Liberty's de-energization thresholds, it was premature of Liberty to rely on these thresholds without understanding the implications of the decision tree.[59] There were some issues with each decision tree level, as will be discussed further next.

2. Liberty's Energy Release Component Data for the Topaz Zone was Inadequate.

Liberty's fire science and risk modeling expert described the "Energy Release Component (ERC) as "a key index **calculated from Remote Automated Weather Station ('RAWS') observations** as part of the US National Fire Danger Rating System ('NFDRS')."[60] The "physical meaning of an ERC value is 4% of the energy per unit area that would be released during a fire in units of [British Thermal Units (Btu) per square foot" such that "an ERC of 10 corresponds to 250 Btu [per square foot]."[61] Liberty

[57] Attachment 8, question 1, attachment "2019-08-20 Liberty Utilities de-energization thresholds_Redacted.pdf" at 8.

[58] Attachment 8, question 1, attachment "2019-08-20 Liberty Utilities de-energization thresholds_Redacted.pdf" at 9-10.

[59] Attachment 15, Liberty response to data request CalAdvocates-LIB-A2506017-008, question 4, September 5, 2025 (Attachment 15). When asked if Liberty conducted research and examine the practices of other utilities, Liberty answered that it "learned about PSPS practices of other utilities through their wildfire mitigation plans and joint workshops and other discussions in CPUC proceedings."

[60] Attachment 8, question 1, attachment "2019-08-20 Liberty Utilities de-energization thresholds_Redacted.pdf" at 4.

[61] Attachment 8, question 1, attachment "2019-08-20 Liberty Utilities de-energization thresholds_Redacted.pdf" at 4.

"obtained [ERC percentile forecasts] from the U.S. Forest Service Wildland Fire Assessment System ("WFAS") and updated [these forecasts] on Liberty's fire weather dashboard daily."[62]

Indeed, even Reax Engineering's analysis in determining Liberty's de-energization threshold used the seasonal "variations in ERC (for fuel model G) at **Walker RAWS** from 1975-2018."[63] Reax Engineering found that "[d]ata quality from this station [Walker RAWS] is questionable" because "[a]pproximately 500 hourly records were identified wherein wind gust and FFWI thresholds were exceeded between June and October."[64] Further, Reax Engineering stated that "[a]dditional analysis is required to understand if these readings are affected by data quality and whether Walker RAWS is representative of conditions in the Topaz PSPS Zone."[65] When asked to provide this additional analysis, Liberty was unable to and instead stated "the need to rely on RAWS decreased over time as Liberty installed weather stations and began to accrue a statistically significant set of weather data."[66]

The Walker RAWS was the nearest RAWS that it would make sense to calculate ERC from for the Topaz zone, especially since Liberty's consultant Reax Engineering already explained that its analysis was based on the ERC from the Walker RAWS in determining the thresholds for the Topaz zone.[67] However, Reax Engineering indicated

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[62] Attachment 16, Liberty amended response to data request CalAdvocates-LIB-A2506017-017, question 1c, October 22, 2025 (Attachment 16).

[63] Attachment 8, question 1, attachment "2019-08-20 Liberty Utilities de-energization thresholds_Redacted.pdf" at 24 and 26.

[64] Attachment 8, question 1, attachment "2019-08-20 Liberty Utilities de-energization thresholds_Redacted.pdf" at 24.

[65] Attachment 8, question 1, attachment "2019-08-20 Liberty Utilities de-energization thresholds_Redacted.pdf" at 24.

[66] Attachment 17, Liberty response to data request CalAdvocates-LIB-A2506017-037, question 2c, November 22, 2025 (Attachment 17).

[67] Attachment 8, question 1, attachment "2019-08-20 Liberty Utilities de-energization thresholds_Redacted.pdf" at 24 and 26.

that data "quality from this station is questionable."[68] Liberty's consultant questioned the validity of the nearest weather station, the Walker RAWS. Since the ERC percentile forecast relies on the Walker RAWS data, the questionable quality of the data undermines the use of ERC percentile forecasts as a reliable first threshold for the Topaz circuit.

Moreover, when asked which weather station Liberty derived its ERC percentile forecasts from, Liberty was unable to provide this because it obtained these forecasts from the U.S. Forest Service Wildland Fire Assessment System (WFAS) as "an end-user, not a developer, of these ERC percentile forecasts"[69] Liberty did not know which weather station the forecasts came from, therefore Liberty cannot demonstrate that any of the ERC percentile forecasts displayed on its fire weather dashboard were for the correct area.

3. Liberty's Wind Gust Threshold Should Not Have Been Higher for Topaz Compared to the Rest of Liberty's Service Territory Because Liberty Knew That the Circuit Was Prone Wire Slap Risk Events.

Liberty states that because the "Topaz and Muller 1296 R3 PSPS zones were windier than other PSPS zones under normal weather conditions, Liberty's protocol established slightly higher thresholds for wind gusts."[70] Liberty's consultant, Reax Engineering, determined that Liberty's wind gust threshold for Topaz and Muller 1296 circuits should be higher than the "baseline values established earlier due to consistently higher wind speeds in these areas."[71] However, Section C shows in detail Liberty's history of wire slap related outages and how approximately 27% of those outages occurred at wind speeds lower than 40 mph and 44% of those outages occurred at wind speeds lower than 45 mph. Liberty's and REAX's decision to increase the wind speed

[68] Attachment 8, question 1, attachment "2019-08-20 Liberty Utilities de-energization thresholds_Redacted.pdf" at 24.

[69] Attachment 18, Liberty response to data request CalAdvocates-LIB-A2506017-035, question 2, November 13, 2025 (Attachment 18).

[70] Ex. Liberty-03 at 39.

[71] Attachment 8, question 1, attachment "2019-08-20 Liberty Utilities de-energization thresholds_Redacted.pdf" at 28.

threshold for de-energization had the functional effect of reducing the likelihood of a PSPS event, which if timely implemented would mitigate the risk of wildfire ignition on a circuit that has a history of wire slap risk events.

4. Fosberg Fire Weather Index Should Have Been Given Higher Priority When Assessing Wildfire Risk.

Absent an actual Red Flag Warning declared by the National Weather Service (NWS), the Fosberg Fire Weather Index would be an appropriate proxy that Liberty could have used for its own localized assessment of Topaz zone.[72] Table 5 shows a comparison of the conditions of an NWS Red Flag Warning with the conditions of a Fosberg Fire Weather value above 50. A Fosberg Fire Weather Index value above 50 "is a minimum threshold for critical fire weather conditions."[73]

While the Fosberg Fire Weather Index "is a commonly-used measure of fire risk that takes into account short-term variations in temperature, relative humidity, and wind speed," it does not "take into account fuel type, topography, or fuel moisture."[74] Because Fosberg Fire Weather Index did not take into account fuels, Liberty had to account for fuels using its Energy Release Component, which was discussed above.

[72] Attachment 18, question 15a.

[73] Attachment 8, question 1, attachment "2019-08-20 Liberty Utilities de-energization thresholds_Redacted.pdf" at 9-10.

[74] Ex. Liberty-03 at 38.

