

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking Regarding
Emergency Disaster Relief Program.

Rulemaking 18-03-011

**MOTION OF THE PUBLIC ADVOCATES OFFICE
FOR AN IMMEDIATE ORDER REQUIRING COMMUNICATION PROVIDERS
TO COMPLETE CALLS AND DELIVER DATA TRAFFIC AND PROVIDE
OTHER POST-DISASTER CONSUMER PROTECTION RELIEF**

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I. INTRODUCTION

Pursuant to Rule 11.1 of the California Public Utilities Commission's (Commission) Rules of Practice and Procedure (Rules), the Public Advocates Office at the California Public Utilities Commission (Public Advocates Office) files this motion requesting that the Commission immediately order Communications Providers¹ to:

- (1) Complete calls and deliver data traffic, without delay, at all times, including during emergency response operations;
- (2) Provide backup generators and/or battery power at wireless facilities located in the Tier 1 and 2 High Fire Threat Areas and Federal Emergency Management Agency (FEMA) designated flood plains;
- (3) Increase route diversity to support 9-1-1 service by identifying the public safety answering points (PSAPs) and backhaul facilities that depend upon only one route and submitting implementation plans for secondary routes;
- (4) Take immediate steps to test and ensure reliable distribution of the emergency alert and warning system messaging; and
- (5) Such other and further relief as the Commission deems necessary to ensure the safe, resilient and reliable communications network before, during and after emergencies.²

As demonstrated below, a reliable and resilient communications network is urgently needed to ensure public safety. It is increasingly clear from the record developed in this and other Commission proceedings that emergency calls and notifications often fail during floods, fires, and other disasters, leaving the public in a communications void.³ In the face of increasing threats and the loss of lives from wildfires and other natural disasters that are associated with global climate change, the

¹ As used herein, Communications Providers includes: telephone corporations holding a Certificate of Public Convenience and Necessity (CPCN), telephone corporations with a Wireless Identification Registration (WIR), Digital Infrastructure and Video and Video Competition Act (DIVCA) State Franchise holders, registered Voice Over Internet Protocol (VoIP) providers under Public Utilities Code section 285.

² See Appendix A – List of Necessary Safety Measures for Communications Providers.

³ L. Krieger, "Camp Fire Created a Black Hole of Communication," *San Jose Mercury News*, December 16, 2018, available at <https://www.mercurynews.com/2018/12/16/camp-fire-created-a-black-hole-of-communication/>.

Commission should exercise its emergency powers to ensure a communication system that functions fully during emergencies.⁴

II. THE COMMISSION HAS THE AUTHORITY TO ORDER THE REQUESTED RELIEF

A. The Relief is Appropriately Part of the Phase 2 Scope

This Order Instituting Rulemaking (Rulemaking) was initiated in response to the 2017 wildfires in Northern California, in recognition of the need to “adopt comprehensive post-disaster consumer protection measures for all utilities...” including electric, gas, telephone, water, and sewer utilities under the Commission’s jurisdiction.⁵ Track 1 of the Rulemaking made permanent certain billing relief measures that were initially adopted on a temporary basis in Resolutions M-4833 and M-4835. Track 2 of this rulemaking is scoped to consider a wide range of additional consumer protections needed, including what kinds of disasters trigger customer protections, service reconnection interval requirements, and types of information needed by consumers during and after emergencies.⁶ Thus, the additional customer protection measures urged here are within the scope of Track 2.

B. The Commission Has the Legal Authority to Order the Requested Relief

Communications network failures before, during, and in the aftermath of disasters impact public safety.⁷ The Commission has the authority to immediately propose and adopt rules when public safety is at issue. Specifically, the California Constitution provides that the Commission may establish rules for all utilities under its jurisdiction

⁴ Indeed, a former Commissioner has called this a “legal and ethical duty.” See, C. Sandoval, “Principles for Utility Regulation in the face of Increasing Wildfire Risk,” found on the “All About Ethics” blog of the Markkula Center for Applied Ethics at the University of Santa Clara, <https://www.scu.edu/ethics/all-about-ethics/principles-for-utility-regulation-in-the-face-of-increasing-wildfire-risk/>. The All About Ethics blog also contains a backgrounder on California’s increasing susceptibility to wildfires, at <https://www.scu.edu/ethics/all-about-ethics/background-on-california-wildfires/>.

⁵ Order Instituting Rulemaking, p. 1.

⁶ Order Instituting Rulemaking, pp. 8-10.

