Docket	:	A.25-06-017
Exhibit Number	:	CA-04
Commissioner	:	M. Baker
Admin Law Judge	:	R. Haga
Witness	:	A. Asadi

PUBLIC ADVOCATES OFFICE
CALIFORNIA PUBLIC UTILITIES COMMISSION

TESTIMONY ON SITUATIONAL AWARENESS FOR MOUNTAIN VIEW FIRE COST-RECOVERY APPLICATION

Reasonableness of Operations Prior to Ignitions

San Francisco, California
December 12, 2025

590548776

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SITUATIONAL AWARNESS

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 situational awareness.

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

II. SITUATIONAL AWARENESS

This section of testimony presents information about the quality and use of Liberty's situational awareness tools including the use of weather and fuel data. Such measures and data allow a utility to be aware of potential conditions that may increase the risk of a catastrophic wildfire, allowing the utility to make informed operational decisions. As discussed below, prior to the Mountain View Fire ignition, Liberty deployed weather stations and methods to measure fuel load and condition but did not implement them effectively.

A. Liberty Had 29 Weather Stations but Did Not Use Them for Real-Time Observations.

Liberty installed 29 weather stations from May 1, 2019 through November 2, 2020,[2] including three on the Topaz 1261 circuit.[3] Liberty stated that the purpose of these weather stations was to provide "helped Liberty plan for operations in anticipation of and during extreme weather events, validate its PSPS predictive tool, and provided

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

[2] Attachment 1, Liberty response to data request CalAdvocates-LIB-A2506017-014, question 1, September 29, 2025, attachment "CalAdvocates-LIB-A2506017-006-Q3_Amended.xlsx," (Attachment 1).

[3] Attachment 1, question 1, attachment "CalAdvocates-LIB-A2506017-006-Q3_Amended.xlsx."

valuable information to inform de-energization decisions in the event of a PSPS activation."[4] Liberty stated that these weather stations each collected the following data: Dew Point, Fuel Moisture,[5] Precipitation, Relative Humidity, Soil Moisture, Soil Temperature, Temperature, Wind Direction, Wind Gust, and Wind Speed in 10-minute intervals.[6]

At the time of the Mountain View ignition, Liberty had deployed approximately one weather station for every 23.9 miles of overhead distribution lines.[7, 8] For comparison, by 2020 San Diego Gas and Electric Company (SDG&E) had deployed approximately one weather station for every 34 miles of overhead distribution lines.[9] By 2020, Southern California Edison Company (SCE) had deployed approximately one weather station per 81 miles of overhead distribution lines.[10]

However, while Liberty's weather station penetration was comparable or better than peer utilities, it does not appear that Liberty staff were using weather station data to inform operational decisions at the time of the Mountain View ignition. Liberty stated that "[r]eal-time weather station data reported by Liberty's weather stations are available on Western Weather Group's publicly available website…This dashboard was generally

[4] Ex. Liberty-03-E at 35.

[5] While Liberty claims that all of its weather stations collected fuel moisture data, this does not appear to have been the case at the time of the Mountain View ignition. See section C below.

[6] Attachment 1, question 1, attachment "CalAdvocates-LIB-A2506017-006-Q3_Amended.xlsx."

[7] Attachment 2, Liberty response to data request CalAdvocates-LIB-A2506017-035, question 12a, November 13, 2025 (Attachment 2). "As of January 2021, Liberty had approximately 694.01 miles of [primary] overhead distribution lines."

[8] Ex. Liberty-03-E at 35. "Liberty installed a total of 29 weather stations in 2019 and 2020 prior to the Mountain View Fire."

[9] Attachment 3, SDG&E's 2020 Wildfire Mitigation Plan, February 7, 2020, Appendix A, Tables 13 and 14 (Attachment 3). SDG&E had 6,488 circuit miles of overhead distribution lines and had installed 482 weather stations.

[10] Attachment 4, SCE's 2020 Wildfire Mitigation Plan, February 7, 2020, Appendix A, Tables 13 and 14 (Attachment 4). SCE had 39,236 circuit miles of overhead distribution lines and had installed 191 weather stations.

available to Liberty employees."[11] However, Liberty does not explicitly state when Liberty employees observed its real-time weather station data or provide documentation showing how employees used real-time weather station data.[12]

Despite the availability of weather data, Liberty was unaware of the increasingly hazardous weather conditions developing throughout the day of November 17, 2020, because, as Liberty stated, "[b]ased on weather forecasts, Liberty was not aware of any heightened risk of wildfires on November 17, 2020."[13] Liberty had real time weather data available to inform operational decisions at the time of the ignition, but instead relied entirely on a forecast.

Liberty stated that it "used weather station data including temperature, humidity, wind speed, and fuel moisture readings as inputs to its FPI tool, which classified fire threat levels and supported situational awareness."[14] This implies that weather station data would directly feed into its forecasting tool. Liberty stated that "[i]n the event of a PSPS activation, live weather station observations, along with data from field observers, would guide the ultimate decision to de-energize."[15] Liberty does not state that it used live weather station data absent activation for a PSPS event.

Additionally, Liberty claimed that it "used its weather station data to monitor weather conditions across its service territory, to validate and improve the accuracy of forecast models."[16] However, Liberty did not demonstrate that its California staff was actively monitoring Liberty's weather station data in real-time at the time of the ignition; Liberty instead stated that its "real-time weather data were accessible on publicly available websites and available to all employees at all times" and that "Liberty does not

[11] Attachment 5, Liberty response to data request CalAdvocates-LIB-A2506017-029, question 5c, October 29, 2025 (Attachment 5).

[12] Attachment 5, question 5b and 5c.

[13] Attachment 6, Liberty response to data request CalAdvocates-LIB-A2506017-008, question 4, September 5, 2025 (Attachment 6).

[14] Attachment 6, question 7b.

[15] Attachment 6, question 7a.

[16] Attachment 5, question 5a.

have specific records tracking when and how many operations personnel accessed the data at any given time."[17] Moreover, Liberty did not provide documentation showing how employees should use its dashboard to observe its real-time weather station data.[18] Liberty's Fire Prevention Plan states that if "Reax forecasts for these zones that the ERC, wind, and FFWI will [simultaneously] come within 80%, 90%, or 100% of the thresholds for de-energization, Liberty CalPeco will enact a PSPS upon or just before reaching 100%."[19, 20] Finally, when asked to provide documentation showing that Liberty's fire science and risk modeling consultant validated its forecasting tool by comparing forecasted conditions with real-time weather station observations on an ongoing basis, Liberty provided only the consultant's "proposed scope of work for the development of a Fire Potential Index."[21]

B. On the Morning of November 17, 2020, Liberty's Weather Stations Showed Conditions Similar to the National Weather Service's Red Flag Warnings.

Liberty states that the "National Weather Service (NWS) issued a High Wind Warning for November 17, 2020 but did not issue a Red Flag Warning and its briefings in the days leading up to November 17, 2020 did not indicate any heightened wildfire threat."[22] Although Liberty had built out its own weather station network, Liberty still heavily relied on the NWS. However, if Liberty had observed its own weather stations, the warning signs of heightened wildfire risk were evident in the hours leading up to the ignition.

Liberty stated that for the area outside of the Tahoe Basin, "the NWS's Reno office issued Red Flag Warnings when it determined that the following conditions were

[17] Attachment 5, question 9b.

[18] Attachment 5, question 5c.

[19] Attachment 7, Liberty amended response to data request CalAdvocates-LIB-A2506017-017, question 2, October 22, 2025, attachment "LU Fire Prevention Plan 10-9-2020.pdf," (Attachment 7).

[20] Attachment 2, question 7b.

[21] Attachment 5, questions 2 and 3.