Table 5:
For a Fosberg Fire Weather Index above 50 compared to NWS Red Flag Warning.[75]

Condition	Fosberg Fire Weather Index above 50[76]	NWS Red Flag Warning[77]
Temperature	Above 60 degrees F	N/A
Wind gusts	Greater than or equal to 28.6 mph[78]	Greater than or equal to 30 mph
Relative humidity	Less than 20%	Less than or equal to 15%
Fuel moisture	N/A	Critical fuel moisture levels for 3 hours or greater

Liberty's weather stations could record Fosberg Fire Weather Index if that weather station had "sensors for rain gauge, soil moisture, and fuel moisture."[79] As explained in Chapter CA-04, Section II.D., Liberty had to retrofit ten of its weather stations with fuel moisture sensors. Of the three weather stations that Liberty had installed on the Topaz circuit, only one "was equipped with these sensors" and was able to record Fosberg Fire Weather Index data.[80]

As will be seen in Section II.E. below, Figure 7, Liberty's fire weather dashboard FFWI forecast made at 6:00 am on November 17, 2020 predicted a high of approximately 42 for the afternoon of November 17, 2020, which would have been well below the

[75] Ex. Liberty-03 at 38-39.

[76] Attachment 8, question 1, attachment "2019-08-20 Liberty Utilities de-energization thresholds_Redacted.pdf" at 9-10.

[77] Attachment 18, question 15a.

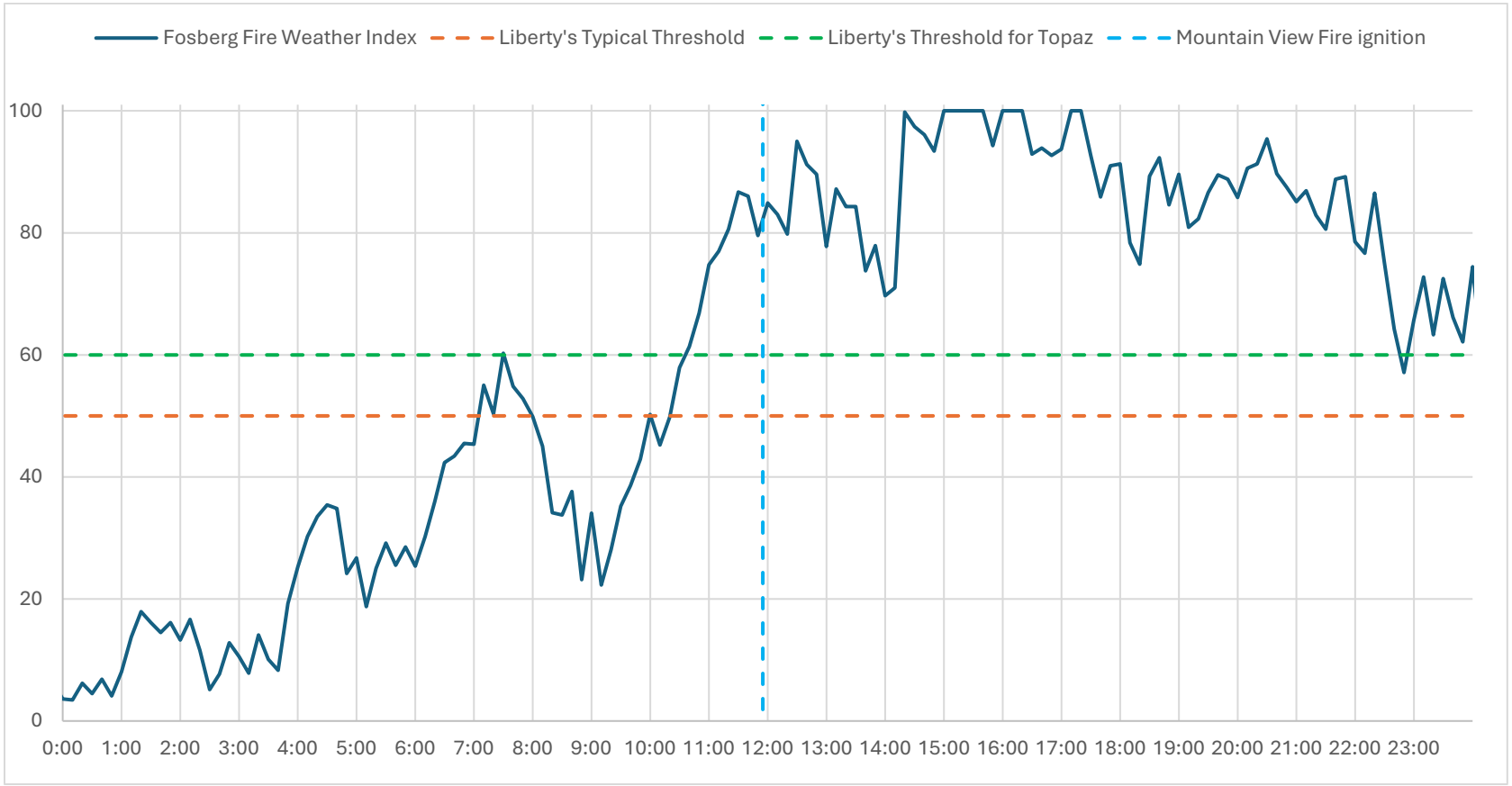
[78] Attachment 8, question 1, attachment "2019-08-20 Liberty Utilities de-energization thresholds_Redacted.pdf" at 8. Using Liberty's fire weather expert's approximation, a sustained wind speed of 20 mph can be multiplied by 1.43 to convert it to a wind gust speed of 28.6 mph.

[79] Attachment 18, question 16a.

[80] Attachment 18, question 16a. Only LIB-3130 could record FFWI, LIB-3105 and LIB-3106 could not because the sensors were retrofit onto these weather stations in 2021.

threshold of 60 for Topaz. Figure 5 below shows that the real-time calculation for Fosberg Fire Weather Index hit Liberty's threshold for Topaz at 7:30 am and then again exceeded this threshold at 10:40 am and stayed above this value through the time of the Mountain View Fire ignition.

Figure 5:
Liberty's Fosberg Fire Weather Index as calculated by its LIB-26 weather station on November 17, 2020.[81]



[81] Attachment 6. For LIB26.

Reax Engineering's analysis of the Topaz PSPS zone stated that "[a]pproximately 500 hourly records were identified [between 1999 and 2018] wherein wind gust and FFWI thresholds were exceeded between June and October."[82] This would imply the Topaz zone had a history of risky weather conditions (high winds and high potential for fire weather). Instead, Reax Engineering interpreted this to mean that the data "quality from this station is questionable."[83]

Liberty had available the real-time FFWI[84] that could proxy RFW conditions at the local level,[85] but instead Liberty relied on regional weather forecasts[86] and positioned FFWI as third in its decision tree, thus making it a lower priority in its decision-making process.

E. Liberty's PSPS Decision Criteria Were Newly Developed, But Its Documentation and Implementation Within Liberty's Fire Weather Dashboard Was Confusing and Incorrectly Calibrated for the Topaz Zone.

Liberty assigned PSPS de-energization decision criteria to its circuits, as discussed in Section II.D.i above, but stated that its fire weather dashboard "provides notification when conditions are forecast to exceed 80%, 90%, and 100% of the screening criteria in each PSPS zone."[87] However, these thresholds were not accurately displayed on Liberty's fire weather dashboard forecasts in the days leading up to the Mountain View fire ignition. Table 6 shows Liberty's three de-energization criteria thresholds for its Topaz zone's expected values (at 80% or 90% 100%) compared to Liberty's fire weather dashboard, which demonstrates that:

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[82] Attachment 8, question 1, attachment "2019-08-20 Liberty Utilities de-energization thresholds_Redacted.pdf" at 24.