⁷ Cal. Const., Art. XII, § 1.

and Section 451 of the Public Utilities Code provides that “[e]very public utility shall furnish and maintain such adequate, efficient, just, and reasonable service, instrumentalities, equipment, and facilities ... as are necessary to promote the safety, health, comfort, and convenience of its patrons, employees, and the public.” Public Utilities Code section 768 authorizes the Commission to “require every public utility to construct, maintain and operate its line, plant, [and] system ... in a manner so as to promote and safeguard the health and safety of its employees, passengers, customers, and the public.” Thus, even where the Commission’s authority is not explicitly provided for, the Commission has broad authority under Public Utilities Code section 701 to “do all things ... which are necessary and convenient” in the exercise of its regulatory authority.

The Commission has an ongoing duty to ensure reasonable service quality standards under Public Utilities Code § 2896. A telephone corporation is any corporation operating a telephone line for compensation in the state, thus both wireline and wireless providers are telephone corporations operating telephone lines, regardless of the technology used.⁸ Moreover, Public Utilities Code section 558 requires every telephone and telegraph corporation to “receive, transmit, and deliver without discrimination or delay, the conversations and messages of every other such corporation with whose line a physical connection has been made.” This section creates a statutory duty for telephone corporations to carry and complete calls. This obligation applies to “all carriers involved in the origination, routing and completion of calls.”²

III. THE COMMISSION SHOULD TAKE IMMEDIATE ACTION

A. The Communications Network is Essential to Public Safety

A recent Commission whitepaper entitled “Safety Principles for Communications Providers” details the critical need for resilient and dependable communications during

⁸ Public Utilities Code §§ 233, 234.

² D.18-07-045, p. 2, citing D.97-11-024, *Re Competition for Local Exchange Service* (1997), 76 Cal.P.U.C.2d 458.

emergencies.¹⁰ Among other things, it acknowledges that “California’s communications system is our most essential component for public safety, yet it is our weakest link.”¹¹ Similarly, California’s first responders and public safety personnel stressed their dependence upon the communications network for effective emergency response operations at the November 1, 2018 workshop in this Rulemaking.¹² As Director Mark Ghilarducci of California’s Office of Emergency Services (CalOES) put it, “It goes without saying that the communications network is foundational to public safety. . . . When you are responding into an emergency, communications are your lifeline.”¹³ Among other things, the communications network delivers federal and state WEA system messages and warnings, transmits 9-1-1 and reverse 9-1-1 calls, and helps First Responders make decisions about when and where to deploy resources. The communications network also allows local news agencies to provide coverage of catastrophic events, and communities to keep in touch during emergencies.

In the Service Quality Rulemaking, the Commission acknowledged the “central importance of network infrastructure in supporting emergency services.”¹⁴ The staff report submitted in this proceeding, reiterated this point, stating, “When communication services are compromised, access to emergency services and first responders is lost.” “The reliability of communication infrastructure is vital to ensuring public safety.”¹⁵

¹⁰ Safety Principles for Communications Providers (2019), p. 1. This paper was entered into the record of this Rulemaking via a Joint Administrative Law Judges’ Ruling on April 8, 2019.

¹¹ Safety Principles for Communications Providers (2019), p. 1.

¹² Public safety authorities on record of the November 1, 2018 workshop in R.18-03-011 include Cal OES Chief of Response Headquarters Operations, CalOES 911 Branch Manager, Captain of the San Joaquin County Sheriff’s Office, Sheriff and Emergency Services Director for Lake County, Director of Community Relations and Program Development, 211 Sacramento,

¹³ November 1, 2018 Workshop, Reporter’s Transcript (RT) at 12:25-27.

¹⁴ D.15-08-041, p. 11.

¹⁵ CPUC Communications Division Staff Report, *Analysis of Major Communication Outages in California during the 2017 January-February Storms*,” April 2018, available at http://cpuc.ca.gov/uploadedFiles/CPUC_Public_Website/Content/Utilities_and_Industries/Communications_-_Telecommunications_and_Broadband/Consumer_Programs/Service_Quality/StormsReport.pdf, pp. 1, 3.

Similarly, in the Rural Call Completion Investigation,¹⁶ the Commission stated that “[t]he availability of communications services to first responders, including those fighting wildfires, is important to situational awareness and public safety...”¹⁷ These examples show that the communications network is an essential component to public safety.

Another critical point borne out by the workshops held in this proceeding is that the wireless network is rapidly becoming the dominant medium by which consumers communicate. The most recent 2017 data shows that 42 million customers subscribe to wireless service providers, versus 7.8 million for VoIP and 6.4 million subscribed to traditional wireline (landline) service.¹⁸ Approximately half of California households are already wireless only.¹⁹ Not surprisingly, the increased dependence on wireless phones correlates with increasing dependence on wireless for 9-1-1 emergency calls. Cal OES reports that during the October 2018 wildfires, approximately 80 percent of all 9-1-1 calls came from cellular devices.²⁰ The Sheriff and Emergency Services Director for Lake County stressed their reliance upon wireless communications for providing mass notifications to their constituents. Text notifications have become “the method of communication that society has come to expect and one which we rely upon for information.”²¹

In light of the importance of a reliable wireless communications network, and the increasing use of wireless technology for emergency communications, the Commission should exercise its authority over Communications Providers to order the emergency relief requested herein.

