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BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking
Regarding Emergency Disaster Relief
Program.

Rulemaking 18-03-011

DECISION ADOPTING WIRELINE PROVIDER RESILIENCY STRATEGIES

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DECISION ADOPTING WIRELINE PROVIDER RESILIENCY STRATEGIES

Summary

This decision requires California's facilities-based wireline providers (wireline providers) to develop comprehensive resiliency strategies to prepare for catastrophic disasters and power outages. These resiliency requirements are for wireline facilities in Tier 2 and Tier 3 High Fire Threat Districts.

First, this decision defines resiliency, in the context of emergency services management by the wireline providers, as the ability to recover from or adjust to adversity or change through an array of strategies. These strategies include, but are not limited to: backup power, redundancy, network hardening, temporary facilities, communication and coordination with other utilities, emergency responders, the public and finally, preparedness planning.

Second, this decision adopts a 72-hour backup power requirement for the wireline providers' facilities in Tier 2 and Tier 3 High Fire Threat Districts providing service. This tailored approach ensures minimum service is maintained during disasters or electric grid outages, consistent with our mandates under the California Constitution and the California Public Utilities Code. The wireline providers have eight months from the effective date of this decision to implement this requirement across Tier 2 and Tier 3 High Fire Threat Districts for: (a) critical facilities as defined in R. 18-12-005; (b) facilities providing service to wireless networks; and (c) network equipment located in communities lacking sufficient wireless service coverage. Within 18 months, wireline providers shall implement this requirement for *all* facilities in Tiers 2 and 3 High Fire Threat Districts.

Third, this decision requires the wireline providers to file Communications Resiliency Plans with the Commission's Communications Division that detail

their ability to maintain a minimum level of service during a disaster or an electric power grid outage.

Fourth, the decision permits the near-term use of diesel generation as a primary backup power resource. However, the decision directs the wireline providers to explore ways to transition to renewable generation for backup power.

Finally, this decision directs the wireline providers to submit annual emergency operations plans. Generally, the emergency operations plan requires the wireline providers to collaborate with both the California Public Utilities Commission and the California Governor's Office of Emergency Services during a disaster or electric grid outage.

This proceeding remains open.

1. Background

1.1. Phase I Factual Background

The California Public Utilities Commission (Commission) established Rulemaking (R.) 18-03-011 to adopt an emergency disaster relief program for customers of electric, natural gas, water and sewer, and communications providers under this Commission's jurisdiction. With respect to the communications providers, we adopted Decision (D.) 19-08-025 in Phase I of R.18-03-011.

Decision 19-08-025 adopted a series of customer protection requirements for California customers of communications providers.¹ In D.19-08-025, we found that the wildfires of 2017, 2018, and 2019 as well as the Public Safety Power Shutoffs (PSPS) initiated by California's large investor-owned utilities

¹ D.19-08-025 at 33-35.

(IOUs) revealed failures in California's communications network. The failure of California's communications network during prior wildfire seasons and the 2019 PSPS events resulted in a loss of service to customers and endangered the lives of customers and first responders. This is especially troubling for the public, given that, as emphasized by officials from the Governor's Office of Emergency Services (CalOES), "when you are responding into an emergency, communications are your lifeline."²

At the November 1, 2018 joint Commission and CalOES workshop, held in this proceeding, CalOES officials stated that 80 percent of calls to 9-1-1 came from wireless devices.³ While 80 percent of 9-1-1 calls come from wireless devices, 20 percent of 9-1-1 calls come from wireline devices.⁴ Furthermore, rural communities make up the majority of High Fire Threat Districts. These communities have disproportionately less access to sufficient broadband services, and do not have robust wireless cellphone coverage.⁵ The public and first responders are heavily reliant on communications services and devices, regardless of the technology.

In addition to the November 1, 2018 Commission-CalOES joint workshop, the Commission convened several forums to improve coordination between communications providers and emergency response agencies. On April 8, 2019, the Commission released, for stakeholders in this proceeding, guiding safety

² R.18-03-011 November 1, 2018 Workshop Transcript at 12, Lines 25-27. Statement of Mark Ghilarducci, Director of the Governor's Office of Emergency Services.

³ *Id.* at 15, "In the October [2017] wildfires, approximately 80 percent of 9-1-1 calls came from cellular devices..." Statement of Mark Ghilarducci, Director of the Governor's Office of Emergency Services.

⁴ *Id.*

⁵ <https://www.broadbandmap.ca.gov/>, accessed on December 11, 2020.

principles for communications providers that identified gaps in California's communications networks that, if addressed, would significantly enhance public safety.⁶ Then on May 20, 2019, the Commission held an en banc public hearing, titled *The Future of California's Communications Grid*, where the discussion included the importance of communications services before, during, and after a wildfire.⁷

During disasters, when people are trying to escape from a threatened area or communicating with 9-1-1 centers, the communication link is critical for life-saving operations.⁸ We determined in D.19-08-025 that Phase II of this rulemaking, which is the subject of this decision, would focus on having a resilient and dependable communications network that aids first responders and communicates with the public reliably and in a timely manner.

1.2. Phase II Procedural Background

On November 20, 2019, a Phase II prehearing conference (PHC) was held to discuss the issues of law and fact, determine the need for a hearing, and the schedule for resolving the matter. Communications providers including Verizon Wireless Cellco Partnership, Sprint Communications and Sprint Spectrum, T-Mobile USA, AT&T Mobility, AT&T California/Pacific Bell and AT&T Corporation, Frontier Communications, Time Warner/Charter Fiberlink/Brighthouse Networks, Comcast Phone of California, Cox California Telecom, representatives of local officials, consumer advocates, and residents

⁶ Joint ALJ Ruling Entering *Safety Principles for Communications Service Providers* into the records of R.18-03-011 and R.18-12-005.

⁷ Communications Division En Banc, available at: <https://www.cpuc.ca.gov/CDenbanc/>

⁸ D.19-08-025 at 47.

appeared to discuss and address failures in the communications network infrastructure during the 2019 wildfires and PSPS events.

Following the PHC, on December 18, 2019,⁹ the assigned Administrative Law Judge (ALJ) issued a ruling soliciting from parties' additional issues for consideration in Phase II.

On January 21, 2020, the assigned Commissioner's Scoping Memo and Ruling¹⁰ was issued, adopting a schedule for this proceeding, with the goal of adopting communications service provider resiliency and disaster response requirements.¹¹

On March 6, 2020, the assigned Commissioner set forth an Assigned Commissioner's Proposal (Proposal)¹² for maintaining resilient and dependable communications networks that aid first responders and to allow the public to communicate reliably during catastrophes like wildfires or during PSPS events.

On July 20, 2020, the Commission adopted Decision (D.) 20-07-011 which formed resiliency rules for California's facilities-based wireless providers.

2. Jurisdiction

2.1. The Commission Has Jurisdiction Over Wireline Providers and the Facilities over Which 9-1-1 Services and Emergency Notifications are Sent, And Authority to Ensure the Reliability of Communications Networks in Emergencies.

California is in an unparalleled climate emergency. Just this past fall, California had its worst fire season in recorded history. According to the California Department of Forestry and Fire Protection (Cal Fire), over 9,639 fires

⁹ Assigned Administrative Law Judge's Ruling, December 18, 2019.

¹⁰ Assigned Commissioner's Scoping Memo and Ruling, January 21, 2020.

¹¹ R. 18-03-011 November 20, 2019 Prehearing Conference Transcript at 130, lines 12-17.

¹² Assigned Commissioner's Ruling and Proposal, March 6, 2020.

have burned 4,177,856 acres, more than 4 percent of the State's roughly 100 million acres of land, making 2020 the largest wildfire season recorded in California's modern history.¹³ Maintenance of communications infrastructure is critical in these types of catastrophic events for purposes of alerting citizens to hazards, reaching emergency services through 9-1-1, or receiving orders to evacuate.¹⁴ The Commission has responded to this ongoing threat to essential utility infrastructure and services by acting across the breadth of its jurisdiction, addressing energy, water, and communications networks and their customers.¹⁵

The Commission has both the jurisdiction and the authority to require wireline providers, including interconnected voice over internet protocol (VoIP) carriers, to maintain their facilities and ensure they have emergency backup power to last a minimum of 72-hours in Tier 2 and Tier 3 High Fire Threat Districts immediately following an electric grid outage to support all essential communications equipment and minimum service levels for the public. With the rules we adopt today, wireline sites will continue to receive and transmit signals when electric grid power sources are cut off. Uninterrupted communications service is an essential precondition for the ability of public safety officials to

¹³ <https://www.fire.ca.gov/incidents/2020>

¹⁴ *See, e.g.*, March 26, 2020 Opening Comments of Rural County Representatives of California to the Assigned Commissioner's Proposal at 3; April 3, 2020 Comments of Communications Workers of America at 2 ("loss of communications service is often a matter of life and death").