[83] Attachment 8, question 1, attachment "2019-08-20 Liberty Utilities de-energization thresholds_Redacted.pdf" at 24.

[84] Liberty's weather station LIB26 provided this data, as shown in Figure 5.

[85] See Table 5 for comparison of NWS Red Flag conditions to FFWI of at least 50.

[86] Ex. Liberty-03-E at 40E. "The NWS issued a high wind warning for the area but did not issue a Red Flag Warning."

[87] Attachment 8, question 1, attachment "2019-08-20 Liberty Utilities de-energization thresholds_Redacted.pdf" at 37.

- The ERC percentile forecasts showed no indications for meeting 80% or 90% or 100% of the threshold;
- The wind gust threshold was 11.1% higher than the expected values; and
- The FFWI threshold was 16.7% higher than the expected values.

The threshold, as represented in the graphs, was simply incorrectly displayed.

Table 6:
Liberty's PSPS De-Energization Decision criteria for Topaz 1261 and Muller 1296.

	Energy Release Component (ERC) Threshold[88]	Wind Gust Threshold (mph)[89]	Difference between threshold and dashboard	Fosberg Fire Weather Index (FFWI)[90]	Difference between threshold and dashboard
100% of Liberty's Thresholds[91]	92 percentile	45 mph	11.1% increase	60	16.7% increase
Dashboard 100%	None	Approximately 50 mph		Approximately 70	
90% of Liberty's Thresholds[92]	82.8 percentile	40.5 mph	11.1% increase	54	16.7% increase
Dashboard 90%	None	Approximately 45 mph		Approximately 63	
80% of Liberty's Thresholds[93]	73.6 percentile	36 mph	11.1% increase	48	16.7% increase
Dashboard 80%	None	Approximately 40 mph		Approximately 56	

[88] Attachment 15, question 8c, attachment "FPI Forecasts.pdf" at PDF p.1-2. Dashboard gives no indication of 80%, 90%, or 100% of threshold.

[89] Attachment 15, question 8c, attachment "FPI Forecasts.pdf" at PDF p.12. Dashboard 100%, Dashboard 90%, and Dashboard 80% approximated from forecast plot for the Topaz zone.

[90] Attachment 15, question 8c, attachment "FPI Forecasts.pdf" at PDF p.12. Dashboard 100%, Dashboard 90%, and Dashboard 80% approximated from forecast plot for the Topaz zone.

[91] Ex. Liberty-03 at 38-39.

[92] Calculated by multiplying respective threshold by 0.9.

[93] Calculated by multiplying respective threshold by 0.8.

Figure 6 shows an example of Liberty's fire weather dashboard displaying ERC values, and demonstrates that there were no visual indications to show whether the ERC met 80% or 90% or 100% of the threshold, it simply displayed a value.

Figure 6:
Excerpts from Liberty's fire weather dashboard forecast for Energy Release Component Forecasts for November 17, 2020 at 6:00 am.[94]

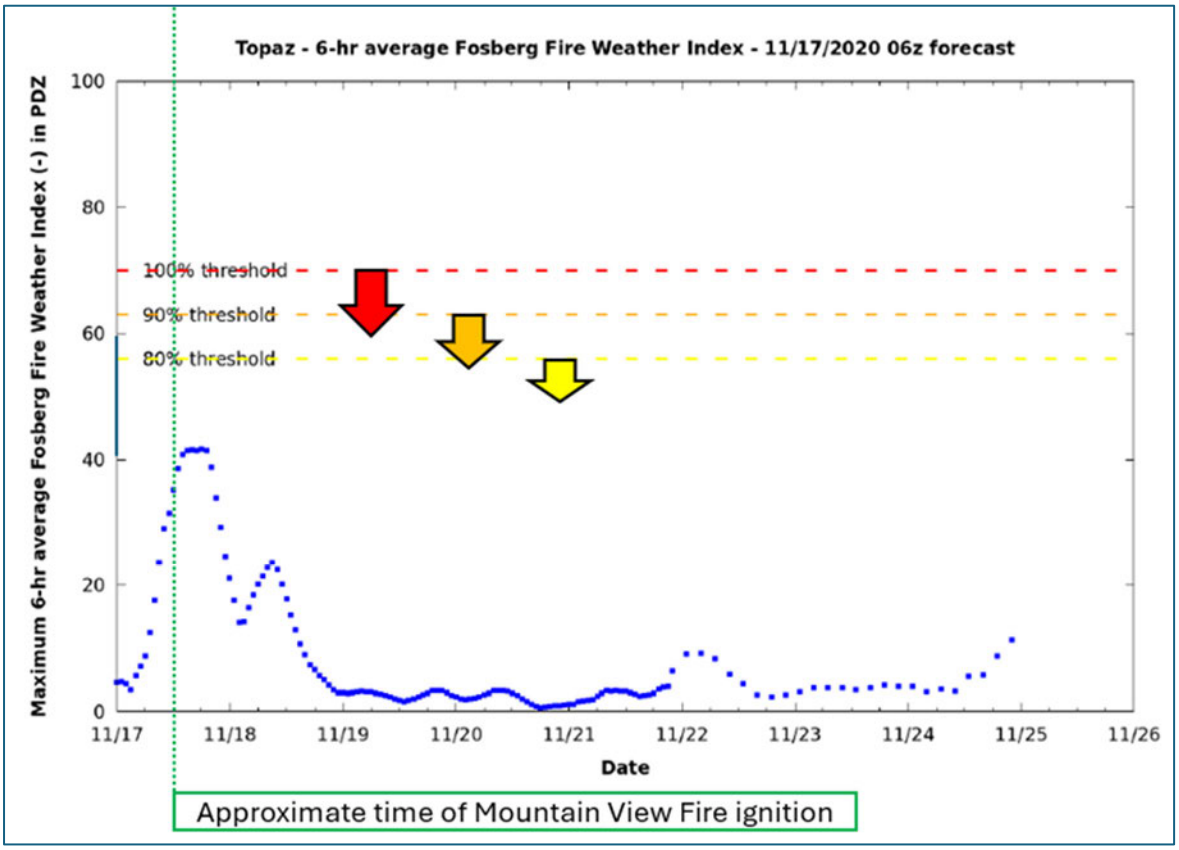
Liberty Utilities Energy Release Component Forecast for 11/17/20 - 11/23/20

Zone	Nov 17	Nov 18	Nov 19	Nov 20	Nov 21	Nov 22	Nov 23
111 Line	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Portola	56.9	55.7	44.6	39.3	41.2	42.2	45.3
Mul1296 r3	49.2	51.7	36.8	30.1	30.2	32.5	34.7
Topaz	60.5	61.3	44.8	38.0	38.4	39.2	45.1

As can be seen in Figure 7, which shows the FFWI forecast for the Topaz zone on November 17, 2020 at 6:00 am, this incorrect representation of the threshold values makes interpretation of the graphs difficult. The dotted blue curve represents the forecasted FFWI values while the dashed red, orange, and yellow lines are what Liberty's fire weather dashboard actually displayed. The red, orange, and yellow arrows were added to this image to show where the dashed lines respectively should approximately have been. The dotted green line was added to this image to show when the Mountain View Fire would approximately occur.