¹⁶ Rural Call Completion Investigation, I.14-05-012.

¹⁷ D.16-12-066, p. 169, Finding of Fact 23.

¹⁸ FCC Voice Telephone Service Report for California data as of June 30, 2017.

¹⁹ National Center for Health Statistics, National Health Interview Survey Early Release Program, U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, data released in December 2017.

²⁰ November 1, 2018 Workshop (RT at 15:12-22).

²¹ November 1, 2018 Workshop (RT at 83:15-26).

B. The Communications Network Is No Longer Resilient

The shift to the new technologies has brought about a decrease in the resiliency and redundancy of the communications network. Cellular, wireline, data, VoIP services, and the PSAPs that are instrumental in routing 9-1-1 calls, all rely upon “the backhaul” connections provided by wireline telephone service. But while the wireline network is supported by back-up power at the central offices, back-up power at the cellular wireless towers is not uniform. Redundant pathways, network diversity, and back-up power are “critical components that should be implemented to ensure that back haul connectivity is maintained during a disaster.”²² Without such redundancies, the 9-1-1 centers can become “isolated.”²³

While the wireline network is supported by line redundancies, people are relying more on cellular wireless service, including first responders. At the November 2018 Workshop, CalOES Director Mark Ghilarducci described the transition from the secured wireline communications system of the past to today’s more Internet-based and cellular-based systems as a “tremendous addition and asset” for public safety agencies and one they increasingly rely upon. Yet, he also observed that this shift represents a movement away from the “secure landline” system over which the government had more control, and there were greater redundancies. Budge Currier, Cal OES 9-1-1 Branch Manager, also underscored the need for redundant paths, also called “route diversity,” to the public safety answering points to support 9-1-1 and strengthen the backhaul system.²⁴

C. The Commission Must Act Now

In the Track 1 Decision in this Rulemaking, the Commission determined that the customer protections adopted in this proceeding apply to “telephone corporations,” including companies who provide access to 9-1-1/E9-1-1 in the residence, LifeLine

²² November 1, 2019 Workshop (RT 18:20-24).

²³ November 1, 2019 Workshop (RT 61:8-13).

²⁴ November 1, 2019 Workshop (RT 97:1-28, 98:6-11.)

providers, facilities-based providers of VoIP service, and carriers of last resort.”²⁵ Thus, the Commission has already determined that it is appropriate to apply the emergency customer protections to Communications Providers as defined herein. The Commission has also previously acknowledged the nexus between reliable wireless infrastructure and public safety.²⁶ For example, the Commission recognized that investment in wireless infrastructure brings significant safety benefits by enabling the public and first responders to communicate during emergencies.²⁷

The high likelihood of the occurrence of more disasters this year calls for the immediate Commission action laid out in this Motion. The failure of our communications systems in emergencies is a life or death matter, and one that must be addressed immediately. The Commission should exercise its authority and act to require Communication Providers to take all steps necessary to ensure voice and data traffic to and from emergency services is completed without delay.

IV. SUPPORT FOR THE REQUESTED RELIEF

A. The Commission Has Enough Support to Act

The record in this rulemaking and those developed through multiple related open proceedings show that the Commission has gathered a broad base of information that demonstrates the importance of emergency notifications, call completion, and the critical role Communications Providers play in disaster planning, response and recovery.²⁸ The common thread in these dockets is the need to improve our ability to communicate with emergency services during disasters and widespread outage conditions.

In the instant Rulemaking alone, the Commission has held multiple workshops, including the jointly sponsored CalOES and Commission Workshops held in November of last year, and has received comments from a broad array of parties responding to

²⁵ D.18-08-004, pp. 7-8, 18, Conclusion of Law No. 7.

²⁶ D.08-10-017, pp. 2-3.

²⁷ D.16-01-046, p. 15.

²⁸ See Appendix B – Related Proceedings and Common Issues.

detailed questions issued through multiple Assigned Commissioner and Administrative Law Judge rulings. The most recent ruling issued in this case, *Assigned Commissioner and Administrative Law Judge's Ruling Seeking More Information on Emergency Disaster Relief Program* ("February 5th Ruling") directed interested parties to file and serve comments on topics arising from the CalOES-Commission November 1, 2018 workshop and further directed parties to respond to questions derived from Sonoma County's, *Operational Area Alert and Warning Functional Exercise After Action Report/Improvement Plan* (After-Action Report).²⁹ The Commission is to be commended for compiling a thorough record, and should take action now to ensure public safety.