¹⁵ On December 13, 2018, the Commission opened R.18-12-005, the Public Safety Power Shutoff (PSPS) programs proceeding. In that rulemaking, the CPUC is examining the utilities' de-energization processes and practices, the impacts on communities and vulnerable populations, efforts to reduce the need for de-energization, and mitigation measures to reduce the impacts when implemented. The rulemaking will also review and improve existing reporting requirements. The Record of R.18-12-005 has been incorporated into this proceeding. (*See also* R.15-06-009 Standards for Disaster and Emergency Preparedness; I.14-05-012, Rural Call Completion.) The record of I.14-05-012 has also been incorporated into this proceeding.

communicate and coordinate with each other and with the public. First responders also need real-time information and data. The Commission's jurisdiction in this regard necessarily entails real time reporting by the carriers to emergency responders, the public, and the Commission when parts of their networks no longer function.

2.2. The Commission Has Jurisdiction Over Wireline Telephone Corporations, Other Communications Utilities, and their Facilities.

The Commission has plenary authority over public utilities, including during emergencies, pursuant to the California Constitution and the Public Utilities Code. The Commission's "broad regulatory power over public utilities" derives from Article XII of the State Constitution, which establishes the Commission, and gives it wide-ranging regulatory authority, including but not limited to "the power to ... establish rules, hold various types of hearings, award reparation, and establish its own procedures."¹⁶

Under Public Utilities Code¹⁷ Section (Section) 216 a "public utility" includes every "telephone corporation"¹⁸ where service is performed, or a commodity is delivered to the public or any portion thereof. A "telephone corporation" includes "every corporation or person owning, controlling, operating, or managing any telephone line for compensation in this state."¹⁹ A "telephone line" includes "all conduits, ducts, poles, wires, cables, instruments, and appliances, and all other real estate, fixtures, and personal property owned,

¹⁶ *Wise v. Pacific Gas & Electric Co.* (1991) 77 Cal.App.4th 287, 293 (citing California Constitution, Art. XII, Section 2, 4, 6.).

¹⁷ All subsequent references are to the Public Utilities Code unless otherwise specified.

¹⁸ Section 234.

¹⁹ Section 234.

or controlled, operated, or managed in connection with or to facilitate communication by telephone, whether such communication is had with or without the use of transmission wires.”²⁰ California’s Constitution specifically extends the Commission’s jurisdiction to companies engaged in “the transmission of telephone and telegraph messages.”²¹ This includes services delivered over any technology, including but not limited to, traditional copper lines, coaxial cable, fiber optic cable, and mobile or fixed wireless radios.

The Commission’s authority over public utilities includes oversight over both public utility services and facilities.²² The Commission is required to ensure that utilities, including telephone corporations, “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.”²³ The Commission also has an ongoing responsibility to ensure the reasonableness and sufficiency of utility facilities²⁴ and may order “additions, extensions, repairs, or improvements to, or changes in” utility facilities that the Commission finds “ought reasonably to be made.”²⁵

In addition, the Commission alone can grant operating authority to California utilities, *i.e.*, issue a certificate of public convenience and necessity

²⁰ Section 233.

²¹ Cal. Const., Art. XII, Section 3.

²² *See* Cal. Const., Art. XII, Section 1-6; Section 701.

²³ Section 451.

²⁴ Section 761.

²⁵ Section 762. *See also* General Order 95 and General Order 128.

(CPCN) to traditional utilities seeking to operate in California,²⁶ or a “registration” license to companies the Commission has determined lack “monopoly power or market power in a relevant market or markets,”²⁷ or to a “wireless registration” (WIR) wireless telephone corporations.²⁸

A CPCN or equivalent authority confers numerous benefits upon a public utility telephone corporation in addition to the obligations under the Public Utilities Code, Commission decisions, and regulations. For instance, public utility telephone corporations have the right to interconnect with other communications providers²⁹ and the ability to access the public rights-of-ways to build or install facilities to provide their services.³⁰

Under California law, the means by which service is provided, whether it be traditional landline, wireless technology, or IP-enabled, does not affect whether the provider meets the definition of a public utility telephone corporation. VoIP service providers fall within the definition of “Telephone Corporation” under Section 234, and their facilities fall within the definition of “Telephone Line” pursuant to Section 233.³¹ Thus, the Commission’s jurisdiction

²⁶ See Section 1001.

²⁷ Section 1013.

²⁸ See, e.g., Section 1013(h)(5) (a telephone corporation registered under section 1013 can lose its operating authority if it “violates any order, decision, rule, regulation, direction, demand, or requirement established by the commission under this code”); D.94-10-031, *supra* (wireless providers to be “[i]n all respects except authorization for market entry and ... rates” subject to the Commission’s jurisdiction, including “the requirement to file tariffs” other than rate tariffs). This structure was largely upheld on rehearing in D.94-12-042.

²⁹ State certification/registration entitles the telephone corporation to interconnect with other telephone corporations under 47 USC Section 251 and 252 and analogous state law.

³⁰ See e.g., Section 7901.

³¹ This is contrary to what many parties have argued in this proceeding, e.g., Comments of Comcast on ACR and Proposal at 14-16, April 3, 2020; CCTA Comments on ACR and Proposal

extends to VoIP carriers as well as to traditional landline carriers, and the Commission has clear authority to apply the backup power rules adopted in this decision today to VoIP carriers. We note that an 8th Circuit decision, *Charter Advanced Servs., LLC v. Lange*,³² finding that VoIP is an information service, does not prevent the Commission from exerting its authority over VoIP carriers under California Law, as this Commission, located in the 9th Circuit, is not bound by the 8th Circuit's decision.³³

The Commission came to a similar conclusion regarding VoIP service providers in D.19-08-025, a previous Commission decision issued in this proceeding. We stated in D.19-08-025 that "VoIP providers clearly fit within the plain language of the definition of a public utility 'telephone corporation.'"³⁴ Several parties challenged this determination in applications for rehearing of D.19-08-025.³⁵ On September 15, 2020, we issued D.20-09-012, modifying D.19-08-025, denying the applications for rehearing, and upholding our finding that VoIP providers are a public utility "telephone corporation." No party timely challenged D.20-09-012.

at 6-7, April 3, 2020; Cox Comments on ACR and Proposal at 32, April 3, 2020; Charter Comments on ACR and Proposal at 17, April 3, 2020; AT&T Comments on ACR and Proposal at 7, April 3, 2020.

³² 903 F.3d 715 (2018), finding that VoIP is an "information service"

³³ See D.20-09-012. Further, the 8th Circuit's reliance on the federal policy of nonregulation of information services as the basis for preempting state regulation of VoIP services is questionable. On October 21, 2019, the U.S. Supreme Court denied the Minnesota PUC's Petition for Writ of Certiorari, so the Court of Appeals decision still stands, and all appeals have been exhausted.

³⁴ D.19-08-025, Conclusion of Law 27.

³⁵ AT&T, VoIP Coalition, and CTIA timely filed applications for rehearing of D.19-08-025.

2.3. Police Power Authority over Matters Related to Public Health and Safety is Traditionally Reserved to the States

The “protection of the lives, limbs, health, comfort and quiet of all persons ... within the State” has been considered part of the States’ essential “police power” since the inception of our federal form of government.³⁶ The Tenth Amendment to the U.S. Constitution provides that “powers not delegated to the United States by the Constitution, nor prohibited by it to the States, are reserved to the States respectively, or to the people.” Police power, including the authority to protect the health and safety of its citizens, is unquestionably an area of traditional State control.³⁷ The U.S. Supreme Court has recognized this principle:

Throughout our history several States have exercised their police powers to protect the health and safety of their citizens. Because these are "primarily, and historically, . . . matter[s] of local concern," *Hillsborough County v. Automated Medical Laboratories, Inc.*, 471 U.S. 707, 719, 85 L. Ed. 2d 714, 105 S. Ct. 2371 (1985), the "States traditionally have had great latitude under their police powers to legislate as to the protection of the lives, limbs, health, comfort, and quiet of all persons," *Metropolitan Life Ins. Co. v. Massachusetts*, 471 U.S. 724, 756, 85 L. Ed. 2d 728, 105 S. Ct. 2380 (1985).³⁸

The California Constitution and California statute designate the Commission as the principal body through which the State exercises its police power in the case of essential utility network services. Section 451 gives the

³⁶ *Slaughter-House Cases* (1873) 83 US 36, 62, quoting *Thorpe v. Rutland & Burlington Railroad Co.* (1855) 27 Vermont 149.

³⁷ *Raich v Gonzalez*, 500 F3d 850, 866-67 (9th Cir., 2006).

³⁸ *Medtronic v. Lohr*, 518 U.S. 470, 475 (1996) (internal quotation marks omitted).

Commission broad authority to regulate public utility services and infrastructure as necessary to ensure they are operated in a way that provides for the health and safety of Californians:

Every public utility shall furnish and maintain such adequate, efficient, just, and reasonable service, instrumentalities, equipment, and facilities, including telephone facilities, as defined in Section 54.1 of the Civil Code, as are necessary to promote the safety, health, comfort, and convenience of its patrons, employees, and the public.³⁹

The Commission has extensive authority to implement this requirement.⁴⁰ Protections for Californians as consumers of telecommunication services are set forth in Sections 2890-2896. The Commission's public health and safety police powers are further reflected in the Commission's oversight of 9-1-1 service, referenced in several sections of the Public Utilities Code.⁴¹

Thus, police powers have been vested in the Commission by various provisions of the Public Utilities Code (*e.g.*, Sections 451, 584, 701, 761, 768, and 1001). Pursuant to the police power authority vested by the California Constitution and the Public Utilities Code, and acting as the State's expert agency in matters of public utility infrastructure, the Commission has articulated health

³⁹ Section 451. *See also PG&E v CPUC*, 237 CA 4th 812, 824 (2015) (upholding \$14.35 million penalty for failure to keep essential gas safety records in violation of section 451).