[94] Attachment 15, question 8c, attachment "FPI Forecasts.pdf" at PDF p. 501-502. This is only an excerpt of the top of the table and the Muller and Topaz zone rows, not the entire table for that day.

Figure 7:
Liberty's fire weather dashboard forecast for Topaz zone's FFWI at 6:00am on November 17, 2020.[95]



As can be seen in Figure 8, which shows the wind gust forecast for the Topaz zone on November 17, 2020 at 6:00 am, this incorrect representation of the threshold values makes interpretation of the graphs difficult. The dotted blue curve represents the forecasted wind gust values while the dashed red, orange, and yellow lines are what Liberty's fire weather dashboard actually displayed. The red, orange, and yellow arrows were added to this image to show where the dashed lines respectively should have been. The dotted green line was added to this image to show when the Mountain View Fire would approximately occur.

[95] Attachment 15, question 8c, attachment "FPI Forecasts.pdf" at PDF p. 512.

Figure 8:
Liberty's fire weather dashboard forecast for Topaz zone's wind gust at 6:00am on November 17, 2020.[96]

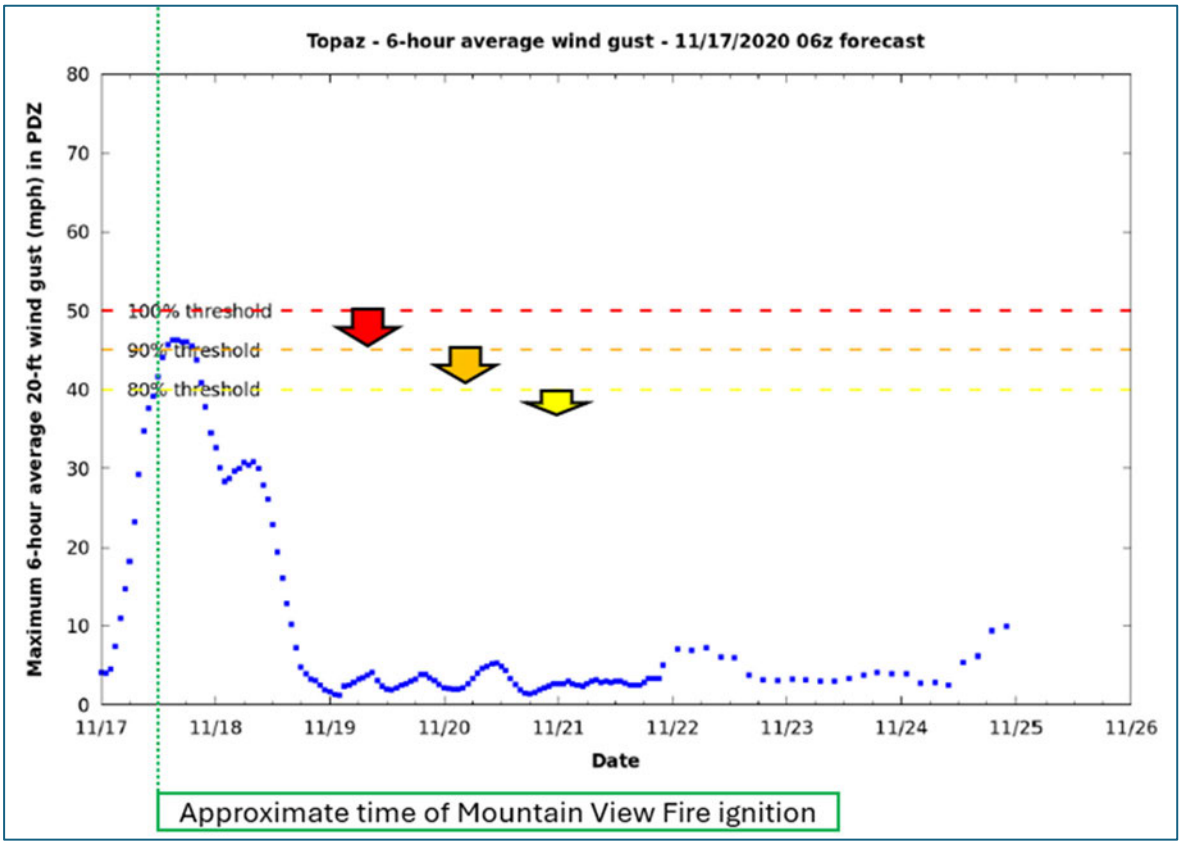


Table 7 shows Liberty's three de-energization criteria thresholds for its other typical zones' expected values (at 80% or 90% 100%) compared to Liberty's fire weather dashboard, which demonstrates that:

- The ERC percentile forecasts showed no indications for meeting 80% or 90% or 100% of the threshold;
- The wind gust thresholds were correct; and
- The FFWI thresholds were correct.

[96] Attachment 15, question 8c, attachment "FPI Forecasts.pdf" at PDF p. 512.

Table 7:
Liberty's PSPS De-Energization Decision criteria for all other circuits[97] [98]

	Energy Release Component (ERC) Threshold[99]	Wind Gust Threshold (mph)[100]	Fosberg Fire Weather Index (FFWI)[101]
100% of Liberty's Thresholds[102]	92 percentile	40 mph	50
Dashboard 100%	None	Approximately 40 mph	Approximately 50
90% of Liberty's Thresholds[103]	82.8 percentile	36 mph	45
Dashboard 90%	None	Approximately 36 mph	Approximately 45
80% of Liberty's Thresholds[104]	73.6 percentile	32 mph	40
Dashboard 80%	None	Approximately 32 mph	Approximately 40

As can be seen in Figure 9, which shows the FFWI forecast for a typical zone (in this case the Portola zone) on November 17, 2020 at 6:00 am, this is clear to read. The dotted blue curve represents the forecasted wind gust values while the dashed red, orange, and yellow lines are what Liberty's fire weather dashboard displayed. These lines appear to be correctly placed.

[97] Ex. Liberty-03 at 38-39.

[98] Attachment 12, question 7b. Liberty states that these thresholds were applicable to "all PSPS zones other than the Topaz 1261 and Muller 1296 circuit zones."

[99] Attachment 15, question 8c, attachment "FPI Forecasts.pdf" at PDF p. 1. Dashboard gives no indication of 80%, 90%, or 100% of threshold.

[100] Attachment 15, question 8c, attachment "FPI Forecasts.pdf" at PDF p. 3. Dashboard 100%, Dashboard 90%, and Dashboard 80% approximated from forecast plot for the Portola zone.