[22] Attachment 6, question 4.

forecasted…greater than or equal to 30 mph wind gusts, relative humidity less than or equal to 15%, and critical fuel moisture levels for 3 hours or greater."[23] Table 1 shows the conditions that Liberty's own two nearest weather stations (LIB26 and LIB06) and the nearest public weather station (Walker RAWS) reported on the day of the ignition. As Table 1 shows, all three weather stations show Red Flag Warning conditions occurred prior to the time of the ignition. Figure 1 shows the location of these weather stations with respect to the Topaz circuit, as can be seen in Figure 1 the nearest of the weather stations was approximately 1 mile from the site of the ignition on Topaz 1261.

[23] Attachment 2, question 15a.

Figure 1:
Topaz circuit and nearby weather stations on November 17, 2020.[24]

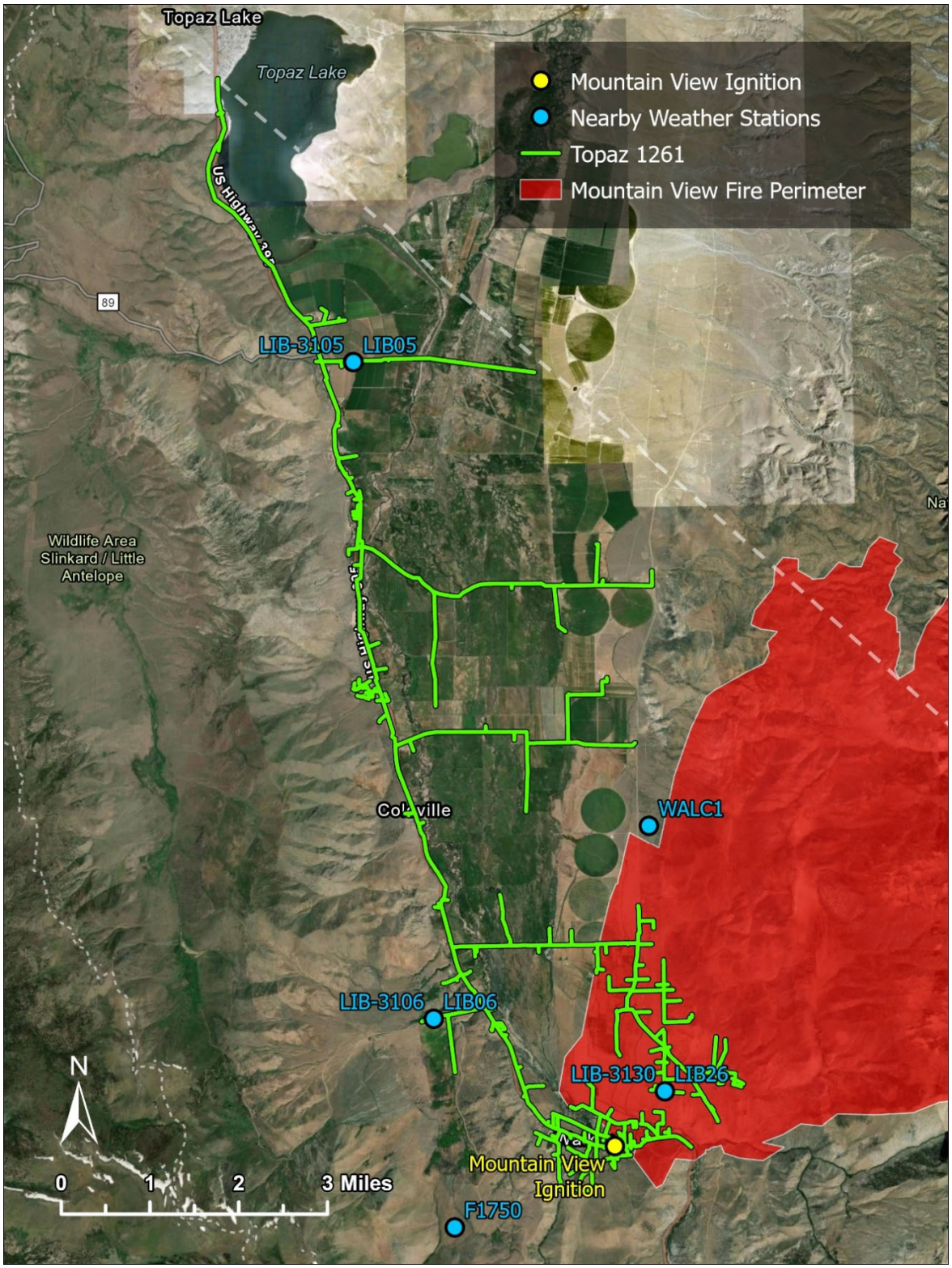


Table 1:
Liberty's weather stations on the Topaz 1261 circuit.[25]

Condition	NWS Red Flag Warning limit[26]	Liberty's LIB26 (LIB-3130) weather station reported	Liberty's LIB06 (LIB-3106) weather station reported	Walker RAWS (WALC1) weather station reported
Wind gusts	Greater than or equal to 30 mph	Greater than 30 mph from 9:30 am through the time of ignition	Greater than 30 mph from 7:00 am through time of ignition	Greater than 30 mph from 3:48 am through the time of ignition
Relative Humidity	Less than or equal to 15%	Dropped below 15% from 10:40 am through the time of ignition	Dropped below 15% from 8:00am through the time of ignition	Dropped to 15% and below from 4:48 am through the time of ignition
Fuel moisture level	Critical levels for 3 hours or greater[27]	Dead fuel moisture (10-hr) range 5.64%-6.77% through the time of ignition	N/A[28]	Dead fuel moisture (10-hr) range 5.7%-6.6% through the time of ignition

[24] Attachment 1, question 1, attachment "CalAdvocates-LIB-A2506017-006-Q3_Amended.xlsx." Provides locations of Liberty's weather stations.

[25] Attachment 1, question 1, attachment "CalAdvocates-LIB-A2506017-006-Q3_Amended.xlsx."

[26] Attachment 2, question 15a. The "NWS's Reno office issued Red Flag Warnings when it determined that the following conditions were forecasted…[for the] Outside Basin: greater than or equal to 30 mph wind gusts, relative humidity less than or equal to 15%, and critical fuel moisture levels for 3 hours or greater."

[27] Attachment 8, Liberty does not define "critical levels" for fuel moisture. The Oklahoma Mesonet, Oklahoma Climatological Survey, available at: https://content.mesonet.org/mesonet/okfire/OK-FIRE_Basics_for_Fire_Danger.pdf (Attachment 8). For 10-hour dead fuel moisture, a range of **6-15%** could lead to "[i]ncreasing fire danger as dead fuel moisture values decrease," a range of **5-6%** could indicate "containment [of fire] becomes difficult; quick ignition; spot fires increase" and a range less than 5% could indicate "[e]xtreme fire behavior; spot fires frequent."

[28] Attachment 5, question 8, attachment "CalAdvocates-LIB-A2506017-029-Q8.xlsx." LIB-3106 did not report fuel moisture data until March 10, 2021.