⁴⁰ Section 701, for example, authorizes the Commission to "do all things whether specifically designated in this part or in addition thereto, which are necessary and convenient in the exercise of such power and jurisdiction."

⁴¹ Section 742 (9-1-1 for public telephones); Section 2883 (9-1-1 service and "warm lines"); Section 2889.6 (information to customers regarding 9-1-1); and Section 2892 (requiring wireless carriers to provide access to 9-1-1 service).

and safety requirements that apply to the communications networks.⁴² The Commission's iterations of that authority include General Order (GO) 52 (Construction and operation of power and communication lines for the prevention or mitigation of inductive interference); GO 95 (Overhead electric [and communications] line construction); GO 128 (Construction of underground electric supply and communication systems); and GO 159-A (Construction of cellular radiotelephone facilities in California); among other such Commission orders and guidelines. The Commission's exercise of the State's police power authorizes us to ensure that all facilities that carry 9-1-1 traffic, including remote terminals,⁴³ are maintained to ensure uninterrupted connectivity during public emergencies, and to enable users to reach emergency services, regardless of the

⁴² They also apply to the wireless network and the wireline network upon which the wireless network depends.

⁴³ Remote Terminals have become prevalent in the last 20-30 years, replacing in many instances the traditional copper pairs or copper loops which were energized at the carrier's central office. In their place, the carriers have run high capacity feeder lines (often fiber) from the central office to remote terminals, where they connect with the (often copper) line into the subscriber's residence or business. Because the fiber is made of glass and not capable of carrying electrical current and therefore not energized, and there is in any event now two connection wires and electronics (that requires power) in the remote terminal, this creates the need for batteries in the remote terminals. As The Utility Reform Network, Communications Workers of America, and other parties noted in their Opening Comments:

Robust back-up power at remote terminals is crucial for ensuring continuity of legacy ILEC [incumbent local exchange carrier] landline service during power outages. Remote terminals are typically deployed in rural areas, many of which have no wireless service at all, or only limited wireless service that is not available to many customers. In these areas, including many locations that are in Tier 2 or Tier 3 high fire threat areas, the remote terminals are essential for providing emergency alerts and access to 9-1-1 and 2-1-1 service. Remote terminals provide a termination point for copper loops coming from homes and businesses, that are then combined and transported via a high capacity line to the telephone company central office. If a remote terminal loses power during an outage, phone service for the customers served by the terminal will not function.

There is evidence that power failures at remote terminals caused landline service to fail in high fire threat areas during the October, 2019 PSPS events.

(August 12, 2020 Opening Comments of The Utility Reform Network, Access Humboldt, Communications Workers of America, *et al.*, at 8-9 (footnote citations omitted).)

service provided over those facilities.⁴⁴ The Commission's authority, and that of other state agencies acting pursuant to the States' police power, has been upheld repeatedly by both state and federal courts.⁴⁵

The regulatory measures promulgated in this Decision are consumer safeguards intended to protect the health and safety of customers, particularly those encountering wildfires and related public emergencies triggered by historic climate change. Wireline service, especially in areas with high fire danger, provides a function redundant to wireless service, and vice versa, enabling customers to receive warnings about possible dangerous situations. A wildfire growing uncontrollably nearby constitutes a potentially dangerous, indeed, life-threatening, situation.

2.4. The Commission's Authority is Consistent with the Emergency Services Act

Contrary to AT&T's arguments in this proceeding, the Commission's authority to adopt backup power rules set forth here, does not infringe on the authority the Legislature gave to the Governor and CalOES under the California Emergency Services Act (ESA).⁴⁶ None of the requirements adopted in this

⁴⁴ We note that pursuant to Section 709, the Legislature has encouraged the Commission to promote advanced telecommunications services, encourage development and deployment of new technologies, and to "assist in bridging the 'digital divide' by encouraging expanded access to state-of-the-art technologies for rural, inner-city, low-income, and disabled Californians."

⁴⁵ Consumer protection and safety statutes are sometimes referred to as public welfare or police power laws, as they involve protection of the public at large. (*Cf. Investigation on the Commission's own motion into ... Communication Telesystems [CTS]*, D.97-10-063 (1997) 1997 Cal. PUC LEXIS 912 at *10-11, *16, and Conclusion of Law 6 (slamming of long distance customers); see also D.97-05-089, 1997 Cal. PUC LEXIS 447 at *39-40; see also *Donald v. Cafe Royale, Inc.* (1990) 218 CA3d 168, 180 (failure to provide wheelchair access in restaurant); *Drewry v. Welch* (1965) 236 CA2d 159, 175-76 (trespass in removing timber), discussed in D.97-10-063, 1997 LEXIS 912 at *11).

⁴⁶ Opposition to Cal Advocates Motion for an Immediate Order at 42-51, June 19, 2019, R.18-03-011. See also AT&T Comments on Assigned Commissioner and Administrative Law

decision interfere with or impede the Governor's or CalOES's emergency powers. Rather, the backup power rules we adopt in this decision are measures promoting consumer protection, and public health and safety, all of which fall squarely within the Commission's jurisdiction. Further, the requirements adopted in this decision are part of the Commission's overall emergency disaster relief program for communications customers. These requirements fulfill a critical need not covered by any specific ESA provision, and therefore, no express or implied conflict exists. The rules adopted today are necessary to address a critical public safety need for telephone corporations to provide continuity of service during a power outage for the "safety, health, comfort, and convenience" of the people of California, as Sections 451 and 2896 require.

3. Proposal Summary

The Proposal⁴⁷ makes recommendations addressing Phase II issues to ensure a resilient and dependable communications network that aids first responders and protects customer communications service in the State of California. The Proposal presents the following recommendations for actions to facilitate a resilient and dependable communications network:

- Applicability of Requirements: The Proposal recommends that any communications provider resiliency requirements should either be: (1) applicable to all companies owning, operating, or otherwise responsible for infrastructure that provides or otherwise carries 9-1-1, voice, text messages, or data; or (2) applicable to the categories we adopted in D.19-08-025 (1) facilities-based and non-facilities-based landline providers includ[ing] 9-1-1/E9-1-1 providers, LifeLine providers, providers of Voice Over Internet

Judge's Ruling Requesting Comments on Wireline Provider Resiliency Strategies at 3, fn. 11, August 12, 2012.

⁴⁷ Assigned Commissioner Ruling and Proposal, March 6, 2020.

- Protocol [VoIP], Carriers of Last Resort [COLRs], and other landline providers that do not fall into the aforementioned groups; (2) wireless providers includ[ing] those that provide access to E9-1-1 and/or LifeLine services; (2A) facilities-based wireless providers; and (2B) non-facilities-based wireless providers, includ[ing] resellers and mobile virtual network operators [MVNOs].⁴⁸
- Definition of Resiliency: The Proposal defines resiliency as the ability to recover from or adjust easily to adversity or change and is achieved by communications providers through utilizing a variety of strategies.⁴⁹ The proposal lists an array of strategies and provides definitions for each one.⁵⁰
 - Backup Power Requirement: The Proposal recommends that all communications providers have: on-site emergency backup power to support all essential communications equipment including but not limited to, switching centers, central offices, wire centers, head ends, network nodes, field cabinets, remote terminals, and cellular sites (or their functional equivalents) necessary to maintain service for a minimum of 72-hours immediately following a power outage.⁵¹ Service must be sufficient to maintain access for all customers to 9-1-1 service, to receive emergency notifications, and to access internet browsing for emergency notices.⁵²
 - Backup Power Plans: The Proposal recommends that communications providers file a Backup Power Plan with the Commission six months from the effective date of an adopted Commission decision with an array of requirements that illustrate the communications provider's

⁴⁸ D.19-8-025 at 4.

⁴⁹ Proposal at 3.

⁵⁰ *Id.*

⁵¹ *Id.*

⁵² *Id.*

preparedness to ensure 9-1-1 access, ability to receive emergency notifications, and access internet browsing for 100 percent of customers in the event of an electric grid outage.⁵³

- Clean Energy Generation: The Proposal directs communications providers to utilize clean energy backup power options as reasonable before using diesel generators to meet the backup power requirement, among other provisions.⁵⁴
- Waivers: The Proposal directs communications providers to submit waivers if they qualify for any of the exemptions enumerated in the Proposal.⁵⁵
- Critical Facility Location Information Sharing: The Proposal directs communications providers to share critical facility location information to emergency responders to enhance the ability to defend vital facilities against wildfire damage and ensure facility redundancy.⁵⁶
- Critical Infrastructure Resiliency, Hardening and Location Information Sharing: The Proposal directs communications providers to annually submit geographic information system (GIS) information with the specific location of network facilities and backhaul routes to the Commission. The Proposal directs Commission staff to analyze and process this information, so it is accessible to state and local emergency responders, subject to confidentiality requirements.⁵⁷
- Emergency Operations Plans: The Proposal directs communications providers to file emergency operations plans with the Commission, discussing how their

⁵³ *Id.* at 3-4.