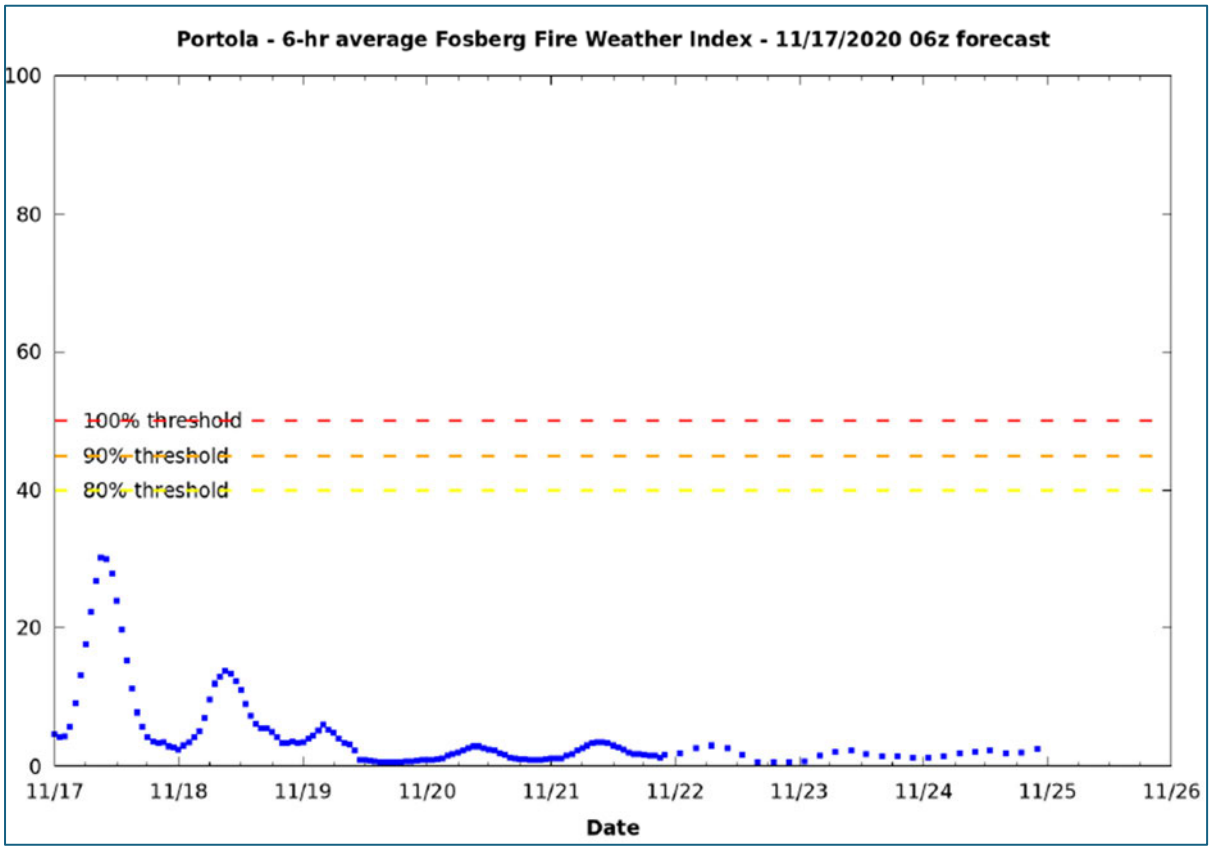
[101] Attachment 15, question 8c, attachment "FPI Forecasts.pdf" at PDF p. 3. Dashboard 100%, Dashboard 90%, and Dashboard 80% approximated from forecast plot for the Portola zone.

[102] Ex. Liberty-03 at 38-39.

[103] Calculated by multiplying respective threshold by 0.9.

[104] Calculated by multiplying respective threshold by 0.8.

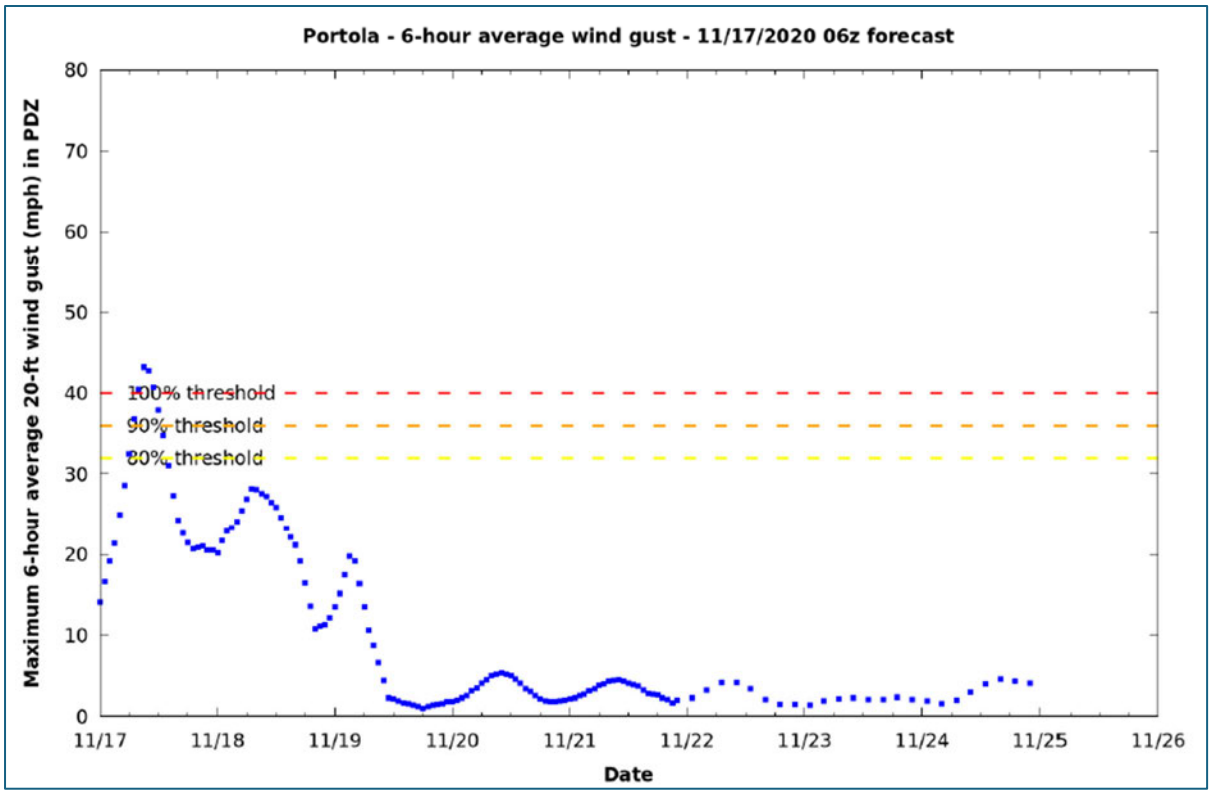
Figure 9:
Liberty's fire weather dashboard forecast for Portola zone's FFWI at 6:00am on November 17, 2020.[105]



As can be seen in Figure 10, which shows the wind gust forecast for a typical zone (in this case the Portola zone) on November 17, 2020 at 6:00 am, this is clear to read. The dotted blue curve represents the forecasted wind gust values while the dashed red, orange, and yellow lines are what Liberty's fire weather dashboard displayed. These lines appear to be correctly placed.

[105] Attachment 15, question 8c, attachment "FPI Forecasts.pdf" at PDF p. 503.

Figure 10:
Liberty's fire weather dashboard forecast for Portola zone's wind gust at 6:00am on November 17, 2020.[106]



Tables 6 and 7 above demonstrate that Liberty's fire weather dashboard failed to correctly indicate that the forecasts were reaching 80%, 90% or 100% of the threshold for Topaz and Muller zones. For all circuits, the dashboard did not provide any indication of the ERC percentile forecast reaching 80%, 90%, or 100% of the threshold of the 92nd percentile.