B. Documented Failures of the Communications Network During Emergencies

1. All Calls, particularly 9-1-1 Calls, Need to Be Completed, and Data Promptly Delivered

As the communications network evolves to become increasingly more reliant on Internet and wireless services, it is vital that all calls (wireline and wireless calls) be completed, particularly calls to and from 9-1-1. The importance of wireless to access 9-1-1 during emergencies is illustrated by the fact that 80 percent of all calls to 9-1-1 are initiated by wireless devices. However, these calls cannot go through when the wireless network is down, and it appears that the number of outages are increasing even beyond the current average of about 15 outages and 255 hours of downtime a month.³⁰ The Commission's Communication Division also analyzed communications system failures following the severe rainstorms in January and February of 2017.³¹ The Storms Report

²⁹ February 5th Ruling.

³⁰ November 1, 2018 Workshop (RT 59:24-27).

³¹ Communications Division Staff Report, *Analysis of Major Communication Outages in California during the 2017 January-February Storms*, April 2018, available at http://cpuc.ca.gov/uploadedFiles/CPUC_Public_Website/Content/Utilities_and_Industries/Communications_-_Telecommunications_and_Broadband/Consumer_Programs/Service_Quality/StormsReport.pdf, Table 1, pp. 2, 22.

found that nearly 1 million customers lost access to 9-1-1 due to service outages during these months.

Furthermore, the Communications Division documented and analyzed call completion failures reported by rural customers in Rulemaking I.14-05-012, identifying the myriad causes of communications network failures as “software driven issues, facilities and network design issues, and service issues.”³² Numerous news reports show that the failure of communications interfered with evacuation warnings during the Camp Fire.³³

The Commission has information on whether the communications network is making progress in completing calls and data traffic, pursuant to Service Quality rules and reporting requirements in General Order 133-D. The Commission requires in Decision (D.) 16-10-019 that all Communications Providers report Major Service Interruptions to the Commission.³⁴ Wireline providers report quarterly on whether two measures of outages (Customer Trouble Tickets and Out of Service Repair Intervals) meet the Commission’s standards. These reports show that AT&T, which provides service to over 40% of the wirelines in California, has not met the Out of Service Repair Interval standard.³⁵ If standards cannot be met during normal times, problems can be expected to be worse during emergencies.

³² D.16-12-066, p. 1. Communications Division analysis of survey confirming the failures of call completions reported by rural California customers, summarized in Order Instituting Rulemaking I.14-05-12, pp. 5-6. See also D.16-12-066, pp. 69-77, 138-153.

³³ “Camp Fire Created a Black Hole...”, *supra* note 2; “Camp Fire Evacuation Warnings Failed to Reach More Than A Third of Residents Meant to Receive Calls,” *San Diego Union-Tribune*, November 30, 2018, <https://www.sandiegouniontribune.com/news/california/la-me-ln-paradise-evacuation-warnings-20181130-story.html>; and “Phones Fail in California Fires, Highlighting Cell Vulnerability,” *Bloomberg*, November 16, 2018, <https://www.bloomberg.com/news/articles/2018-11-17/phones-fail-in-california-fires-highlighting-vulnerability>.

³⁴ General Order 133-D, § 4.

³⁵ AT&T Advice Letters 44735 and 4333, both filed February 15, 2019 show that AT&T did not meet the Out of Service Repair Interval metrics in 2017 or 2018. For prior years, see Communications Division Staff Report of May 8, 2018 on California Wireline Telephone Service Quality Pursuant to General Orders 133-C and 133-D Calendar Years 2014-2016.

In recognition of the serious public safety risks resulting from the loss of phone service, the Commission adopted penalties (or alternatively, investments to measurably improve performance) in 2016.³⁶ However, the permitted investments in lieu of penalties have not achieved the intended effect and, even with the new penalties, the Commission's outage standards are still not met. The Commission should no longer tolerate the extensive periods, over two years in some cases, of not meeting the outage standards. Thus, at a minimum, the Commission should affirm its previous order and direct all communications providers to complete all calls during emergencies.

Finally, data delays can exacerbate threats to public safety. Data transmissions can include emergency communications between first responders, or emails from electric power companies notifying communications companies of potential de-energization or outage events. If the data transmissions are slowed, these messages and notifications may not be timely received. Data transmission problems were highlighted when Verizon Wireless throttled the emergency telecommunications ability of the Santa Clara County Fire Department control and command unit deployed to the Mendocino Complex Fire.³⁷ The Commission should take immediate action to require communication providers to complete calls and deliver data traffic to emergency services providers in emergencies.