⁵⁴ *Id.* at 4.

⁵⁵ *Id.*

⁵⁶ *Id.* at 5.

⁵⁷ *Id.* at 5-6.

operations are prepared to respond to emergencies.⁵⁸ The Proposal itemizes required content that the communications providers must submit to the Commission.

In addition, the Proposal requires all respondent communications providers to prepare a report of what mitigation efforts they are undertaking to ensure continuity of service in preparation and in advance of the upcoming wildfire seasons and electric grid outages.⁵⁹

3.1. Parties' Response to Proposal

On April 3, 2020, the following parties filed comments in response to the Proposal: (1) Access Humboldt and The Utility Reform Network (TURN)-together Joint Consumers; (2) Assurance Wireless USA, L.P., Sprint Communications Company L.P. d/b/a Sprint, Sprint Spectrum L.P. (Sprint); (3) AT&T Mobility LLC (New Cingular Wireless PCS, LLC, Pacific Bell Telephone Company, AT&T Corp., Santa Barbara Cellular Systems, Ltd., Teleport Communications America, LLC, AT&T Mobility Wireless Operations Holdings, Inc. (AT&T Wireless); (4) Public Advocates Office (Cal Advocates); (5) California Cable and Telecommunications Association (CCTA); (6) California Water Association (CA Water Association); (7) Cellco Partnership, MCIMetro Access Transmission Service Corp. (Verizon); (8) Charter Communications, Inc. (Charter); (9) City of San Jose (San Jose); (10) Comcast Phone of California, LLC (Comcast Phone); (11) Communications Workers of America District 9 (Communications Workers); (12) Consolidated Communications of California Company (Consolidated); (13) County of Santa Clara (Santa Clara County); (14) Cox California Telcom, LLC (Cox); (15) CTIA; (16) ExteNet Systems

⁵⁸ *Id.* at 6-7.

⁵⁹ Assigned Commissioner's Ruling and Proposal, March 6, 2020.

(California) LLC (ExteNet); (17) Frontier California, Inc., Frontier Communications of California, Frontier Communications of the Southwest, Inc. (Frontier); (18) T-Mobile West LLC (T-Mobile); (19) Pinnacles Telephone Co., Calaveras Telephone Company, Foresthill Telephone Co., Volcano Telephone Company, Happy Valley Telephone Company, Hornitos Telephone Company, Kerman Telephone Co., Ducor Telephone Company, The Siskiyou Telephone Company, Winterhaven Telephone Company, The Ponderosa Telephone Co., Cal-Ore Telephone Co., Sierra Telephone Company, Inc. (Small LECs); (20) U.S. Cellular; (21) Wireless Infrastructure Association (WIA); and (22) Southern California Edison Company (SCE).

On April 17, 2020, the following parties filed reply comments in response to the Proposal: (1) AT&T Wireless; (2) Cal Advocates; (3) California Hydrogen Business Council (CHBC); (4) Center for Accessible Technology and National Consumer Law Center (CforAT & NCLC); (5) Charter; (6) Comcast; (7) Cox; (8) CTIA; (9) Greenlining Institute (Greenlining); (10) National Fuel Cell Research Center (NFCRC); (11) Small LECs; (12) T-Mobile; (13) TURN; (14) UCAN; and (15) Verizon.

4. Issues Before the Commission

Phase II of this proceeding promotes resiliency planning for communications providers in areas prone to outage events and wildfires, with the goal of establishing rules for communications provider resiliency. With this context in mind, the issues within scope are:⁶⁰

⁶⁰ In each of the above issues, the Commission considers the following elements for key sites and locations: (1) customers with access and functional needs; (2) medical baseline customers; (3) police stations and public safety answering points (PSAPs); (4) fire stations; (5) schools (*e.g.*, educational facilities); (6) water and waste water facilities; (7) community centers; (8) senior centers; and (9) disadvantaged and hard to reach communities.

1. Components of Resiliency: communications providers resiliency and preparedness efforts before, during, and after wildfires, public safety power shutoffs, wildfires, and other disasters to keep communications services available;
 - a. How should resiliency be defined?
 - b. What are the different network configurations that need to be considered?
 - c. What are the components of resiliency and how do they operate together? For example, how do redundancy, temporary facilities and back power work to keep communications operational?
 - d. What are the priorities for the operation of communication facilities in a disaster or outage event?
 - e. What is the minimum baseline/objective for potential rules for communication carriers?
2. Responsiveness to Event-Oriented Information Requests: Engagement and timely responsiveness to requests from first responders across government, including the CalOES and CalFIRE;⁶¹
 - a. What critical information is not being provided to first responders across government, including the CalOES and CalFIRE upon their request?

5. Discussion

For several years, California has experienced major wildfires and PSPS events which have exacerbated the weakness of California's wireline network.

In 2017, 9,270 wildfires burned 1,548,429 acres, damaging or destroying 10,280 structures, and killing 47 people.⁶² The largest fires burned in Northern California during the month of October 2017. One of those fires was the Tubbs

⁶¹ This includes disclosing specific outage information during disasters.

⁶² <https://www.fire.ca.gov/incidents/2017/>

Fire, in Napa, Sonoma, and Lake counties, which was one of the most destructive fires in California history burning 36,807 acres, resulting in 22 deaths. The Thomas Fire burned 281,893 acres in Santa Barbara and Ventura counties and resulted in 23 direct and indirect deaths.

In 2018, 7,948 wildfires burned 1,975,086 acres, damaging or destroying 24,226 structures, and killing 100 people.⁶³ The Camp Fire in Butte County became the most deadly and destructive wildfire in California history, damaging or destroying 18,804 structures and resulting in 85 deaths.⁶⁴ During the same month in 2018, the Woolsey Fire in Southern California burned 96,949 acres and damaged or destroyed 1,643 structures in Ventura County.⁶⁵ The Mendocino Complex fires, consisting of the Ranch and River fires, burned 459,123 acres and damaged or destroyed 281 structures and resulting in 1 fatality.⁶⁶

In 2019, 7,860 wildfires burned 259,823 acres, damaging or destroying 732 structures, and killing 3 people.⁶⁷ The Kincade⁶⁸ and Tick⁶⁹ Fires burned 77,758 acres in Sonoma County, and 4,615 acres in Los Angeles County, respectively.⁷⁰ During the same period the IOUs, such as Pacific Gas and Electric Company (PG&E), implemented public safety power shutoffs (PSPS or de-energization). Customers of communication services, both wireline and

⁶³ <https://www.fire.ca.gov/incidents/2018/>

⁶⁴ <https://www.fire.ca.gov/incidents/2018/11/8/camp-fire/>

⁶⁵ <https://www.fire.ca.gov/incidents/2018/11/8/woolsey-fire/>

⁶⁶ <https://www.fire.ca.gov/incidents/2018/7/27/ranch-fire-mendocino-complex/> and <https://fire.ca.gov/incident/?incident=af30fe23-6cfd-4fd6-b2d9-91648eeae814>

⁶⁷ <https://www.fire.ca.gov/incidents/2019/>

⁶⁸ <https://www.fire.ca.gov/incidents/2019/10/23/kincade-fire/>

⁶⁹ <https://www.fire.ca.gov/incidents/2019/10/24/tick-fire/>

⁷⁰ <https://www.fire.ca.gov/incidents/2019/>

wireless, were unable to send or receive calls due to lack of electric grid power that resulted from the power shutoffs. Individual PSPS events impacted tens of thousands of customers, with the largest PSPS events taking place on October 9-11, and 26-31, 2019.

In 2020, 9,639 wildfires burned more than 4.1 million acres in California, approximately 4 percent of the State's roughly 100 million acres of land, destroying more than 10,000 homes and other structures, and led to at least 31 deaths.⁷¹ In August, unusual weather conditions sent nearly 14,000 bolts of lightning into dry, hot air across Northern California in August ravaging communities up and down California over a period of 72-hours. This 72-hour period in August 2020 alone ignited more than 900 wildfires in August 2020. In October, the Silverado Fire struck Southern California, causing more than 90,000 people in Orange County to evacuate their homes.⁷² Then, in December 2020, the fast-moving Bond Fire spread across Southern California forcing the evacuation of more than 25,000 residents.⁷³ The 2020 wildfires are unrivaled in their speed and breathtaking in their severity.

PG&E, SCE, and San Diego & Electric Company (SDG&E), implemented PSPSs throughout this year for wildfire mitigation.⁷⁴ PG&E initiated the largest 2020 PSPS event from October 25-27, 2020, impacting 345,000 customers across 35 counties.⁷⁵ Amid all this, the State also experienced rolling electric grid

⁷¹ <https://www.fire.ca.gov/incidents/2020/>

⁷² <https://www.fire.ca.gov/incidents/2020/10/26/silverado-fire/>

⁷³ <https://www.fire.ca.gov/incidents/2020/12/2/bond-fire/>

⁷⁴ Commission PSPS Event Details, available at: <https://www.cpuc.ca.gov/PSPS/>

⁷⁵ PG&E PSPS Event Details, October 25-28, 2020 available at: https://www.cpuc.ca.gov/uploadedFiles/CPUCWebsite/Content/News_Room/NewsUpdates/2020/PGE%20Oct%2025-28%202020%20PSPS%20Post%20Event%20Report.pdf.

outages during a once in 35-year heatwave.⁷⁶ Similar to the impacts experienced by wireless carriers' users, the lack of commercial power resulting from the shutoffs also affected wireline carrier users' ability to make phone calls.