Liberty stated that "forecasts would typically have to simultaneously exceed 80%, 90%, or 100% of de-energization thresholds for all three PSPS criteria [ERC percentile, FFWI, and wind gust] for Liberty to consider activating its [Incident Management Team (IMT)] for a PSPS event."[107] However, had anyone at Liberty reviewed the fire weather

[106] Attachment 15, question 8c, attachment "FPI Forecasts.pdf" at PDF p. 503.

[107] Attachment 18, question 7b.

dashboard in the days leading up to the Mountain View fire ignition, they would have seen inaccurate 80%, 90%, and 100% thresholds for the Topaz zone.

While Liberty provided its fire weather dashboard forecasts from November 11, 2020 through November 17, 2020, each of these forecasts (provided daily at 12:00 am, 6:00 am, 12:00 pm, and 6:00 pm) showed the same incorrect indications (for 80% and 90% and 100% of thresholds) for FFWI and wind gust forecasts and lack of indication for ERC percentile forecasts.[108] Also, Liberty did not verify how long its dashboard was showing incorrect threshold demarcations since it "does not have access to fire weather dashboard data" from January 1, 2020 through November 10, 2020.[109] Similarly, Liberty would not have been able to verify the accuracy of its previous forecasts since it did not keep them.

F. Liberty's System Operators in New Hampshire Had No Ability to Implement a PSPS or Address Fire Weather Concerns Without Liberty's Operations in California.

Liberty states that its "System Control Center monitored the company's electric system and communicated with field personnel to address system alerts or other unanticipated outages or issues."[110] From 2011 until 2018, "Liberty's system was operated by NV Energy's system control center."[111] In 2018, Liberty "began the process of transitioning system control to Liberty Utilities' System Control Center in New Hampshire"[112] and finished transitioning by February 14, 2019.[113] Liberty states that, on November 17, 2020, "a System Operator was actively monitoring Liberty's electric

[108] Attachment 15, question 8c, attachment "FPI Forecasts.pdf" at PDF pp. 12, 32, 52, 72, 92, 112, 132, 152, 192, 212, 232, 252, 272, 292, 312, 332, 352, 372, 392, 412, 432, 452, 472, 492, 512, 532, and 552.

[109] Attachment 18, question 1e.

[110] Ex. Liberty-03-E at 2E.

[111] Ex. Liberty-03-E at 32E.

[112] Ex. Liberty-03-E at 32E.

[113] Attachment 16, question 4c.

operations, and communicated directly with field personnel about scheduled work and outages on the Topaz 1261 Circuit."[114]

However, Liberty states that its New Hampshire based "System Operators were not directly responsible for monitoring FPI or PSPS criteria."[115] Liberty further states that its "operations team in California was responsible for monitoring Liberty's fire weather dashboard and communicating PSPS and other operational decisions to Liberty Utilities' System Control Center in New Hampshire as needed."[116] Liberty's California-based operations team "included the Senior Manager of Wildfire Prevention, the Vice President of Operations, the Director of Operations, and the Emergency Management Manager" and was "responsible for monitoring Liberty's fire weather dashboard and communicating with Liberty's System Control Center and other personnel regarding potential PSPS events."[117]

When asked how many staff members from its California-based operations team were actively monitoring Liberty's fire weather dashboard and communicating to Liberty's Control Center, Liberty responded that it "does not have specific records tracking when and how many operations personnel accessed the data at any given time."[118] Liberty notes that its "fire weather dashboard and real-time weather data were accessible on publicly available websites and available to all employees at all times,"[119] however it did not provide any documentation showing how employees used its dashboard or otherwise observed real-time weather data.[120]

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[114] Ex. Liberty-03-E at 34E.

[115] Attachment 16, question 4e-f, October 22, 2025.

[116] Attachment 16, question 4e-f, October 22, 2025.

[117] Attachment 19, Liberty response to data request CalAdvocates-LIB-A2506017-029, question 9a, October 29, 2025 (Attachment 19).

[118] Attachment 19, question 9b.

[119] Attachment 19, question 9b.

[120] Attachment 19, question 5.

In sum, Liberty's System Control Center had no responsibility for monitoring weather conditions and forecasts.[121] Liberty's California operations team was responsible[122] but lacked any meaningful protocols to ensure that staff members utilized real-time weather data.[123]

Liberty's "forecasts did not meet Liberty's approved PSPS criteria or approach thresholds sufficient to initiate a potential PSPS event" and so even though the actual conditions on the morning of the ignition met the criteria for a red flag warning,[124] as demonstrated in Chapter CA-04, Section II.B, "Liberty did not initiate a PSPS event."[125]

G. Liberty's Function in California and its System Control Center in New Hampshire Were Inherently Siloed Such That the Control Center Did Not Perform a Proper Risk Assessment.

While Liberty states that it "had fully transitioned to Liberty Utilities' System Control in New Hampshire by February 14, 2019,"[126] the transition failed to ensure functionality and record retention prior to February 14, 2019, as discussed below.

There were a number of suspected wire slap outages that Liberty could not provide data for. When asked for data of all the outages that occurred on Liberty's Topaz 1261 circuit between 2010 and 2020, Liberty could not provide these records because its "records for the requested data date back to approximately 2016."[127] Liberty's 2016 Electric System Reliability Report states that the Topaz 1261 circuit "experienced twelve

[121] Attachment 16, question 4e-f.

[122] Attachment 16, question 4e-f.

[123] Attachment 19, question 5.

[124] Attachment 16, question 2, attachment "LU Fire Prevention Plan 10-9-2020.pdf" at 1. Liberty states it used "a combination of Red Flag Warning (RFW) notifications, interpretations from the Reax predictive tool, and information gathered from Liberty CalPeco weather stations [to] help determine avenues and countermeasures to mitigate the threat of utility-caused fire ignitions."

[125] Attachment 12, question 1a.

[126] Attachment 16, question 4c.

[127] Attachment 11, question 12, attachment "CalAdvocates-LIB-A2506017-001-Q12.xlsx." Liberty began operating this utility system in approximately 2011.

outages that were suspected wire slapping events" in 2016.[128] However, Liberty found "seven outages in 2016 that were identified as suspected wire slapping events" and that, because "Liberty's system was operated by NV Energy's system control center," Liberty "has not identified [the five] additional outages in 2016."[129] Additionally, "Liberty does not have Incident IDs for nine outages in 2015 identified as suspected wire-slapping events in its historical outage data because Liberty's [Outage Management System (OMS)] records date back to approximately 2016."[130] Furthermore, "For an incident described as number "814" in its 2017 historical outage data, Liberty has not located a corresponding OMS record."[131]

In total, there are at least 15 suspected wire slap outages that Liberty has no record of. This information, which could have been analyzed to provide vital information determining the appropriate wind gust threshold for the Topaz 1261 circuit, could not be analyzed because Liberty did not incorporate records from NV Energy. [redacted]

While a PSPS is a last resort, there must be steps that come before it, such as awareness of inherent risks in a system (circuit with known wire slap risk events),[133] especially in a place with ubiquitous dead fuels (visually[134] and quantitatively[135]).

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[128] Attachment 20, Liberty's 2016 Electric System Reliability Report, July 15, 2017 (Attachment 20) at 22.

[129] Attachment 8, question 4a.

[130] Attachment 8, question 4b.

[131] Attachment 8, question 4c.

[132] [redacted]

[133] See Section C above for discussion of Topaz 1261 circuit's wire slap related outages.

[134] Ex. Liberty-03 at 42.

[135] See Chapter CA-04, Section II.C on situational awareness.