2. Robust Backup Power Requirements Are Essential to Support a Reliable and Resilient Communications Network

The interdependency of communications networks and the electrical grid cannot be ignored. Power outages contribute to failures of the communications networks, and people rely upon the communications network to provide critical information during power outages. The *San Jose Mercury News* recently reported that during the Camp Fire

³⁶ General Order 133-D, Rule 9.7.

³⁷ Declaration of Anthony Bowden (August 17, 2018) filed in the U.S. Court of Appeals, D.C. Circuit Case No. 18-1051. <https://arstechnica.com/wp-content/uploads/2018/08/fire-department-net-neutrality.pdf>. See also, J. Brodtkin, "Verizon throttled fire department's 'unlimited' data during California wildfire," *Ars Technica* August 21, 2018, at <https://arstechnica.com/tech-policy/2018/08/verizon-throttled-fire-departments-unlimited-data-during-calif-wildfire/>.

in Paradise, California, a substantial number of emergency notifications were never delivered because “there is no requirement to have backup electrical power at cell towers.”³⁸

Requiring more robust backup battery power and generators will decrease wireless service outages and shorten their duration. The Communication Division’s Storms Report (on the January and February 2017 rainstorms) cites the loss of commercial power as responsible for 39% of outages and notes that one wireless provider had a restoration time of almost half a year. According to the report, “[m]any of these outages could have been prevented with better availability of backup power for wireless providers and improved reliability of cable facilities for wireline providers.”³⁹

Both the Federal Communications Commission (FCC) and the Commission have approached the issue of cell-tower backup power, and then effectively backed away. For example, in 2007 the FCC ordered the wireless cellular carriers, with some exceptions, to have an emergency backup power source for all facilities, including central offices, and cell tower sites.⁴⁰ However, the FCC’s rule was stayed pending an appeal.⁴¹ Shortly

³⁸ L. Krieger, “Camp Fire Created a Black Hole of Communication,” *San Jose Mercury News*, December 16, 2018, available at <https://www.mercurynews.com/2018/12/16/camp-fire-created-a-black-hole-of-communication/>:

“County logs from Nov. 8 show that messages reached 16,683 phones but failed to reach another 10,869 despite repeated attempts ... In the eastern Paradise neighborhoods first hit by fire, about 56 percent of the 4,272 emergency alert calls failed due to what CodeRED manufacturer OnSolve calls “operator intercept” or “timed out,” meaning that the phone has been disconnected, the number changed or no longer in service, or — most likely — the network didn’t find sufficient signal strength or bandwidth to make the call work, due to cell tower failure”).

³⁹ Communications Division Staff Report, *Analysis of Major Communication Outages in California during the 2017 January-February Storms*” (April 2018), available at http://cpuc.ca.gov/uploadedFiles/CPUC_Public_Website/Content/Utilities_and_Industries/Communications_-_Telecommunications_and_Broadband/Consumer_Programs/Service_Quality/StormsReport.pdf, p. 28.

⁴⁰ Order on Reconsideration, in re *Recommendations of the Independent Panel Reviewing the Impact of Hurricane Katrina on Communications Networks*, FCC Order 07-177 (October 4, 2007), Appendix B, Final Rule Changes.

⁴¹ The United States Court of Appeals for the District of Columbia Circuit granted a motion to stay the FCC’s rule, pending court review (February 28, 2008); *CTIA v. FCC*, Case No. 07-1475, consolidated with 07-1477, 07-1480, 530 F.3d 984 (D.C. Cir) 2008).

thereafter, in D.08-09-014, the Commission declined to impose a State-specific backup power requirement for utility transmission assets, including cell sites, believing that the FCC’s rules were still pending.⁴² However, the appeal of the FCC’s cellular backup power rules was dismissed in 2009⁴³ and since that time, neither the FCC nor the Commission has reexamined the issue.⁴⁴

The Commission recently recommended that the FCC strengthen its rules regarding the availability of back-up power for Originating Service Providers and 9-1-1 Service Providers during natural disasters.⁴⁵ Because action on this request may not be taken for some time, if at all, we should not wait for the FCC to act. It is incumbent on this Commission to adopt backup rules, at least in identified fire and flood hazard areas. Therefore, the Commission should require wireless facilities to provide backup battery power and generators for their wireless communication facilities located in designated High Fire Threat Districts and FEMA-identified flood plains.

3. The Need for Increased Route Diversity to Support 9-1-1 Service

The failure to ensure redundant and reliable networks impairs communications during emergencies and threatens public safety. Mendocino County is a prime example of communications failures in emergencies being exacerbated by a lack of route diversity. During a 2014 wildfire, County officials reported an accident that destroyed 400 feet of a local telephone carrier’s aerial fiber optic cable, which resulted in the loss of almost every type of communication – telephone, Internet, cellular, and 9-1-1 -services for

⁴² D.08-09-014, p. 4.