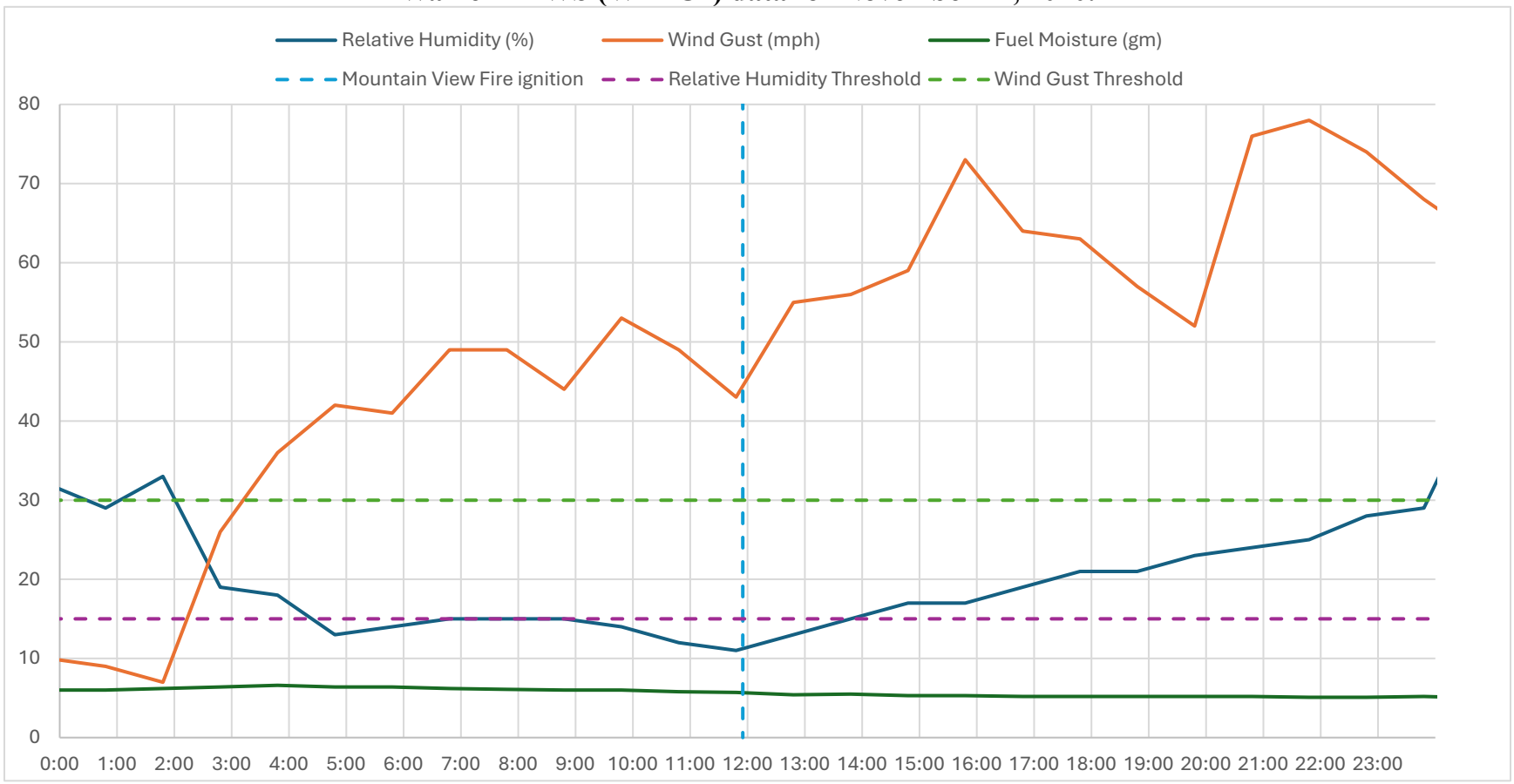
When asked if Liberty used its weather station data to observe and confirm whether its service territory experienced conditions equivalent to NWS's Red Flag Warning, Liberty responded that "Liberty is not aware that it specifically compared weather station data to Red Flag Warning criteria to determine whether Red Flag Warning conditions occurred."[29] When asked when Liberty became aware of the likelihood of hazardous weather conditions (e.g., warm temperatures, high winds, and low humidity combined with dry fuels) occurring on November 17, 2020, Liberty stated that "[b]ased on weather forecasts, Liberty was not aware of any heightened risk of wildfires on November 17, 2020."[30] This shows that Liberty did not use data from its real-time weather station network on the day of the Mountain View Fire ignition and instead relied solely on forecasted information.

Figures 2, 3, and 4 show that on November 17, 2020, Liberty's nearest two weather stations assigned to the Topaz circuit (LIB06 and LIB26) along with the publicly available Walker RAWS (WALC1) reported conditions that exceeded NWS Reno's conditions for a Red Flag Warning in the hours leading up to the Mountain View Fire ignition.

[29] Attachment 2, question 15b.

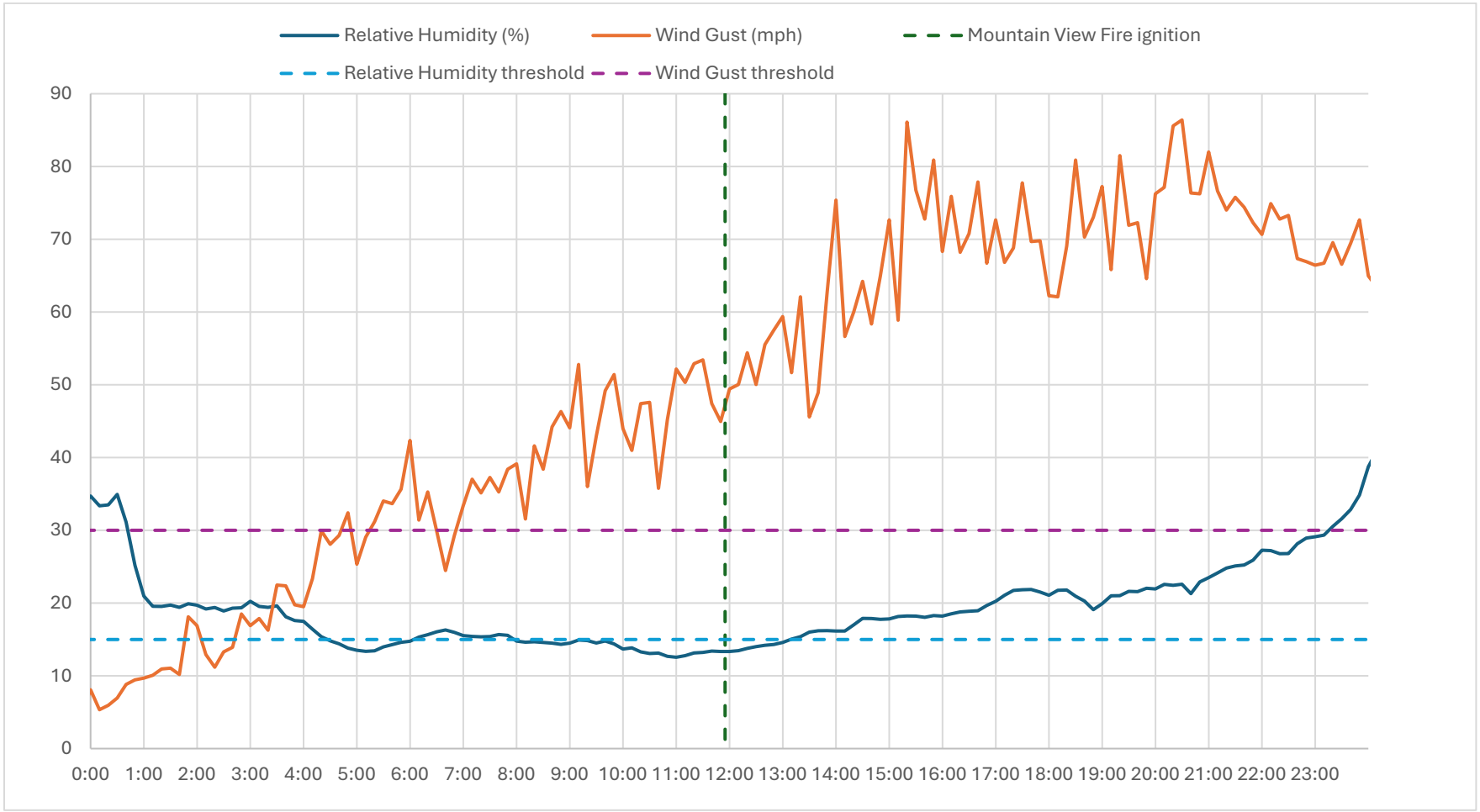
[30] Attachment 6, question 4.