California customers need access to 9-1-1 and emergency services, to function in their daily lives and receive vital safety or emergency information. During the 2017, 2018, 2019, and 2020 wildfires and PSPS events, widespread communications outages occurred across all sectors: in the facilities used to provide wireless telephone service, traditional landline telephone service, cable video service, VoIP service, and broadband Internet access service. These service outages expose a lack of sufficient resiliency in wireline networks, a failure to prepare for disasters, and a failure to actively communicate these service outages to the public and emergency responders.

Wireline network resiliency must be improved so that vital communication services are not interrupted and remain available for Californians during emergencies. To effectively manage these catastrophes, emergency responders must have reliable clear communication from the wireline providers regarding network outages, service resiliency, and backup power.

As stated at the prehearing conference in this proceeding⁷⁷ and in the Scoping Memo and Ruling,⁷⁸ the purpose of this phase of the proceeding is to form resiliency rules for communications providers. Below, we establish

⁷⁶ California Independent System Operator Rotating Outages, available at: <http://www.caiso.com/Documents/CAISO-CPUC-CEC-Issue-Preliminary-Report-Causes-August-Rotating-Outages.pdf>

⁷⁷ Order Instituting Rulemaking Regarding Emergency Disaster Relief Program to Support California Residents (R.18-03-011) November 20, 2019 Prehearing Conference Transcript at 130, lines 12-17.

⁷⁸ Assigned Commissioner's Phase II Scoping Memo and Ruling, January 2020.

requirements necessary to ensure dependable wireline networks that aid first responders and allow the public to communicate in a reliable manner during disasters or PSPS events. The rules below are narrowly tailored only to facilities-based wireline providers offering service in California's Tier 2 and Tier 3 High Fire Threat Districts.

5.1. Application of Requirements: Covered Providers

In the Scoping Memo and Ruling, the Assigned Commissioner's Ruling, and subsequent Assigned Commissioner and ALJ Rulings,⁷⁹ we sought comment to identify the most essential communications providers that Californians would rely upon during a disaster or a power outage.

To determine which providers should be covered by our new rules, particularly 9-1-1 receipt of emergency alerts and warnings, and to access evacuation and de-energization websites, we asked the parties whether the Proposal's definition of the applicability of requirements was reasonably tailored to ensure regulatory compliance or in the alternative, whether D.19-08-025's definition should be applied instead.

5.1.1. Parties' Positions

Parties were generally split on whether to adopt the Proposal's definition for applicability of requirements or D.19-08-025. We discuss the parties' positions below.

Comcast argues the Proposal's definition is not reasonably tailored, asserting it exceeds the Commission's authority.⁸⁰ TURN claims that the

⁷⁹ See Assigned Commissioner Scoping Memo and Ruling, January 21, 2020; Assigned Commissioner Ruling and Proposal, March 6, 2020; and Assigned Commissioner and ALJ Ruling, July 22, 2020.

⁸⁰ Comcast Opening Comments in Response to the Assigned Commissioner's March 6, 2020 Ruling (Opening Comments) at 15.

Proposal rightfully envisions a broad definition of wireline providers to which these requirements would apply.⁸¹ Cox argues we should apply the rules of this decision only to telephone corporations that provide mobile telecommunications services, including cellular backhaul, and telecommunications services for first responders.⁸²

Cal Advocates supports the Commission's applicability of requirements specified in the Proposal. Cal Advocates asserts that D.19-08-025 defined communications service providers to include non-facilities-based providers but the Proposal's requirements apply to communications infrastructure.⁸³ Thus, Cal Advocates argues that since the Proposal's requirements apply to communications infrastructure the non-facilities-based communications providers that do not own or operate infrastructure should not be included in these requirements.⁸⁴ CCTA contends that neither the definition set forth in the Proposal nor the definition set forth in D.19-08-025, except for carriers of last resort and rate of return telephone corporations, should apply.⁸⁵

Frontier asserts that the applicability statement in the Proposal is generally reasonable insofar as it focuses on ownership or operation of infrastructure rather than on specific services.⁸⁶ RCRC claims that the proposed definition in the Proposal is more straightforward and understandable than the definition

⁸¹ TURN Opening Comments at 1-2.

⁸² Cox Opening Comments at 6.

⁸³ Cal Advocates Opening Comments at 2.

⁸⁴ *Id.*

⁸⁵ CCTA at 6.

⁸⁶ Frontier Opening Comments at 2.

from D.19-08-025.⁸⁷ By using plain language and clearly articulating its intent, RCRC asserts the Proposal more clearly achieves the desired outcomes of the Commission.⁸⁸

Charter argues that the basic framework of the Proposal addressing resiliency is misplaced because it improperly: (1) shifts obligations to communications providers that should rightly be borne by electric utilities; (2) fails to consider the magnitude of the risks, costs, and impracticalities of the requirements it contemplates for wireline facilities and providers; (3) fails to consider the limited (if any) public safety benefits that the requirements would realize as applied to wireline facilities; (4) fails to perform the necessary cost-benefit analysis to weigh these considerations against one another; and (5) extends public utility obligations to broadband internet access service and VoIP facilities, which it asserts the Commission does not have legal authority over.⁸⁹

Small LECS generally support the Proposal's definition but assert there will need to be exemptions from specific requirements for smaller providers, such as real-time web-based access to outage information.⁹⁰

Consolidated supports the Proposal's definition but notes that waivers to particular requirements may be warranted in certain circumstances.⁹¹

⁸⁷ RCRC Opening Comments at 5.

⁸⁸ *Id.*

⁸⁹ Charter Opening Comments at 5.

⁹⁰ Small LECs Opening Comments at 2.

⁹¹ Consolidated Opening Comments at 1.

5.1.2. Facilities-Based Wireline Providers are Subject to this Decision's Applicability Requirements

The Proposal recommends that we subject all companies owning, operating, or otherwise responsible for the infrastructure that provides or otherwise carry 9-1-1, voice, text messages, or data services to the requirements of this decision. We agree with Cal Advocates that this applicability definition is more appropriate in this context than the definition we previously adopted in D.19-08-025.⁹² Therefore, the rules of this decision apply to facilities-based wireline providers.

Facilities-based wireline providers operate infrastructure that is critical to the public's health, safety, and welfare. The resiliency rules formed under this decision are focused on wireline infrastructure to ensure the State's first responders and the public have access to 9-1-1, access to emergency alerts, warnings, and notifications, and to provide access to web-based instructions and GIS maps. Access to this information is crucial during emergencies and evacuations.

5.2. Resiliency Definition

In the Scoping Memo and Ruling, the Assigned Commissioner's Ruling, and subsequent Assigned Commissioner and ALJ Rulings,⁹³ we sought comment on a clear definition for the term "resiliency." The Proposal defined resiliency as the ability to recover from or adjust easily to adversity or change. Under the Proposal, wireline providers would achieve resiliency through a variety of

⁹² Cal Advocates Opening Comments at 2.

⁹³ See Assigned Commissioner Scoping Memo and Ruling, January 21, 2020; Assigned Commissioner Ruling and Proposal, March 6, 2020; and Assigned Commissioner and ALJ Ruling, July 22, 2020.

strategies. We discuss the parties' position on the proposed definition of resiliency below.

5.2.1. Parties' Positions

Parties had various positions on the Proposal's definition of resiliency. For example, SCE argues the resiliency strategies for wireline providers are unnecessary.⁹⁴ However, SCE asserts that it generally agrees with the Proposal's definition of resiliency and the strategies the Proposal contemplates.⁹⁵

For its part, RCRC asserts that rural residents should not be treated differently by establishing different expectations for wireline system resiliency as more than a million Californians only subscribe to wireline services.⁹⁶ RCRC asserts that, as in D.20-07-011, wireline providers should be given similarly broad authority to utilize any of a portfolio of options to achieve system resiliency. Those may include backup power, redundancy, system hardening, use of temporary facilities, improved local coordination, and preparedness planning; however, there may be other strategies that are better suited for wireline providers.⁹⁷

Similarly, Cal Advocates argues that we should apply the same resiliency definition from D.20-07-011 to wireline providers⁹⁸ and argues that the strategies are reasonable to ensure essential communications services to all wireline customers.⁹⁹ UCAN also argues that the definition of resiliency should not

⁹⁴ SCE Opening Comments in Response to the Assigned Commissioner and Administrative Law Judge's July 22, 2020 Ruling (Ruling Comments) at 5.

⁹⁵ *Id.*

⁹⁶ RCRC Ruling Comments at 4.

⁹⁷ *Id.*

⁹⁸ Cal Advocates Ruling Comments at 3.