⁴³ *CTIA-The Wireless Assn. v FCC*, July 31, 2009 Order, at 2009 U.S. App. LEXIS 17031. See also, “FCC Will Not Override Rejection of its Backup Power Order,” at <https://wia.org/fcc-will-not-override-rejection-of-its-backup-power-order-sp-646072066/>.

⁴⁴ In D.10-01-026, p. 24, the Commission ordered consumer education about backup power at the residence or other location where VoIP service is located but did not require the carriers to provide backup power at their facilities.

⁴⁵ Comments of the California Public Utilities Commission, FCC Public Safety Docket 11-60 (February 4, 2019) p.7. Available at <https://ecfsapi.fcc.gov/file/10204213568217/PS%20Docket%20No.%2011-60%20CPUC%20Comments%20to%20FCC%20on%20Wireless%20Resiliency%2C%202-4-2019.pdf>.

almost two days.⁴⁶ In the 2017 Redwood Complex Fire, wildfires took out the main cell tower and the Laughlin Repeater, leaving residents of Willits without cellphone or landline service, or the ability to call 9-1-1.⁴⁷ These examples illustrate the severe consequences and lengthy duration of isolation resulting from the lack of a redundant network. Had alternate or more diverse communications routes been available, the impact of these wildfires on communications would likely have been considerably less.

Some states, such as Colorado, already require diverse routing for 9-1-1 facilities.⁴⁸ To date, the Commission has encouraged, but not required Communications Providers to offer diversity, resiliency, and redundancy options to PSAPs.⁴⁹ The record and these examples support Commission action.⁵⁰ The Commission should require Communication Providers to identify PSAPs and backhaul facilities that depend upon only one route and require these entities to submit implementation plans for secondary routes to these critical points in the communications network.

4. The Need to Improve the Reliable Distribution of the Emergency Alert and Warning System

The February 5th Ruling and the Sonoma County Alert and Warning Functional Exercise Report showed that when Sonoma County sent test messages through their “SoCoAlert” system, only about half (51%) of the messages were actually delivered to a person or answering machine.⁵¹ After the October 2017 North County wildfires, 15

⁴⁶ <http://www.mendocinobroadband.org/wp-content/uploads/Incident-Report-from-county-website.complete.pdf>.

⁴⁷ <https://sanfrancisco.cbslocal.com/2017/10/10/anxious-mendocino-county-residents-feeling-cut-off-by-redwood-complex-fire/>

⁴⁸ D.16-12-066, p. 14, FN 7.

⁴⁹ D.16-12-066, p. 139 stated that the Commission’s CPED should examine whether the lack of route diversity contributed to outages and whether steps toward physical redundancy had occurred.

⁵⁰ D.16-12-066, pp.15-16, and Finding of Fact 12.

⁵¹ February 5th Ruling, p. 2.

PSAPs were impacted and approximately 72,000 people had difficulty reaching 9-1-1 due to the lack of a wireless service signal.⁵²

The recent fires provide more evidence of the vulnerability of the emergency notification systems. Following the Wine County Fires in Northern California in October 2017, there were numerous reports that many public safety personnel were unable to communicate with one another or reach 9-1-1 due to network failures.⁵³ At the November 2018 Workshop, CalOES Director Ghilarducci stated that in the October 2017 Wine Country wildfire, a total of 341 cell sites went off-line.⁵⁴

In addition to the need to complete 9-1-1 calls, the essential caller location information conveyed with wireline 9-1-1 calls is not always provided when wireless service calls are placed. Location information is provided for most wireline calls as the calls are routed through the PSAPs. However, this location information may not be available during outages. The Sonoma County Alert exercises establish that there is an urgent need to improve both the ability to provide critical emergency alert and warning information to the public, and to be able to receive emergency 9-1-1 calls and location information from the public during emergencies.

5. Other Recommended Relief

This motion prioritizes four safety measures that must be addressed immediately to ensure the safe, resilient and reliable communications grid. Appendix A includes these priorities and additional safety measures for Communications Providers, as further recommended relief for the Commission's consideration.

⁵² November 1, 2018 Workshop (RT:15:12-22).

⁵³ See discussion of results and responses to the Bilingual 2017 Firestorm Mendocino-Napa-Sonoma Telecommunication Outage Survey Issued by North Bay North Coast Broadband Consortium (December 12, 2017); see also: K. Nida, First Responder Network Authority (Aug. 23, 2018) <https://firstnet.gov/newsroom/blog/serving-those-frontlines-west-coast-wildfires>.