Figure 2:
Walker RAWS (WALC1) data for November 17, 2020.[31]



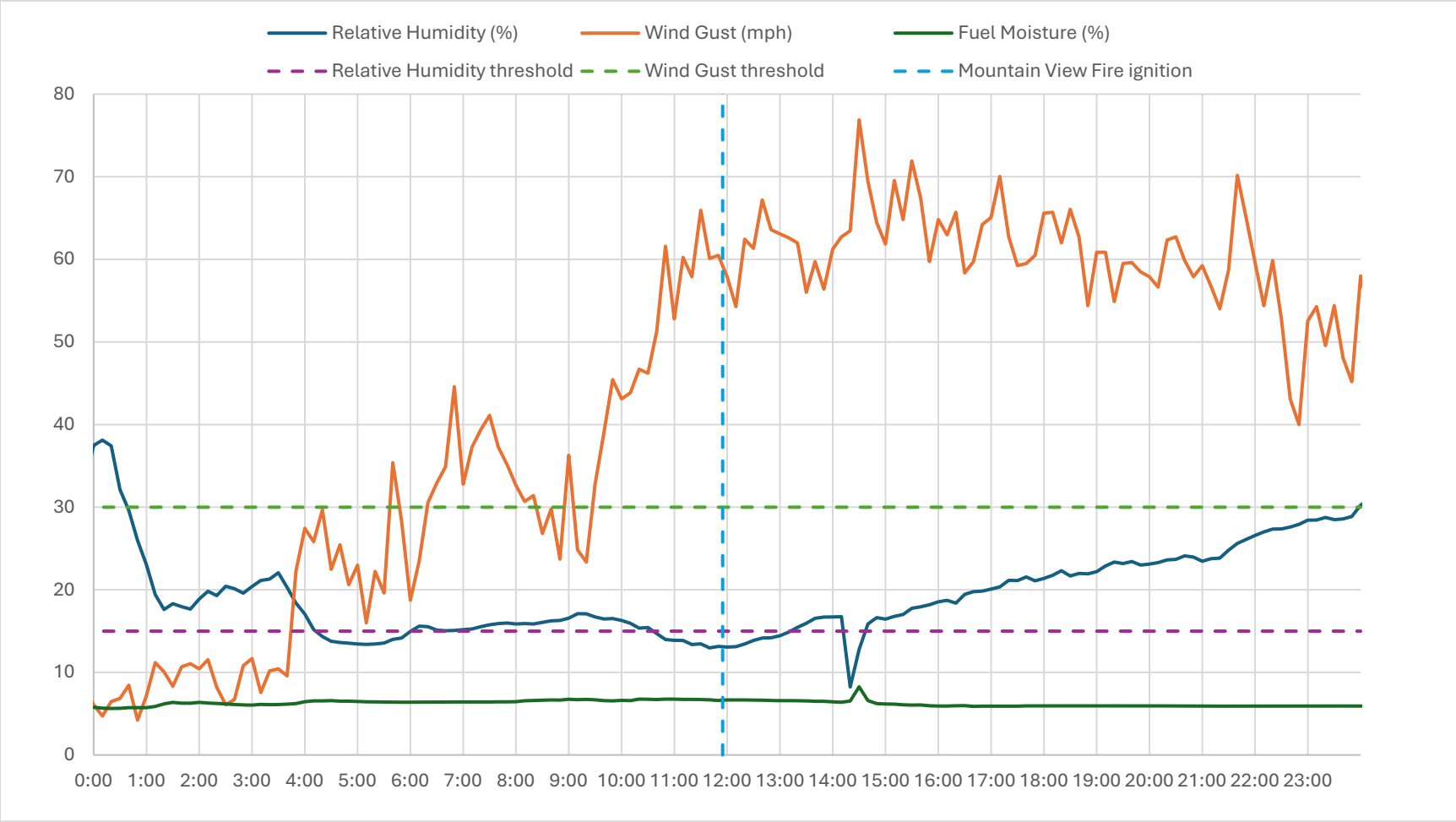
[31] Attachment 9, University of Utah, MesoWest at: https://mesowest.utah.edu/ (Attachment 9). For WALC1.

Figure 3:
LIB06 (LIB-3106) weather station data for November 17, 2020.[32]



[32] Attachment 9. For LIB06.

Figure 4:
LIB26 (LIB-3130) weather station data for November 17, 2020.[33]



[33] Attachment 9. For LIB26.

Liberty should have been aware of the worsening conditions on the day of the ignition. Real-time weather data was available, but Liberty did not utilize the data available to it, instead Liberty relied entirely on forecasts. As a result, Liberty was unaware of the actual weather conditions, even though the information was available at the time of the Mountain View ignition.

C. Liberty Measured Dead and Live Fuel Moisture in the Months Prior to the Mountain View Fire Ignition.

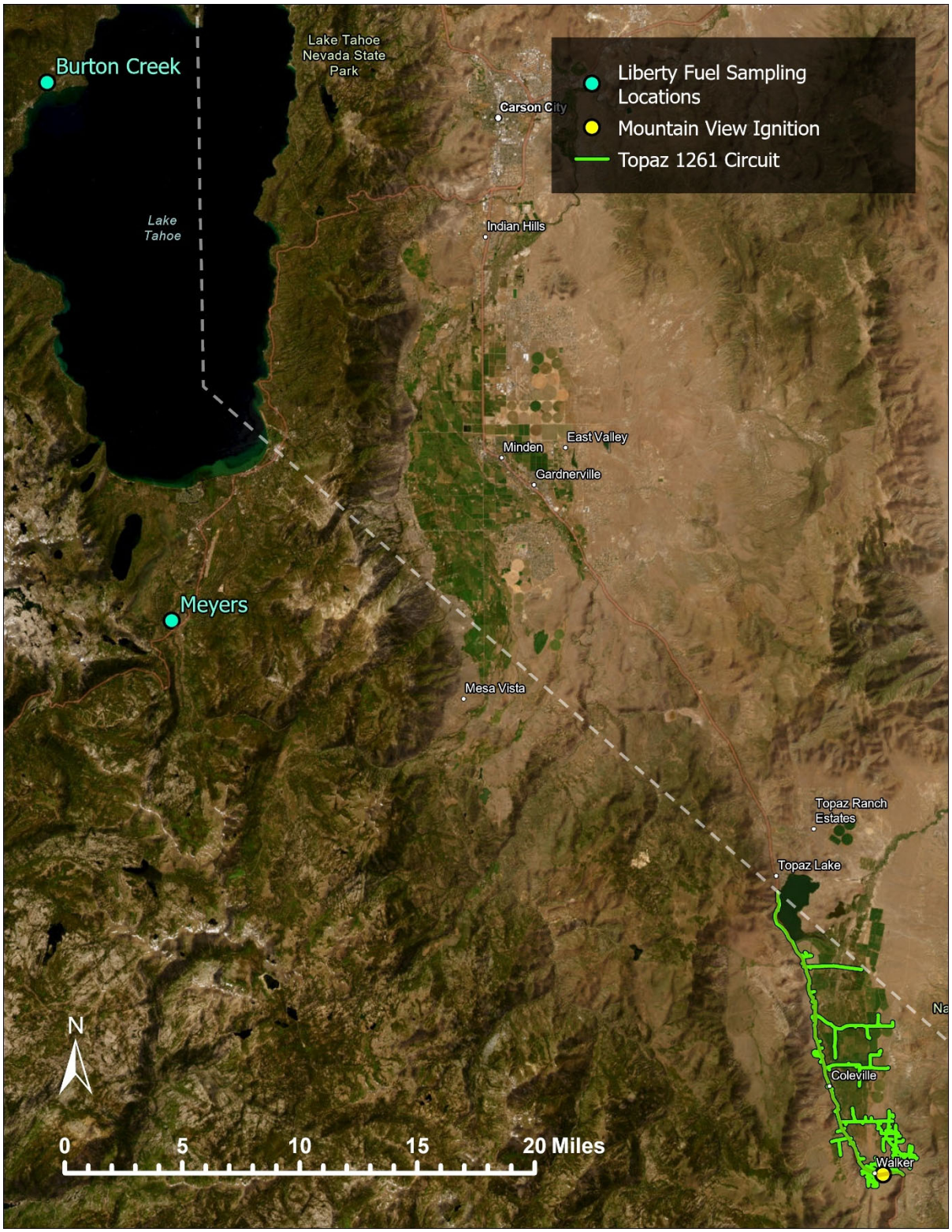
Liberty states that it "performed field fuel moisture sampling on 1,000-hour dead fuels and live woody fuels."[34] Liberty states that while "weather station sensors measured 10-hour dead fuels, which reflect changes in short term weather conditions, field fuel moisture sampling targeted 1,000-hour dead fuels and live woody fuels" which provided "information regarding longer-term fuel moisture trends and conditions of live fuels."[35] Liberty's nearest fuel sampling site, Meyers, was about 38.3 miles away from the Mountain View Fire ignition in Meyers, California, see Figure 5.[36]

[34] Attachment 1, question 3(a-d).