⁹⁹ *Id.*

change as the goal of wireline resiliency should be the same as the wireless resiliency, namely the ability to adjust to adversity and change and the maintenance of critical communication infrastructure during PSPS events.¹⁰⁰

CCTA encourages the Commission to adopt its alternative network resiliency framework for wireline providers asserting it meets our goal of maintaining resiliency and dependable communications networks that aid first responders and the public during disasters.¹⁰¹ Charter argues that the Proposal's definition of resiliency and its strategies prompt no requirement to which the proposal would attach.¹⁰² Similarly, Comcast asserts that the purpose of a formal definition of resiliency is unclear because it does not predicate any specific regulatory obligations or rules.¹⁰³

Cox generally agrees that the definition of resiliency should focus on recovery, but such definition must acknowledge the reality that some interruption of service is unavoidable under certain circumstances.¹⁰⁴ TURN supports the Proposal's definition of resiliency but recommends that we take into account the different needs of the various wireline network configurations.¹⁰⁵

AT&T states that the definition of resiliency from the Proposal and D.20-07-011 is sufficiently flexible to be applied to wireline services but argues

¹⁰⁰ UCAN Ruling Comments at 3.

¹⁰¹ CCTA Ruling Comments at 2.

¹⁰² Charter Ruling Comments at 4.

¹⁰³ Comcast Ruling Comments at 6.

¹⁰⁴ Cox Ruling Comments at 3.

¹⁰⁵ TURN Ruling Comments at 4.

that any resiliency requirements should be focused on the most critical wireline customers.¹⁰⁶

5.2.2. Resiliency is the Ability to Recover from or Adjust to Adversity or Change Through an Array of Strategies

We adopt the Proposal's definition of resiliency, which mirrors D.20-07-011, with modification. Resiliency shall be defined as the ability to recover from or adjust to adversity or change through an array of strategies including, but not limited to, backup power, redundancy, network hardening, temporary facilities, communication and coordination with other utilities, emergency responders, the public and finally, preparedness planning.

Furthermore, we adopt the Proposal's resiliency strategies, with slight modification. The Proposal's definition provides the necessary level of specificity that clearly identifies the specific strategies wireline providers must employ to ensure resiliency. While some strategies may be specific to wireless providers, we find that maintaining a consistent definition for the purposes of this proceeding is beneficial. These definitions also lay a foundation for the other components of the Proposal that is the subject of this decision. We provide the following modified definition of resiliency and resiliency strategies:

- "Resiliency" – the ability to recover from or adjust to adversity or change – is achieved by wireline providers through various strategies intended to ensure that essential services are provided without interruption during power outages and other emergency events, including but not limited to the following:
 - Backup Power: network operators that design their networks with batteries and generators, as well as maintain mobile generators and refueling plans, make

¹⁰⁶ AT&T Ruling Comments at 5.

necessary preparations and precautions to safely operate generators, are able to maintain service during the loss of power;

- Redundancy: networks that are designed with redundancy – both wired (*e.g.*, logical and physical route diversity) or wireless (*e.g.*, dense and overlapping cell sites) – are able to mitigate impacts caused by disasters and power outages;
- Hardening: networks that are hardened can withstand damage from disasters. For example, ensuring that backhaul and critical sites have defensible space and are built to withstand natural disasters, including earthquakes;
- Temporary Facilities: network operators that own and maintain temporary facilities (*e.g.*, mobile cell sites, mobile satellite and microwave backhaul, etc.) are able to restore service to their networks when facilities are damaged or destroyed;
- Communication and Coordination: network operators that establish clear channels of communication and coordinate with *emergency responders at the local, state and federal level, CalOES, CAL FIRE, the Commission, other utilities (including electric utilities, community choice aggregators, water, wastewater and other communications providers)* and the public are best positioned to maintain and restore service after a power outage or disaster; and
- Preparedness Planning: network operators that maintain comprehensive preparedness plans and qualified staff are able to maintain and restore service to their networks quickly and effectively.

These resiliency strategies are not an exhaustive list. The wireline providers have the discretion to deploy more approaches as both the public and private sectors evolve and develop new measures for emergency preparedness.

We reject claims that these definitions are unnecessary, duplicative, fail to keep in mind the constraints of the existing wireline network, or as Comcast and Charter argue, not keyed to any regulatory obligations.¹⁰⁷ By adopting these definitions, resiliency strategies must not only prevent, avoid, or stop a threat or actual harm from a potential disaster but also account for an array of recoverability measures that focus on timely restoration, strengthening, and revitalizing wireline network infrastructure to preserve the fabric of communities affected by an incident. We also acknowledge, and agree with Cox,¹⁰⁸ that these measures are not foolproof – that no matter how many strategies are employed, sometimes, because of their scale, disasters will cause severe service disruption. We encourage the wireline providers to adopt these strategies as part of a resiliency approach that will be captured in their regulatory filings, discussed below.

The wireline providers - in coordination with emergency responders and each level of government - have a responsibility to prepare and leverage technologies to mitigate and prevent the disruption of service. We agree with Cal Advocates that even though it will take time, the wireline providers should strive toward immediate recovery from disruption of their network and minimize the likelihood of outages to end users. Regrettably, the infrastructure investments for wireline network resiliency cannot be made overnight.

In adopting the above resiliency definitions, we establish core strategies that serve as both preparedness tools and a means of structured implementation for future wildfire, PSPS, and other disaster events. The preparedness of the

¹⁰⁷ Charter Ruling Comments at 4; Comcast Ruling Comments at 6.

¹⁰⁸ Cox Ruling Comments at 4

wireline providers is fundamental to ensuring the State's mitigation and recovery success in future disasters. We decline to adopt a rigid definition of resiliency that could result in limiting wireline providers in how they achieve and maintain their network's resiliency. Rather, these definitions reflect encouraged strategies that various wireline providers already utilize and have led to the successful preservation or restoration of service during times of crisis, such that they can be used and adopted by all wireline providers. We encourage the wireline providers to adopt additional resiliency strategies, to augment these strategies and enhance their ability to prepare for and be responsive to the needs of network enhancement.

In summary, we all must continue to make progress in building and sustaining disaster relief and emergency preparedness. The rules we adopt here build on our goals to achieve preparedness and resiliency in the face of future disasters. Our aspirations must be even higher to match the greater risks that the future presents with an increasingly severe climate, expected to result in harsher wildfire events and more frequent PSPS events. We must continue to evolve to meet these challenges while at the same time, come to an understanding that the execution of baseline resiliency strategies must begin now.

5.3. Outage Definition

In the Scoping Memo and Ruling, the Assigned Commissioner's Ruling, and subsequent Assigned Commissioner and ALJ Rulings,¹⁰⁹ we sought comment to craft a clear definition for the term, "outage," in the context of this

¹⁰⁹ See Assigned Commissioner Scoping Memo and Ruling, January 21, 2020; Assigned Commissioner Ruling and Proposal, March 6, 2020; and Assigned Commissioner and ALJ Ruling, July 22, 2020.

proceeding. We discuss the parties' position on the proposed definition of outage below.

5.3.1. Parties' Positions

Parties provided an array of suggestions to define outage. Cal Advocates suggests "outage" should align with the Federal Communication Commission's (FCC) definition of "outage"¹¹⁰ while RCRC¹¹¹ recommends that we adopt the same definition for an outage as CalOES to better assure consistency, reduce costs, and reduce confusion of adhering to inconsistent regulatory mandates.

5.3.2. Outage Shall Be Defined as a Period That a Generating Unit, Transmission Line, or Other Facility is Out of Service

We agree with RCRC that it is appropriate to adopt CalOES' definition of an outage, as developed pursuant to Section 53122 of the California Government Code, to better assure consistency across agencies, and to reduce both costs and confusion in adhering to inconsistent regulatory mandates. We adopt the following definition of an outage, in the context of this proceeding: a power outage is the period during which an energy-generating unit, power transmission line, or other facility is out of service. Furthermore, we determine that a power outage may have various causes including, but not limited to, de-energization events, unanticipated problems rendering a facility dysfunctional or posing a risk to personnel or to the system, or scheduled downtime for maintenance, repairs, or upgrades.

¹¹⁰ Cal Advocates Ruling Comments at 7-8.

¹¹¹ RCRC Ruling Comments at 8-9.

5.4. Backup Power Requirement

In the Scoping Memo and Ruling, the Assigned Commissioner's Ruling, and subsequent Assigned Commissioner and ALJ Rulings,¹¹² we sought comment to help identify the most reasonable approach for ensuring that Californians and first responders have continuity of service and access to 9-1-1, emergency alerts, and notifications during disasters or electric grid power outages. We asked parties to assess the reasonableness of requiring wireline providers to have 72-hours of on-site backup power, to provide a minimum level of service.

5.4.1. Parties Positions

UCAN states that the question with wireless versus wireline backup power requirements is just how deep "into the neighborhood" wireline back-up power requirements should reach.¹¹³ They assert, for example, it may be unreasonable to impose on the provider a 72-hour backup power requirement on equipment located on a customer's premises.¹¹⁴ UCAN did not offer a specific line of demarcation as to just how far the backup power requirement should reach into the wireline phone system. However, UCAN did recommend that, at a minimum, the backup power strategy should be largely analogous to that imposed on wireless services providers in scope.¹¹⁵

SCE asserts that a flat 72-hour time duration may be reasonable for a wireless provider because each of their sites serves hundreds of individuals with

¹¹² See Assigned Commissioner Scoping Memo and Ruling, January 21, 2020; Assigned Commissioner Ruling and Proposal, March 6, 2002; and Assigned Commissioner and ALJ Ruling, July 22, 2020.