Liberty's Control Center and its System Operators, if given the whole picture of a risky circuit, should have been the last line of defense.

On the morning of November 17, 2020, at 9:48am, Liberty's Topaz 1261 circuit experienced a suspected wire slapping event,[136] which caused an outage[137] that occurred at a wind gust speed of approximately 45.5 mph.[138] Notably, this wind gust speed approached Liberty's wind gust forecast (approximately 45 mph, which was incorrectly shown as below the 100% threshold)[139] (see Figure 11 below) and surpassed Liberty's PSPS criteria predefined wind gust threshold (45 mph).[140] This should have alarmed anyone monitoring the system. Indeed, this warranted a risk assessment.

[136] Attachment 8, question 4b.

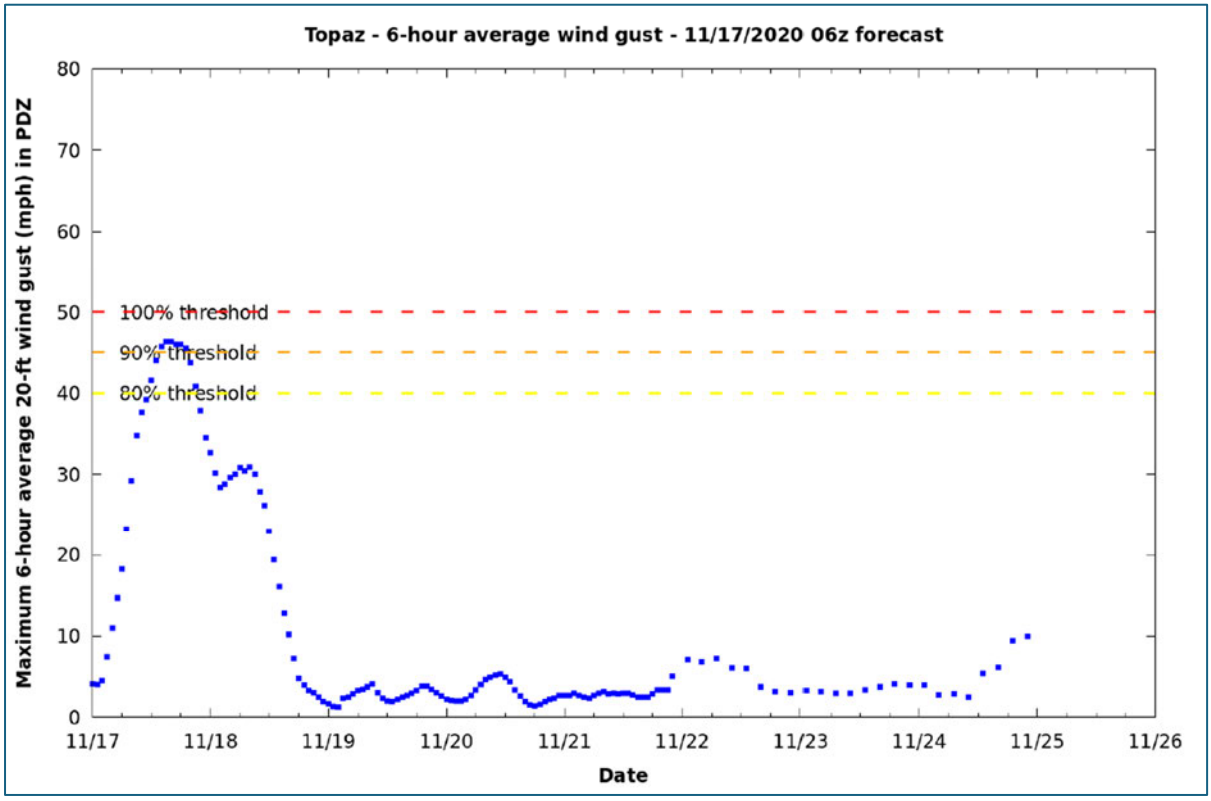
[137] Attachment 11, question 12, attachment "CalAdvocates-LIB-A2506017-001-Q12.xlsx." Incident ID 27841.

[138] See Table 3 in Section II.C.

[139] Attachment 15, question 8c, attachment "FPI Forecasts.pdf" at PDF p. 512.

[140] Ex. Liberty-03 at 39.

Figure 11:
Topaz zone forecast from Liberty's fire weather dashboard made at 6:00 am on November 17, 2020.[141]



Liberty states that "Depending on the circumstances surrounding the outage (e.g., whether there was a non-reclose assurance at the time), the System Operator would investigate the cause prior to re-energizing, such as by contacting field personnel nearby, looking for evidence of a fault, or conducting a Risk Assessment that would evaluate factors such as weather conditions, time of day and location, SCADA information, potential bird, animal, or public contact with facilities, and others. The System Operator could re-energize a circuit only after a Risk Assessment and any necessary line patrols, inspections, and remediation of safety hazards were completed."[142]

[141] Attachment 15, question 8c, attachment "FPI Forecasts.pdf" at PDF p. 512.

[142] Ex. Liberty-03-E at 33E-34E.

[redacted]

Thus, "Following a patrol of the affected line, at 10:41 a.m. the 1261 R2 Recloser was closed, re-energizing the line and restoring power to the affected customers" and later "the hotline tag mode was disabled and the 1261 R2 Recloser was returned to normal mode."[146]

H. Brief History of Liberty's Proactive De-energization Programs.

Liberty had a limited history of PSPS events prior to the Mountain View ignition. Liberty initiated a proactive de-energization event in 2018, and experienced a near de-energization event in 2019, before developing formal PSPS decision making protocols. Liberty developed the PSPS protocol in use at the time of the Mountain View ignition in August 2019.[147]

[143] [redacted]

[144] [redacted]

[145] [redacted]

[146] Ex. Liberty-03-E at 43E.

[147] Attachment 12, question 2.

1. Liberty Initiated a Proactive De-energization on November 21, 2018 Prior to the Development of its Formalized PSPS Protocols.

On Wednesday, November 21, 2018 at 12:00 pm, Liberty proactively de-energized three circuits (111 Line circuit, 625 Line circuit, 3400 circuit laterals)[148] until 3:00 pm.[149] Liberty states that it "did not have a formal PSPS protocol at the time, but proactively initiated a power shutoff based on weather conditions."[150] Liberty had "received weather reports from the [NWS] indicating a storm was approaching with high winds, and the conditions warranted a Fire Weather Watch."[151] Liberty stated that "NWS reports indicated wind speeds would reach 50-60 mph, with ridges experiencing 70-90 mph gusts, humidity in the 25-35% range, and temperatures around 50°."[152] Liberty explained that the "area had not received any appreciable amount of precipitation in several weeks, and the vegetation was extremely dry."[153]

Further, Liberty stated that its "3400 circuit laterals reside in rugged terrain that experienced a similar scenario in October 2016, which resulted in the Emerald fire." In determining to proactively de-energize its 3400 circuit laterals, Liberty had an awareness that "[i]n both the Emerald fire and the circumstances leading into this PSPS event, weather forecasts called for **significant wind preceding the rain and snow**."[154] Thus, Liberty previously showed awareness that a fire could occur, and had occurred, during a window of significant wind right before a period of wet weather.

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[148] These circuits are located near Lake Tahoe.

[149] Attachment 19, question 12b, attachment "Liberty Utilities (CalPeco Electric) LLC - Report to SED on 11-21-18 De-Energization Event" at 1.