[35] Attachment 1, question 3e.

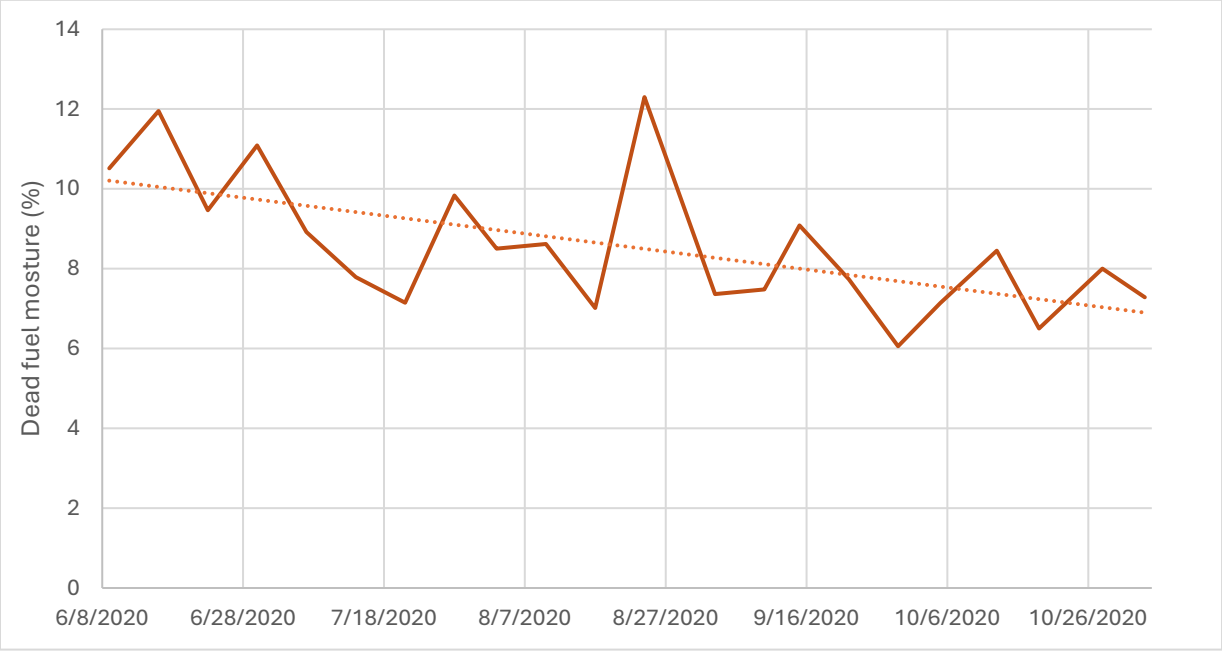
[36] Attachment 1, question 3(a-d). Liberty provides the coordinates for the Meyers fuel sampling site.

Figure 5:
Liberty fuel moisture sampling site (Meyers) nearest to the Topaz 1261 circuit.[37]



The 1,000-hour dead fuels would be fuels "that are 3 inches to 8 inches in diameter, such as dead fallen trees and brush piles" which "do not burn easily, but if they do burn, they will generate extreme heat often causing dangerous fire behavior conditions."[38] Figures 6 and 7 shows that Liberty took multiple samples in Meyers, from June 9, 2020 through November 3, 2020, which showed the definite trend in declining 1,000-hour dead fuel moisture as well as live fuel moisture.

Figure 6:
Liberty fuel moisture sampling of 1,000-hr dead fuels in Meyers.[39]



[37] Attachment 1, question 3(a-d). Liberty's Meyers location was the nearest (38.3 miles away), while Ward Creek and Burton Creek were farther away (approximately 58.2 and 58.5 miles away, respectively) and nearer to Lake Tahoe.

[38] Attachment 10, National Centers for Environmental Information, National Oceanic and Atmospheric Administration, *Dead Fuel Moisture*, available at https://www.ncei.noaa.gov/access/monitoring/dyk/deadfuelmoisture (Attachment 10).

[39] Attachment 2, question 13a, attachment "CalAdvocates-LIB-A2506017-035-Q6.xlsx," sheet "Dead."

Figure 7:
Liberty fuel moisture sampling of live fuels in Meyers.[40]

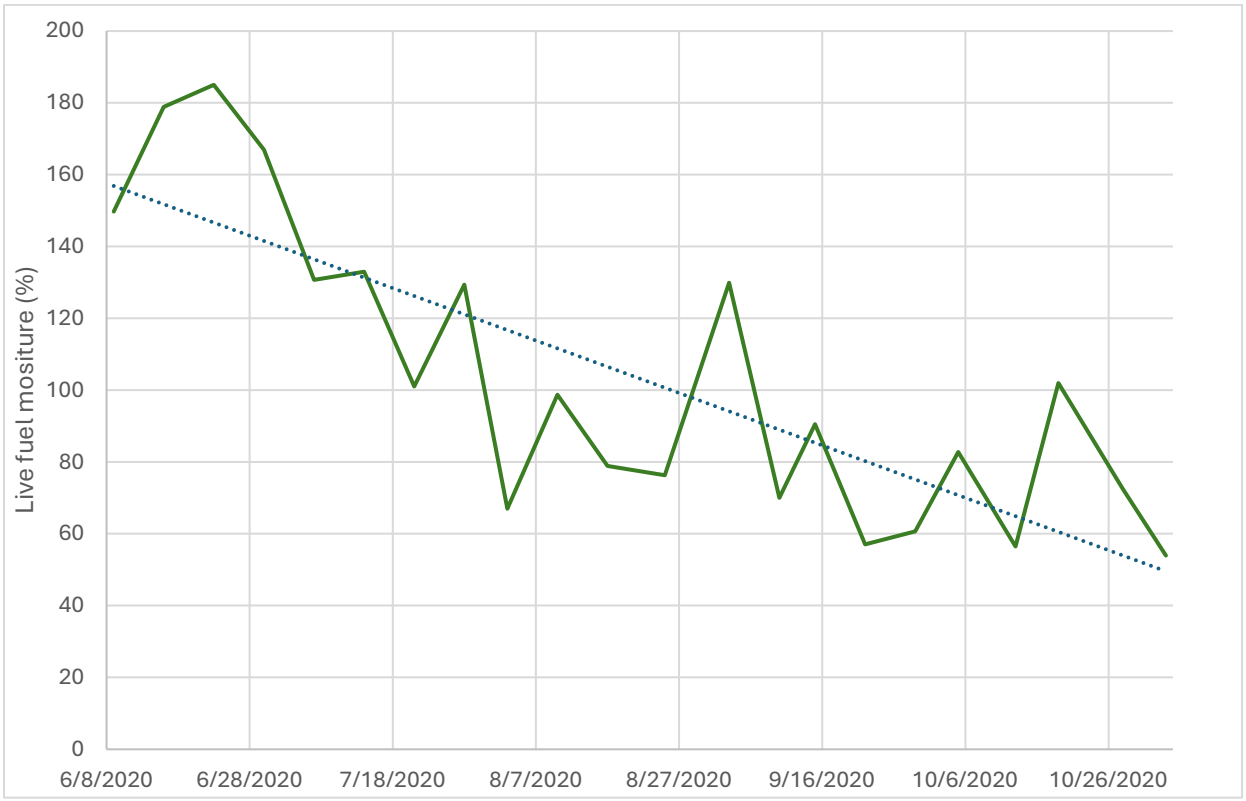


Figure 7 shows Liberty's live fuel moisture readings at its Meyers location where the primary live fuel that it sampled was sagebrush.[41] In its Revised 2020 WMP, Liberty states that "[f]or live fuels, fuel moisture contents of approximately 60% is considered critical for sagebrush."[42] Thus, the last sample that Liberty took at the Meyers location on November 3, 2020 showed it had reached a live fuel moisture level of approximately 54%, which met what Liberty would consider a critical level.[43]

[40] Attachment 2, question 13a, attachment "CalAdvocates-LIB-A2506017-035-Q6.xlsx," sheet "Live."