¹¹³ UCAN Ruling Comments at 3-4.

¹¹⁴ *Id.*

¹¹⁵ *Id.*

basic telecommunications services, but it is not reasonable for CLECs since backup power is at the customer's discretion.¹¹⁶ However, SCE argues it is reasonable to adopt a backup power requirement of reduced duration – less than 72-hours – as there are other resiliency strategies that may be reasonably deployed.¹¹⁷

CCTA argues that a 72-hour backup power mandate would provide very limited benefits and squander enormous network resources given that very few consumers have backup power sources for in-home equipment required to access wireline services.¹¹⁸ Previously, CCTA proposed an alternative resiliency framework for wireline networks that would help ensure uninterrupted service to meet a community's most critical communications needs during extended power outages.¹¹⁹

Charter argues that the Commission should not apply the backup power or service level requirements from D.20-07-011 to wireline broadband or VoIP services because the Commission lacks the legal authority to do so and there are numerous practical barriers, including siting and permitting obstacles, community objections, safety risks, and pollution.¹²⁰

Cal Advocates argues we should adopt a 72-hour backup power requirement to ensure customers and their families are able to access essential voice and broadband services during power outages.¹²¹ Cal Advocates asserts

¹¹⁶ SCE Ruling Comments at 6.

¹¹⁷ *Id.* at 7.

¹¹⁸ CCTA Ruling Comments at 2.

¹¹⁹ *Id.* at 3.

¹²⁰ Charter Ruling Comments at 4.

¹²¹ Cal Advocates Ruling Comments at 4.

that even though 80 percent of all calls to 9-1-1 in 2018 came from wireless devices, the remaining 20 percent of 9-1-1 calls coming from wireline networks is still a very significant number of emergency calls that originate from wireline networks.¹²² Cal Advocates also states that wireline outages were widespread and significant during 2019's PSPS events, with over 400,000 wireline subscribers in California losing service on October 28, 2019.¹²³

AT&T argues it is infeasible to impose a 72-hour backup power requirement on all wireline services because of the distributed nature of its wireline network.¹²⁴ AT&T also states that a 72-hour backup power mandate would cause negative impacts on California communities as municipalities are unlikely to allow AT&T to deploy large equipment – such as portable generators for recharging batteries – extensively throughout the public rights of way, especially if generators are required to remain running for as long as 3 days.¹²⁵ AT&T also claims a 72-hour backup power requirement would have little benefit as the vast majority of Californians do not rely on wireline services for emergency communications.¹²⁶

Joint Consumers argue that the backup power requirement for wireline providers should be the same 72-hour duration that was previously adopted for wireless carriers, and should apply to critical network locations serving high fire risk areas.¹²⁷ At the same time, Joint Consumers state that limited access to

¹²² *Id.*

¹²³ *Id.*

¹²⁴ AT&T Ruling Comments at 5-6.

¹²⁵ *Id.* at 7.

¹²⁶ *Id.* at 8.

¹²⁷ Joint Consumers Ruling Comments at 5.

backup power in customers' homes does not undermine the need for wireline backup power, but does indicate the need for the Commission to revisit requirements for battery backup power in the customer premises, in addition to network backup power requirements.¹²⁸

Cox argues that we should not adopt a 72-hour mandated backup power requirement because it is not feasible given the sheer number of power supplies in a wireline network, and the location of these power supplies which can be deep in residential neighborhoods.¹²⁹ However, Cox states it is supportive of the Commission's efforts to develop a framework to ensure critical facilities, first responder hubs and stations, and wireless communications are able to operate to the fullest extent possible during an outage.¹³⁰ Cox asserts that a backup power requirement is reasonable to the extent that the requirement applies to maintaining the connectivity of customers that are wireless carriers, fire stations, police stations, hospitals, and emergency command centers.¹³¹

Comcast states that a 72-hour backup power requirement is untenable for wireline providers.¹³² Comcast argues that a 72-hour backup power mandate for wireline providers is arbitrary, overbroad in scope, impracticable, unsafe, and unhealthy for consumers and communities, does more harm than good, and ultimately is ineffective and legally impermissible.¹³³ Comcast asserts that the challenges for deploying 72 hours of backup power are greater than that of the

¹²⁸ *Id.*

¹²⁹ Cox Ruling Comments at 5.

¹³⁰ *Id.*

¹³¹ *Id.*

¹³² Comcast Ruling Comments at 8.

¹³³ *Id.*

wireless providers¹³⁴ because of the distributed nature of the wireline infrastructure.

CA Water Association supports a 72-hour backup power requirement to match the requirement for wireless providers.¹³⁵ CA Water Association also argues that we should not adopt a reduced backup power requirement as water providers are required to maintain operations regardless of power outage duration, and the need for maintenance of communication systems does not diminish over the duration of a power outage.¹³⁶

CSAC supports a backup power mandate, asserting that numerous communities within California do not have sufficient wireless coverage and are limited in how they receive emergency communications.¹³⁷ CSAC states that wireline services may be the only way these communities can be alerted of emergencies, including electric grid outage events.¹³⁸

Finally, RCRC argues that at a minimum, wireline providers should be subject to the same backup power requirements that were established for wireless providers in D.20-07-011.¹³⁹ RCRC states that it may be necessary to expand both the duration and the geographic territory covered by this requirement and backup power must be sufficient to access 9-1-1 emergency service, emergency notifications, and access to web browsing for emergency

¹³⁴ *Id.*

¹³⁵ CA Water Association Ruling Comments at 1.

¹³⁶ *Id.* at 2.

¹³⁷ CSAS Reply Comments to the Assigned Commissioner's March 6, 2020 Ruling (Ruling Reply Comments) at 1.

¹³⁸ *Id.* at 2.

¹³⁹ RCRC Ruling Comments at 4.

notices for all customers.¹⁴⁰ RCRC also contends that, for many communities, the 2019 PSPS events went far longer than 72 hours before service was fully restored.¹⁴¹ RCRC underscores that it is inappropriate and unacceptable for 9-1-1 or emergency notification services to go dark for any period of time, especially in rural and high fire risk areas during the wildfire season.¹⁴²

5.4.2. There is a Public Need to Adopt a Narrowly Tailored and Reasonable Backup Power Requirement

Section 451 requires us to exercise our authority so that customers receive safe and reliable service at just and reasonable rates. Today, we form rules, based on a record developed following numerous catastrophes, that move from public frustration and anxiety toward measurable, prophylactic action. This action fulfills our statutory duty and responsibility to protect customers and first responders during times of crisis by promoting their health, safety, and welfare.

With this in mind, we recognize that both customers and first responders have a reasonable expectation they will hear a dial tone, receive emergency alerts and notifications, and can access critical information during an emergency – even when the power is out. Because of climate change, wildfires and PPS events increasingly will be part of our future, with PPS events possibly continuing through the next 10 years.¹⁴³

To contextualize the need for backup power, the 2017, 2018, 2019, and 2020 wildfires and the 2019 and 2020 PPS events had some of the greatest impacts on

¹⁴⁰ *Id.* at 5.

¹⁴¹ *Id.*

¹⁴² *Id.*

¹⁴³ Pacific Gas and Electric Company 2020 Wildfire Mitigation Plan Report Updated Rulemaking 18-10-007, at 4-27 (Feb. 28, 2020).

Californians in our history. Their scale and scope disrupted our personal lives, civic responsibilities, and California's economy. During these outages, calls, internet communications, and emergency notifications failed. Energy and water utilities, customers, and first responders across all levels of government expressed public safety concern regarding the failure of wireline providers to adequately provide service, including access to 9-1-1, during both disasters and de-energization events.

During the November 1, 2018 joint Commission-CalOES workshop, California's first responders voiced the importance of maintaining communications service. The Director of CalOES said, "maintaining our telecommunications capability in disasters is an absolute necessity for effective response in recovery operations."¹⁴⁴

After carefully reviewing the information and considering our duty under our California constitutional and statutory authority codified under the Public Utilities Code, it is reasonable to adopt a backup power requirement for the wireline providers operating in California.

We must be prepared to meet the adversity of future disasters with emergency management preparedness across government but also, in partnership, with California's wireline providers. Throughout this proceeding, we gained knowledge, discussed arguments, collected data, facts, and witnessed in real-time millions of Californians lose service communication services during mass wildfires and PSPS events.

¹⁴⁴ Order Instituting Rulemaking Regarding Emergency Disaster Relief Program to Support California Residents November 20, 2019 Prehearing Conference Transcript at 14-15, lines 24 – 28.

We disagree with the wireline providers' position that because there are fewer wireline subscribers when compared to wireless subscribers it is not in the public interest to adopt a backup power requirement for wireline services. Indeed, there are about 43 million wireless phone subscriptions in the State, and approximately 13 million wireline traditional voice and VoIP subscriptions.¹⁴⁵ However, in a state with millions of households,¹⁴⁶ wireline voice services are still prominent in California households. As previously stated, 80 percent of 9-1-1 calls are delivered over wireless phones; however, that still leaves a sizeable amount of 9-1-1 calls that are delivered over wireline networks. Put another way, 1 out of every 5 9-1-1 calls in California are delivered over wireline networks. An estimated 5.9 percent of California households do not use wireless services, and 3.3 percent rely exclusively on wireline service.¹⁴⁷ These may be a minority of Californians, but they cannot be overlooked. The redundancy that having both wireless and wireline networks operational provide is of mission critical importance for both emergency preparedness and disaster relief. Every user of any communication service provided over the facilities of wireline providers has a reasonable expectation that their communications service will always be functional, especially when they need it most.