[150] Ex. Liberty-03 at 37.

[151] Attachment 19, question 12b, attachment "Liberty Utilities (CalPeco Electric) LLC - Report to SED on 11-21-18 De-Energization Event" at 1.

[152] Attachment 19, question 12b, attachment "Liberty Utilities (CalPeco Electric) LLC - Report to SED on 11-21-18 De-Energization Event" at 1.

[153] Attachment 19, question 12b, attachment "Liberty Utilities (CalPeco Electric) LLC - Report to SED on 11-21-18 De-Energization Event" at 1.

[154] Attachment 19, question 12b, attachment "Liberty Utilities (CalPeco Electric) LLC - Report to SED on 11-21-18 De-Energization Event" at 1.

Notably, Liberty could not confirm whether it used real-time weather station data in its 2018 decision to de-energize, instead referring to the report and stating that "Liberty had not yet installed its own weather stations."[155] Liberty refers to its November 21, 2018 De-Energization report for "discussion of Liberty's decision-making based on forecast and actual conditions."[156] However, the report excludes what observed or actual weather data was used in Liberty's decision-making and refers only to the "NWS weather briefing report that includes relevant details to Liberty CalPeco's PSPS decision."[157] The NWS weather briefing report appears to include only forecasted weather data for the week ahead.[158]

2. Liberty Had a Potential PSPS De-energization Event in September 2019.

On Tuesday, September 10, 2019, Liberty's "Tahoe Fire Weather Monitoring tool provided a forecast alert predicting high wind gusts, warming temperatures, and dry conditions beginning Sunday morning, September 15, 2019."[159] Liberty noted "although the tool did not currently predict PSPS criteria to be exceeded," Liberty would monitor conditions at the direction of its fire weather consultant.[160]

On Wednesday, September 11, 2019, Liberty's "PSPS criteria was still not predicted to be exceeded."[161]

On Thursday, September 12, 2019, Liberty's consultant forecasted "sustained elevated wind speeds, high wind gusts, hot temperatures, and very dry conditions for

[155] Attachment 19, question 12b.

[156] Attachment 19, question 12b.

[157] Attachment 19, question 12b, attachment "Liberty Utilities (CalPeco Electric) LLC - Report to SED on 11-21-18 De-Energization Event" at 5.

[158] Attachment 19, question 12b, attachment "Liberty Utilities (CalPeco Electric) LLC - Report to SED on 11-21-18 De-Energization Event," Attachment 1 "National Weather Service Briefing."

[159] Attachment 19, question 11b, attachment "PSPS Post Event Report for September 10 to September 14, 2019" at PDF p. 5.

[160] Attachment 19, question 11b, attachment "PSPS Post Event Report for September 10 to September 14, 2019" at PDF p. 5.

[161] Attachment 19, question 11b, attachment "PSPS Post Event Report for September 10 to September 14, 2019" at PDF p. 5.

Sunday" and the NWS "had issued a Fire Weather Watch for the same time period."[162] At 5:30 pm, Liberty began notifying public safety partners, critical facilities, and medical baseline customers of the potential for a de-energization event.[163]

On Friday, September 13, 2019, Liberty's forecast for Sunday, September 15, 2019, "predicted lower wind speeds than previously forecast" and Liberty confirmed "through the sampling of live fuels that live fuel moisture and the energy release component were below PSPS criteria."[164] Thus, Liberty decided to cancel the event.

The 2019 event provided some good learning opportunities for Liberty. Liberty provided some lessons that it learned from this event in its Revised 2020 WMP such as:

- Although the "[b]right red line threshold is clear," there seemed to be a need for "potential action items" as thresholds were approached.[165]
- There also seemed to be a need for "[m]ore patrols if there is a forecast threshold exceed[ed]."[166]
- Liberty found that, regarding its System Control Center, there were "indications [that] staffing could be a challenge"[167] to coordinate with its "local emergency operations personnel."[168]

Between that event in September 2019 until the Mountain View Fire ignition on November 17, 2020, it remains unclear how much of these lessons learned were really addressed. As demonstrated in Section II.D., there were no threshold indications for ERC percentile forecasts on Liberty's fire weather dashboard, and the thresholds were

[162] Attachment 19, question 11b, attachment "PSPS Post Event Report for September 10 to September 14, 2019" at PDF p. 5.

[163] Attachment 19, question 11b, attachment "PSPS Post Event Report for September 10 to September 14, 2019" at PDF p. 5.

[164] Attachment 19, question 11b, attachment "PSPS Post Event Report for September 10 to September 14, 2019" at PDF p. 5.

[165] Attachment 23, Liberty's Revised 2020 Wildfire Mitigation Plan, February 28, 2020 (Attachment 23) at 34.

[166] Attachment 23 at 34.

[167] Attachment 23 at 34.

[168] Attachment 16, question 5b.

incorrectly indicated for wind gust forecast and FFWI forecast on the Topaz circuit at the time of the Mountain View Fire ignition. Additionally, Liberty "does not have access to fire weather dashboard data from" September 7, 2019 through September 14, 2019, which would cover its September 2019 potential PSPS event, "given the passage of time."[169]

III. CONCLUSION

Liberty did not appropriately address the inherent ignition risks of a circuit with a history of outages due to wire slap. Liberty's staff were siloed such that the people who needed to know were not aware of the inherent risks. Liberty failed to examine (or keep) actual outage data of its Topaz circuit in determining its PSPS de-energization thresholds. Liberty unquestioningly accepted the thresholds determined by its consultant without considering more experienced utilities or its own known risk factors. Liberty unquestioningly used a forecasting tool that was not properly calibrated. Liberty did not use the real-time information that was available to it from its own weather stations.

[169] Attachment 19, question 11a.

APPENDIX A

QUALIFICATIONS OF WITNESS

PREPARED TESTIMONY AND QUALIFICATIONS
OF
AMANDA ASADI

My name is Amanda Asadi. My business address is 505 Van Ness Avenue, San Francisco, California. I am employed by the Public Advocates Office as a Utilities Engineer in the Safety Branch.

I received a Bachelor of Science degree in Mechanical Engineering from the University of Hawai'i at Manoa. I have worked at the California Public Utilities Commission since 2021, initially as a Utilities Engineer in the Safety and Enforcement Division. While in the Safety and Enforcement Division, I investigated electric utility incidents, resolved customer complaints, and performed audits of electric and communication utilities, and generation facilities.

I joined Cal Advocates in May 2022 as a Utilities Engineer. While at Cal Advocates, I have primarily worked on analysis and commentary on the Investor-Owned Utilities' Public Safety Power Shutoff (PSPS) programs. I have also provided comments to the Office of Energy Infrastructure Safety regarding the electric utilities' Wildfire Mitigation Plans (WMPs). In particular, I have reviewed and analyzed the WMPs of SCE, SDG&E, and PG&E. In 2024 to 2025, I participated in SCE's cost-recovery application related to the Woolsey Fire (A.24-10-002). I prepared and sponsored testimony regarding situational awareness and preventive measures for wildfire risk related to the Woolsey Fire ignition.

Prior to joining Cal Advocates I worked as a mechanical engineer for the Pearl Harbor Naval Shipyard & IMF from 2014 to 2018, and as a multidiscipline engineer for Boeing from 2018 to 2020.

This concludes my statement of qualifications.