[41] Attachment 1, question 1.

[42] Attachment 11, Liberty's Revised 2020 Wildfire Mitigation Plan, February 28, 2020 at 31 (Attachment 11).

[43] Attachment 2, question 13a, attachment "CalAdvocates-LIB-A2506017-035-Q6.xlsx," sheet "Live."

Liberty was aware of the growing threat of steadily decreasing fuel moisture in the southern part of its service territory based on the measurements in the Meyers location and that it had reached a critical level about 14 days prior to the Mountain View Fire ignition. However, Liberty failed to continue monitoring these live and 1,000-hour dead fuels after November 3, as evidenced by its sampling abruptly halting on that day. In 2019, Liberty took samples "approximately weekly from mid-July through mid-November" and had planned to sample from "late May / early June and end in late Fall for the upcoming 2020 year, with the understanding the start and end dates are dependent on numerous climatological factors."[44]

D. Liberty Provided Unclear Information on Whether the Weather Stations It Installed in 2019 and 2020 Had Fuel Moisture Sensors.

Liberty's testimony in this proceeding states that it deployed weather stations in 2019 and 2020 to "support its wildfire risk modeling and forecasting efforts and to provide high quality observational data,"[45] As stated above, Liberty had installed 29 weather stations from May 1, 2019 through November 2, 2020.[46] Liberty's testimony states that it installed these weather stations to "monitor and record ambient conditions across Liberty's service area affecting its system, including wind, humidity, **fuel moisture**, precipitation and other relevant information."[47] Liberty further stated that, as of November 17, 2020, each of these 29 weather stations was communicating and collecting the following data: Dew Point, **Fuel Moisture**, Precipitation, Relative Humidity, Soil Moisture, Soil Temperature, Temperature, Wind Direction, Wind Gust, and Wind Speed in 10-minute intervals.[48] In its Revised 2020 Wildfire Mitigation Plan (WMP), Liberty stated that "[i]nstalling weather stations with fuel moisture and

[44] Attachment 11 at 31.

[45] Ex. Liberty-03-E at 35.

[46] Attachment 1, question 1, attachment "CalAdvocates-LIB-A2506017-006-Q3_Amended.xlsx."

[47] Ex. Liberty-03-E at 35.

[48] Attachment 12, Liberty response to data request CalAdvocates-LIB-A2506017-006, question 1, August 21, 2025, attachment "CalAdvocates-LIB-A2506017-006-Q3.xlsx," (Attachment 12).

precipitation sensors allows for more accurate fuel moisture and [Energy Release Component (ERC)] calculations."[49]

However, Liberty failed to disclose the fact that some of the weather stations that it installed in 2019 and 2020 did not originally have fuel moisture sensors. In 2021, Liberty informed the Office of Infrastructure and Energy Safety that it added fuel moisture sensors "to weather stations installed in 2020 and retrofitted to several of the locations installed in 2019."[50] When asked by Cal Advocates, which weather stations Liberty had retrofitted and when this occurred, Liberty admitted that it had retrofitted ten of its weather stations, including two of the three it installed on the Topaz 1261 circuit,[51] but could not provide the date that each station was retrofitted.[52] Liberty only provided "information regarding the earliest fuel moisture readings available in archival data for these stations to provide insight regarding the timing of installation of fuel moisture sensors."[53]

Of these ten weather stations that Liberty needed to retrofit with fuel moisture sensors, Liberty was able to retrofit three of the ten weather stations by August 26, 2020, but the other seven weather stations were not retrofit until 2021.[54] This meant that only about 75% of Liberty's weather stations were collecting fuel moisture data prior to the Mountain View Fire ignition.[55] Table 2 below shows the three Liberty weather stations on the Topaz 1261 circuit and the earliest date that each reported fuel moisture data.

---

[49] Attachment 11 at 44.

[50] Attachment 13, Liberty's 2020 Wildfire Mitigation Plan Annual Report on Compliance, March 31, 2021 at 3 (Attachment 13).

[51] These two weather stations were LIB05 (LIB-3105) and LIB06 (LIB-3106).

[52] Attachment 5, question 8, and attachment "CalAdvocates-LIB-A2506017-029-Q8.xlsx."

[53] Attachment 5, question 8.

[54] Attachment 5, question 8, October 29, 2025, attachment "CalAdvocates-LIB-A2506017-029-Q8.xlsx." Liberty does not know when it retrofit those seven weather stations, but provides the earliest data that fuel moisture data was reported.

[55] Liberty had 29 weather stations but had to retrofit 10 weather stations and retrofitted three of them in 2020. 29-10+3 = 22. 22/29*100=75.9%.

Table 2:
Liberty's weather stations on the Topaz 1261 circuit.[56]

Station ID	Station Name	Installation Date	Earliest Date When Fuel Moisture Data Was Reported[57]
LIB-3105	TPZ1261–Park Ranch	5/20/2019	2/17/2021
LIB-3106	TPZ1261-Walker	5/31/2019	3/10/2021
LIB-3130	TPZ1261-Eastside Lane	10/20/2020	10/21/2020[58]

Table 2 shows that Liberty had only approximately one month of fuel moisture data from one weather station (LIB-3130) on the Topaz 1261 circuit prior to the Mountain View Fire ignition. In its Revised 2020 WMP, Liberty stated that "[a]ll [weather] stations will be installed with fuel moisture and precipitation sensors. The new sensors will allow for automated Energy Release Component (ERC) calculations to be compared with existing fuel moisture sampling."[59] Testimony CA-05, Section II.D.ii., explains how ERC played a critical role in Liberty's determination not to initiate a PSPS event at the time of the Mountain View ignition.

[56] Attachment 1, question 1, attachment "CalAdvocates-LIB-A2506017-006-Q3_Amended.xlsx."

[57] Attachment 5, question 8, attachment "CalAdvocates-LIB-A2506017-029-Q8.xlsx."

[58] Attachment 9. For LIB26.

[59] Attachment 11 at 45.

E. Liberty's Fire Weather Dashboard Showed Several Inconsistencies and Data Deficiencies in the Days Leading Up to the Mountain View Fire Ignition.

Liberty used its fire weather dashboard to "monitor forecasted weather conditions across its service territory"[60] and included "FPI values by zone that was updated daily."[61] Liberty's fire weather dashboard showed a seven-day forecast for the following:

- FPI forecasts for 11 zones,
- Energy Release Component forecasts for 49 zones,
- Forecast plots of six-hour average Fosberg Fire Weather Index for 48 zones; and
- Forecast plots for six-hour average wind gust for 48 zones.[62]

However, Liberty "did not track the frequency with which its personnel checked the dashboard."[63] Yet, Liberty relied on its FPI forecasts to "guide operation and maintenance crew activities"[64] and Liberty's PSPS protocols relied on its Energy Release Component percentile forecasts, wind gust forecasts, and Fosberg Fire Weather Index forecasts.[65] As described below, Liberty's tool was incomplete and relied on missing or incomplete data.

[60] Attachment 6, question 2. Liberty's fire weather dashboard is available at https://tahoefireweather.com/.

[61] Attachment 6, question 8c, attachment "FPI Forecasts.pdf" at PDF pp. 1-20. NOTE: The zone Ward Canyon West is listed twice in the Energy Release Component Forecasts section at PDF p. 1.

[62] Attachment 6, question 8c, attachment "FPI Forecasts.pdf."