⁵⁴ November 1, 2018 Workshop, RT at 14:28 and 15:1.

V. SUMMARY OF REQUESTED RELIEF

Given the critical importance of the communications grid to public safety, and the documented failures of communications during emergencies, the Commission should immediately issue an order directing the following:

- (1) Communications Providers shall expeditiously complete calls and deliver data traffic, without delay, during emergency response operations;
- (2) Communications Providers shall provide backup generators and/or battery power at wireless facilities located in the Tier 1 and 2 High Fire Threat Areas and Federal Emergency Management Agency (FEMA) Designated Flood Areas; and
- (3) Communications Providers shall increase route diversity to support 9-1-1 service by identifying PSAPs and backhaul facilities that depend upon only one route and submitting implementation plans for secondary routes;
- (4) Communications Providers shall take immediate steps to test and ensure reliable distribution of emergency alert and warning system messaging; and
- (5) Communications Providers shall provide such other and further relief as the Commission deems necessary to ensure the safe, resilient and reliable communications grid during emergencies. (See Appendix A.)

VI. CONCLUSION

The Commission, through its five open proceedings and several existing reports, has enough information to take meaningful and immediate action. Consistent with the authorities discussed in this motion, we urge to Commission to act promptly by directing Communications Providers to expeditiously complete all voice and data traffic during emergencies.

Respectfully submitted,

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Rulemaking 18-03-011

[PROPOSED] ORDER

Having reviewed the Public Advocates Office's May 20 2019 Motion for an Immediate Order Requiring Communications Providers⁵⁵ to Complete Calls and Deliver Data Traffic and Provide Other Post-Disaster Consumer Protection Relief, and the arguments and supporting authority and evidence cited therein;

And, good cause appearing therefor; the Motion of the Public Advocates Office is **GRANTED**. Communications Providers shall immediately undertake the following:

- (1) Complete calls and deliver data traffic, without delay, at all times, including during emergency response operations;
- (2) Provide backup generators and/or battery power at wireless facilities located in the Tier 1 and 2 High Fire Threat Areas and Federal Emergency Management Agency (FEMA) designated flood plains;
- (3) Increase route diversity to support 9-1-1 service by identifying public safety answering points (PSAPs) and backhaul facilities that depend upon only one route and submitting implementation plans for secondary routes;
- (4) Take immediate steps to test and ensure reliable distribution of the emergency alert and warning system messaging; and

⁵⁵ As used herein, Communications Providers includes: Telephone corporations holding a Certificate of Public Convenience and Necessity (CPCN), telephone corporations with a Wireless Identification Registration (WIR), Digital Infrastructure and Video and Video Competition Act (DIVCA) State Franchise holders, registered Voice Over Internet Protocol (VoIP) providers under Public Utilities Code section 285.

(5) Other relief [specify] ...

IT IS SO ORDERED.

Dated: May ____, 2019

ADMINISTRATIVE LAW JUDGE COLIN RIZZO

APPENDIX A - Necessary Safety Measures for Communications Providers

1. Complete calls and deliver data traffic expeditiously, without delay, during emergency response operations;
2. Require Communication Providers to have backup battery or generator power at wireless facilities, including both cell sites and 911 selective routers, in CPUC-designated High Fire Threat Districts and FEMA-identified flood plains.
3. Require Communication Providers to increase route diversity to support 9-1-1 service by (a) identifying PSAPs and backhaul facilities that service CPUC-designated High Fire Threat Districts and FEMA-identified flood plains and depend upon only one transmission route, and (b) submitting implementation plans to Communications Division for secondary routes to and from these critical points in the communications network, including a date certain by which they would be completed.
4. Take immediate steps to test and ensure reliable distribution of the emergency alert and warning system messaging;
5. Require Communications Providers to implement measures to ensure immediate and effective access to telephonic (including text) emergency notifications for households currently receiving services under California's Deaf and Disabled Telecommunications Program (DDTP), or otherwise known to house disabled individuals.
6. Require Communications Providers to confirm the existence of current and complete Mutual Aid/Assistance Agreements⁵⁶ among City and County emergency service offices, PSAPs and all public utilities, including Communications Providers.
7. Require Communications Providers to provide current contact information to public safety entities at the local, state and utility levels, as required by D.16-12-066. While not specified in D.16-12-066, contact information should be "redundant" in that it includes wireline and wireless phone numbers as well as email addresses.

⁵⁶ Mutual Assistance Agreements are a disaster planning tool to, in advance, store and communicate important information among utilities, local organizations and first responders, share resources, and allow the organizations to develop familiar points of contact. See the California Office of Emergency Services. See GO166 Standard 2.