[63] Attachment 1, question 2.

[64] Attachment 7, question 2.

[65] Ex. Liberty-03-E at 37-38.

1. Liberty's Fosberg Fire Weather Forecasts, Wind Gust Forecasts, and Energy Release Component Percentile Forecasts Showed Missing Chunks of Data in the Days Leading up to the Mountain View Fire Ignition.

In the days leading up to the Mountain View Fire ignition, there were several instances where the information in the forecasts was missing data or incomplete. Table 3 shows the various forecasts that Liberty made and the types of data that were missing from each forecast and zone.

Table 3:
Liberty's fire weather dashboard forecasts with missing data.[66]

Date and time forecast was made	Date range of forecast with missing data	Zones	Description of missing data	PDF page numbers
November 12, 2020 at 6:00 am	November 15-19, 2020	All	FFWI and Wind gust forecasts have no data points	103-120
November 12, 2020 at 6:00 pm	All	All	FFWI and Wind gust forecasts have no data points	143-160
November 13, 2020 at 12:00 am	All	All	FFWI and Wind gust forecasts have no data points	163-180
November 13, 2020 at 6:00 am	All	All	FFWI and Wind gust forecasts have no data points	183-200
November 13, 2020 at 12:00 pm	All	All	FFWI and Wind gust forecasts have no data points	202-220
November 14, 2020 at 6:00 pm	November 17-21, 2020	All except 12[67]	FFWI and Wind gust forecasts have no data points	302-320
November 15, 2020 at 12:00 am	November 15-21, 2020	Portola and Sierra Brooks	Previous forecast showed ERCs values ranging from 38.0 to 57.0 and 48.0 to 63.0, respectively, then showed all at 0.0	321
November 15, 2020 at 12:00 am	All	All	FFWI and Wind gust forecasts have no data points	322-340
November 15, 2020 at 6:00 am	November 15-21, 2020	Portola and Sierra Brooks	ERCs were still all 0.0	341
November 15, 2020 at 6:00 am	All	All	FFWI and Wind gust forecasts have no data points	341-360

When asked to explain the missing data listed in Table 3, Liberty stated that it "is not aware of any specific systemic reporting issues within its fire weather dashboard during the relevant time period that would explain the data issues referenced."[68] Regarding the FFWI and wind gust forecast plots, Liberty stated that it "is possible that on occasion, there were delays in the reporting or incorporation of certain data, which could cause some data points…to appear incomplete at certain points in time."[69] Figure 8 below shows what the FFWI and wind gust forecast plots looked like when missing data versus Figure 9 when the plots were populated with data. The dotted green line in Figures 8 and 9 represents the approximate time that the Mountain View Fire ignition would occur.

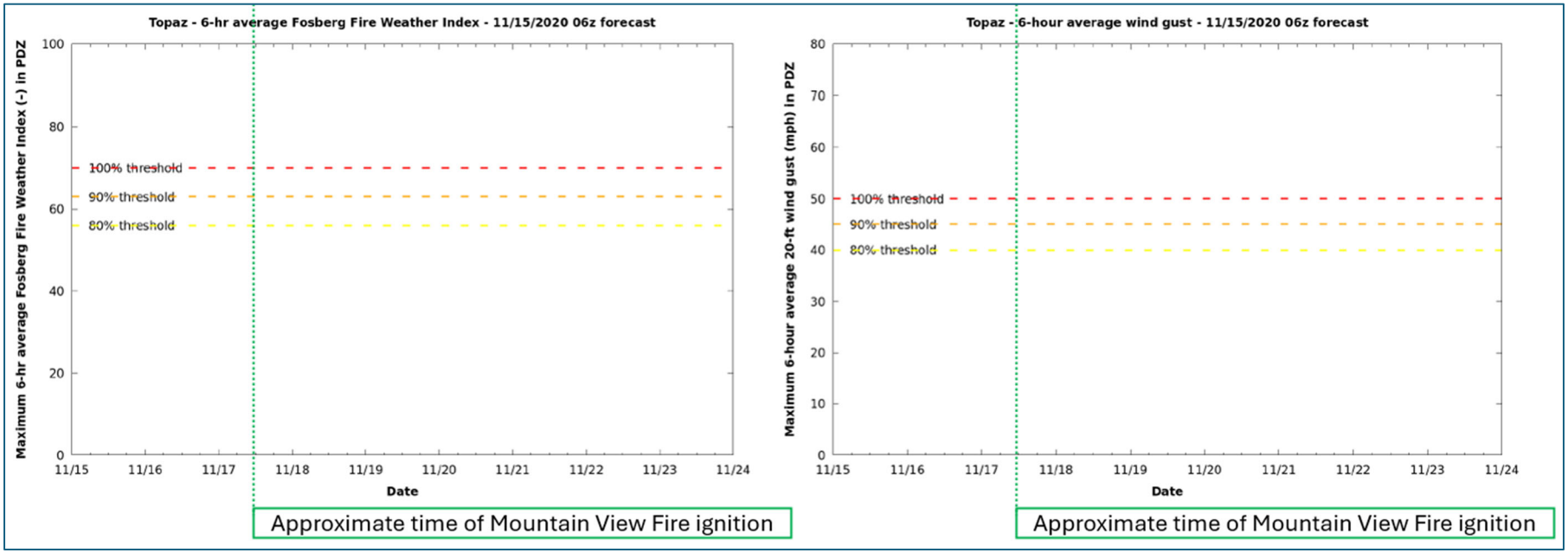
[66] Attachment 6, question 8c, attachment "FPI Forecasts.pdf."

[67] The circuits that were missing data for FFWI from November 19-21, 2020 included: 111 Line, Tah 73-60, Bky 5200. The circuits that were missing data for FFWI and Wind gust from November 19-21, 2020 included Portola, Tah 73-74, Old Country Road. The circuits that were possibly not missing data-Sierra Brooks, Stampede, Angora Ridge and Lily Lake, Cathedral Spring Creek Emerald Bay, Tah 52-68, The Grid.

[68] Attachment 7, question 3a.

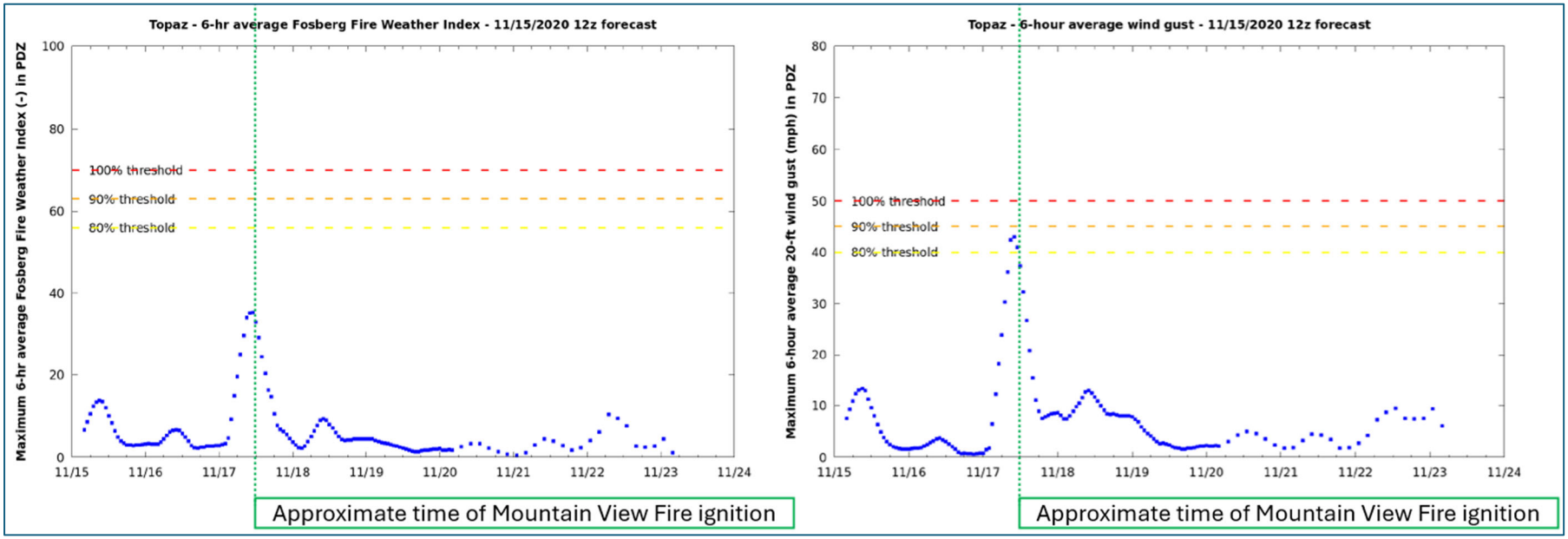
[69] Attachment 7, question 3a.

Figure 8:
Example showing Liberty's fire weather dashboard forecast for November 15, 2020 at 6:00 am for the Topaz zone. The FFWI and wind gust forecasts were missing data for the entire forecasted period.[70]



[70] Attachment 6, question 8c, attachment "FPI Forecasts.pdf" at PDF p. 352.

Figure 9:
Example showing Liberty's fire weather dashboard forecast for November 15, 2020 at 12:00 pm for the Topaz zone. The FFWI and wind gust forecasts had data.[71]



[71] Attachment 6, question 8c, attachment "FPI Forecasts.pdf" at PDF p. 352.

2. The Topaz Zone's Energy Release Component Percentile Forecasts Behaved Erratically in the Days Leading Up to the Mountain View Fire Ignition.

Table 4 shows Liberty's Energy Release Component percentile forecasts "obtained from the U.S. Forest Service Wildland Fire Assessment System ("WFAS") and updated on Liberty's fire weather dashboard daily."[72] Liberty explains that the ERC is

> "a fire danger index intended to measure intermediate- to longer-term dryness [of fuels] and its calculation considers antecedent conditions over the prior several weeks, ERC calculations typically show little variation at sub-daily timescales."[73]

Table 4 illustrates that Liberty's fire weather dashboard showed the ERC percentile forecasts for the Topaz zone as 0.0 for the entire week up until November 15, 2020 at 12:00 pm when Liberty's dashboard displayed non-zero forecasts.

[72] Attachment 7, question 1c.

[73] Attachment 7, question 1e.

Table 4:
ERC percentile forecasts from November 14, 2020 through November 17, 2020 for the Topaz zone on Liberty's fire weather dashboard.[74]

	Forecasted day							
Date and time forecast was made	**11/16**	**11/17**	**11/18**	**11/19**	**11/20**	**11/21**	**11/22**	**11/23**
November 14 at 12:00 am	0.0	0.0	0.0	0.0	0.0	-	-	-
November 14 at 6:00 am	0.0	0.0	0.0	0.0	0.0	-	-	-
November 14 at 12:00 pm	0.0	0.0	0.0	0.0	0.0	-	-	-
November 14 at 6:00 pm	0.0	0.0	0.0	0.0	0.0	0.0	-	-
November 15 at 12:00 am	0.0	0.0	0.0	0.0	0.0	0.0	-	-
November 15 at 6:00 am	0.0	0.0	0.0	0.0	0.0	0.0	-	-
November 15 at 12:00 pm	57.9	54.1	36.4	39.2	40.9	42.2	-	
November 15 at 6:00 pm	53.4	57.9	54.1	36.4	39.2	40.9	42.2	-
November 16 at 12:00 am	53.4	57.9	54.1	36.4	39.2	40.9	42.2	-
November 16 at 6:00 am	53.4	57.9	54.1	36.4	39.2	40.9	42.2	-
November 16 at 12:00 pm	60.5	61.3	44.8	38.0	38.4	39.2	45.1	-
November 16 at 6:00 pm	-	60.5	61.3	44.8	38.0	38.4	39.2	45.1
November 17 at 12:00 am	-	60.5	61.3	44.8	38.0	38.4	39.2	45.1
November 17 at 6:00 am	-	60.5	61.3	44.8	38.0	38.4	39.2	45.1

[74] Attachment 6, question 8c, attachment "FPI Forecasts.pdf."

When asked to explain what an ERC percentile of 0.0 represents, Liberty stated it "means there is no potential energy available within fuels to sustain the spread of a fire, such as when there is snow cover on the ground" or it may "reflect data gaps due to delays or other issues with WFAS reporting."[75] When asked to explain what an increase of 0.0 to 60.0 in ERC percentile forecasts from one day to another means, Liberty stated it "means that the amount of potential energy that would be released in the flaming front of a fire has increased due to an increase in fuel dryness, and that raw ERC values are higher than those seen on 60% of historical days at a specific location."[76] Clearly, as shown in Table 4 above, the ERC percentile forecasts spike, which Liberty should have recognized and responded to.

3. Other Zones' Energy Release Component Percentile Forecasts Also Behaved Erratically in the Days Leading Up to the Mountain View Fire Ignition.

Regarding the ERC values, Liberty stated that the ERC percentile forecasts "were obtained from the U.S. Forest Service Wildland Fire Assessment System ("WFAS"), it is possible that some data in the ERC tables did not display correctly on occasion due to delays or other issues with WFAS reporting, such as when there was an outage in the WFAS."[77] The ERC tables for the Portola and Sierra Brook zones showed very sudden fluctuations, as summarized in Table 5 below. Liberty's dashboard problems were not limited to the Topaz zone.

[75] Attachment 2, question 5a.

[76] Attachment 2, question 5b.

[77] Attachment 7, question 3a.

Table 5:
ERC percentile forecasts from November 14, 2020 through November 17, 2020 for the Portola zone on Liberty's fire weather dashboard.[78]

	Forecasted day							
Date and time forecast was made	**11/14**	**11/15**	**11/16**	**11/17**	**11/18**	**11/19**	**11/20**	**11/21**
November 14 at 12:00 am	57.0	57.0	55.0	51.0	56.0	58.0	55.0	-
November 14 at 6:00 am	57.0	57.0	55.0	51.0	56.0	58.0	55.0	-
November 14 at 12:00 pm	57.0	56.0	56.0	49.0	40.0	38.0	40.0	-
November 14 at 6:00 pm	57.0	56.0	56.0	49.0	40.0	38.0	40.0	-
November 15 at 12:00 am	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0
November 15 at 6:00 am	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0
November 15 at 12:00 pm	-	47.6	49.4	47.7	33.9	33.0	34.5	36.9
November 15 at 6:00 pm	-	47.6	49.4	47.7	33.9	33.0	34.5	36.9
November 16 at 12:00 am	-	-	47.6	49.4	47.7	33.9	33.0	34.5
November 16 at 6:00 am	-	-	47.6	49.4	47.7	33.9	33.0	34.5
November 16 at 12:00 pm	-	-	56.9	55.7	44.6	39.3	41.2	42.2
November 16 at 6:00 pm	-	-	56.9	55.7	44.6	39.3	41.2	42.2

Furthermore, Liberty states that it "does not know exactly when it became aware of the data issues described."[79] When asked how often similar discrepancies occurred,

[78] Attachment 6, question 8c, attachment "FPI Forecasts.pdf."

[79] Attachment 7, question 3b.

Liberty responded that it "is not aware of records formally tracking instances in which data issues such as those referenced…[above] occurred."[80]

III. CONCLUSION

Liberty relied on NWS forecasts and was not aware of the risky fire weather that was developing at the site of the ignition. This is despite Liberty having real-time weather data from its own weather station network available. Moreover, Liberty remained ignorant of the build-up of dead fuels and had ceased sampling and tracking this information 14 days prior to the ignition. Finally, Liberty relied heavily on its own fire weather dashboard forecasts for operational needs. However, this dashboard showed erratic performance over the period in question. Unfortunately, Liberty did not observe any performance issues that may have made it unreliable.

[80] Attachment 7, question 3e.

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.