8. Require wireless and VoIP providers possessing telephone numbers to provide customer number directories to municipal offices of emergency services.

APPENDIX B – Proceedings Addressing Communications Network Issues

Proceeding	Issue
<p>Post-Disaster Relief (R.18-03-011)</p>	<ul style="list-style-type: none"> • Coordination between Industries and First Responders. • What steps do Communications Service Providers/electric/water utilities currently take to coordinate with local and state first responders? (a.i. Q. (1)7.) • What steps do Communications Service Providers currently take to coordinate with electric and natural gas utilities during and after a disaster? (B.i., also see Q. (2)(3), Q.(3)(3)). • How will the Communications Service Providers provide information on customer relief protection measures to vulnerable populations, hard-to-reach customers and persons with disabilities? (Q. (1)(8)(b), Q(2)(6)(6), Q. (3)(6)(b).) <p><i>Joint Assigned Commissioner and ALJ's Ruling Seeking More Information on Emergency Disaster Relief Program, issued February 5, 2019.</i></p>
<p>Standards for Disaster and Emergency Preparedness (R.15-06-009)</p>	<ul style="list-style-type: none"> • What are the best practices in terms of communication protocols being used by utilities to communicate with government agencies at all levels and other utilities during emergencies? (Q. (2)(4).) • How are utilities currently communicating with communications providers in the context of emergencies? (Q. 1(a).) • What measures do utilities currently have in place to allow for effective communication with people who cannot access standard forms of communication (due to disability or limited English proficiency)? What specific measures can the Commission initiate to ensure that utilities communicate more effectively with such individuals before, during and after emergencies? (Q. (3)(7&8).) <p><i>Administrative Law Judge's Ruling, issued August 31, 2018 [requiring parties to respond to questions prior to the first workshop in Phase II.]</i></p>

Proceeding	Issue
De-energization (R.18-12-005)	<ul style="list-style-type: none"> • How do the IOUs coordinate with state and local first responders? • Scoping Memo Q(8) Examine the need for community and first responder notification improvements. (a.) How are the current notification requirements working? (Scoping Memo, Q. 4.) • Do notification standards differ for vulnerable populations? (<i>Scoping Memo</i> Q. (3)(b).) <p><i>Order Instituting Rulemaking</i>, filed December 18, 2018</p>
Rural Call Completion (I.14-05-012)	<ul style="list-style-type: none"> • By June 30, 2017, the Safety and Enforcement Division shall request and coordinate a meet and confer with California Office of Emergency Services, respondents, the California Utility Emergency Association, the California Communications Association, Cal-Fire, the Governor’s Tree Mortality Task Force, the Governor’s Office of Tribal Advisor, Emergency Services representatives for federally-recognizes tribes in California, County OES representatives, and Communications Division to discuss options to improve speed of access to communications services during emergencies such as large-scale fires, and recommend appropriate next steps for this Commission to speed communications services during emergencies to protect public safety, the environment, resources, and property including private, public, and utility property and infrastructure. <p><i>Decision 16-12-066</i>, O.P. 18.</p>

Appendix C – Overview of Related Proceedings

- The instant **Rulemaking re Emergency Disaster Relief** (R.18-03-011) – To date, this proceeding has concerned itself primarily with emergency post-disaster consumer protections following the disastrous wildfires of 2017, among other things addressing the duty of Communications Providers to discontinue billing and/or offer refunds to those consumers who lost service.
- **Rural Call Completion** (I.14-05-012) - The scope of the Rural Call Completion proceeding encompasses day-to-day call completion problems in rural areas of California, which squarely implicates emergency communications during a disaster. The scope was expanded in May of 2015 to specifically include issues regarding access to 911 service and the reliability of communications during emergencies. (See, D.16-12-066, p. 9.)
- **Rulemaking Re Physical Security of Electric Supply Facilities and Emergency Preparedness of Electrical Corporations and Water Companies** (R.15-06-009) – Although initially focused on electric and water facilities, a Phase II was instituted in response to the enactment of Pub. Util. Code § 768.6, which required among other things the development of “methods of improving communications between governmental agencies and the public, and methods of working to control and mitigate an emergency or disaster and its aftereffects.”
- **Rulemaking re De-energization of Power Lines in Dangerous Conditions** (R.18-12-005) – Among the issues considered in this proceeding is the impact of power-line de-energization on communications infrastructure.
- **Service Quality** (R.11-12-001) – The Commission has raised questions about the ability of existing network infrastructure to provide the quality of service required by statute, especially during storm or other emergency conditions. The Commission found that outages may “interfere with ability of individuals and businesses to contact emergency services and medical personnel, and adversely affect the health and safety of customers.” (D.15-08-041, p. 7.)