To place into context the importance of reliable wireline communications services for the protection of life and the public's safety, we highlight an event in

¹⁴⁵ Aggregated information using Form 477 data as of December 2018 - see "State-Level Subscriptions" (https://www.fcc.gov/sites/default/files/vts_state_table_1_1.xlsx) at <https://www.fcc.gov/voice-telephone-services-report>.

¹⁴⁶ <https://www.census.gov/quickfacts/CA>

¹⁴⁷ AT&T opening Comments at 1.

Marin County.¹⁴⁸ On October 26, 2020, during one of the largest PSPS events of 2020, a housefire took the life of a 96-year-old woman and left another person injured.¹⁴⁹ Community members could not immediately reach 9-1-1 for help due to a lack of resilient and reliable wireline service and the lack of sufficient wireless service.¹⁵⁰ This event illustrates how individual lives and communities are devastated when communications services fail. We would neglect to fulfill our statutory duty if we did not address the failings of wireline networks during wildfires and PSPS events. These failures are recurring themes and conditions that merit our attention to adopt a backup power requirement.

5.4.3. Parties Positions: Backup Power Time Duration

RCRC argues that unless wireline networks can maintain minimum service levels without backup power for at least 72 hours during a power outage, RCRC does not support reducing backup power duration below 72 hours.¹⁵¹ RCRC asserts that such a reduction could undermine overall system resiliency.

UCAN argues that a backup power time requirement should be largely analogous to the requirements imposed on the wireless providers in scope.¹⁵²

¹⁴⁸ We do not rely on this press coverage for the purposes of this decision, but raise this here to highlight the significant public interest in reliable wireline services during disasters.

¹⁴⁹ See *Structure Fire in Marin County Leaves 1 Dead, 1 Injured*, NBC Bay Area, October 26, 2020; see also *Deadly Fire in Sleepy Hollow Raises Cell Coverage Concerns*, Marin Independent Journal, October 26, 2020.

¹⁵⁰ See *Structure Fire in Marin County Leaves 1 Dead, 1 Injured*, NBC Bay Area, October 26, 2020; see also *Deadly Fire in Sleepy Hollow Raises Cell Coverage Concerns*, Marin Independent Journal, October 26, 2020.

¹⁵¹ RCRC Ruling Comments at 5.

¹⁵² UCAN Ruling Comments at 4.

SCE supports a backup power requirement of reduced duration – less than 72 hours – arguing there are other resiliency strategies that may be reasonably deployed to maintain service.¹⁵³

Charter asserts that reducing the duration of the backup power requirement in D.20-07-011 – *e.g.*, to 24 hours rather than 72 – would be less practically unreasonable.¹⁵⁴ Yet Charter asserts that such a requirement would still present many of the same legal and practical barriers as the 72-hour backup power requirement.¹⁵⁵

Cox argues that the Commission should not adopt 72 hours as a time requirement for backup power because it is not feasible given the sheer number of power supplies in the wireline network and location of power supplies, which can be deep in residential neighborhoods.¹⁵⁶

TURN¹⁵⁷ and Cal Advocates support 72 hours as a reasonable backup power time duration.¹⁵⁸ Cal Advocates supports applying the same requirements of D.20-07-011 onto the wireline providers.¹⁵⁹

AT&T does not support a 72-hour backup power requirement on all wireline services. AT&T argues that such a requirement is unnecessary, excessively burdensome, and impracticable.¹⁶⁰

¹⁵³ SCE Ruling Comments at 7.

¹⁵⁴ Charter Ruling Comments at 2.

¹⁵⁵ *Id.*

¹⁵⁶ Cox Ruling Comments at 4-5.

¹⁵⁷ TURN Ruling Comments at 5.

¹⁵⁸ Cal Advocates Ruling Comments at 2.

¹⁵⁹ *Id.*

¹⁶⁰ AT&T Ruling Comments at 5.

Comcast argues that a 72-hour time requirement for backup power for wireline providers is arbitrary, overbroad in scope, impracticable, unsafe and unhealthy for consumers and communities, does more harm than good, and would ultimately be ineffective and legally impermissible.¹⁶¹ Comcast asserts the challenges to install 72 hours of backup power are far larger than for wireless providers.¹⁶²

CA Water Association supports a 72-hour time duration for a wireline backup power requirement because water service providers have been subject to power outages that last longer than 72 hours during a grid outage event.¹⁶³ CA Water Association argues that the Commission should not adopt a reduced time duration for wireline providers.¹⁶⁴

5.4.4. 72 Hours of Backup Power, with Flexible Procurement and Deployment, is a Reasonable Duration of Time to Fulfill the Backup Power Requirement

Section 451 requires us to exercise our authority so that customers receive safe and reliable service at just and reasonable rates. As we have seen, wireline service plays an essential role in the delivery of public safety services, particularly access to 9-1-1.

Duration of Backup Power Requirement: The Proposal recommends that all wireline providers have on-site, emergency backup power to support all essential communications equipment to maintain minimum service of 72 hours immediately following an electric grid outage event.

¹⁶¹ Comcast Ruling Comments at 8.

¹⁶² *Id.*

¹⁶³ CA Water Association at 2.

¹⁶⁴ *Id.*

Generally, the wireline providers oppose this requirement while consumer groups and local governments support such a requirement. We discuss their positions below, but we first note that, we believe it is reasonable to adopt a 72-hour backup requirement for the wireline providers' facilities located in Tier 2 and Tier 3 High Fire Threat Districts. We must ensure that California's wireline customers have access to communications services during disasters or power outages, can receive emergency alerts and notifications, and access the internet for critical information during times of crisis.

Ensuring the ability to maintain service is central to our statutory duty to ensure safe and reliable service.¹⁶⁵ We direct the wireline providers to have emergency backup power for a minimum of 72 hours in Tier 2 and Tier 3 High Fire Threat Districts – as discussed below - immediately following an electric grid outage to support all essential communications equipment and minimum service levels for the public.

72 hours of backup power immediately following a disaster or de-energization event for the wireline providers' networks is sufficient to meet public need. The public has an expectation that they will hear a dial tone on their devices, receive emergency alerts and notifications, and have access to critical information during an emergency – especially when the power is out. To be sure, Californians are relying on wireline networks that support voice and internet service to attend school through distance learning, conduct work-from-home, take telehealth appointments, and for public safety during emergencies. During the Covid-19 pandemic, the reliance on internet connection has intensified. Additionally, we found in D.20-07-011 that 80 percent of all calls to

¹⁶⁵ See Section 451.

9-1-1 during the 2017 and 2018 wildfires came from wireless devices;¹⁶⁶ therefore, the remaining 20 percent came from wireline networks. This is still a significant number of emergency calls originating from the wireline network. Leaving these Californians without any communications service during an extended outage or wildfire is unacceptable.

We agree with Cal Advocates that wireline outages were widespread and significant during 2019. On October 28, 2019, over 400,000 wireline subscribers in California lost their communication service.¹⁶⁷ Cal Advocates states that the FCC Disaster Information Reporting System found that “cable and wireline companies reported 454,722 (up from 393,735) subscribers out of service due to the power shutoffs; this may include the loss of telephone, television, and/or internet service.”¹⁶⁸ 72 hours of backup power is needed because the wireline providers are not, on their own, ensuring their networks are operating during a power outage to support the community’s continuity of services.

Further, as Cal Advocates points out, this backup power standard is not new to wireline providers, as wireline networks that serve Public Safety Answering Points are required by the FCC to have backup power.¹⁶⁹ Specifically, if a “central office hosts a selective router,” 72 hours of backup power is required.¹⁷⁰ This requirement was adopted to maintain the resiliency and reliability of the 9-1-1 system.

¹⁶⁶ D.20-07-011 Finding of Fact 4 at 123.

¹⁶⁷ Cal Advocates Ruling Comments at 4.

¹⁶⁸ *Id.* at 4-5.

¹⁶⁹ *Id.*

¹⁷⁰ *Id.*

Cal Advocates persuasively demonstrates on record that Comcast and Frontier were not prepared during the 2019 PSPS events. Cal Advocates reports that Comcast lost power at several facilities resulting in service outages that affected a disproportionate number of facilities.¹⁷¹ Cal Advocates also reports that a significant number of Frontier's remote terminals do not have generators for backup power and are thus, unable to maintain service for 72 hours or any other amount of time in the event of a power outage.¹⁷²

Further, the Commission has reviewed the backup power currently deployed at wireline facilities in Tier 2 and Tier 3 High Fire Threat Districts. Our analysis had identified approximately 26,343 wireline-related facilities located in Tier 2 and 3 High Fire Threat Districts. Approximately 97 percent of wireline facilities (*i.e.*, central offices, headends, hubs, and nodes) in Tier 2 and 3 High Fire Threat Districts have some amount of backup power, with the remaining three percent of facilities either not needing battery back-up power or where the provider lacks information about the duration of battery backup power. For locations with battery backup power, approximately 69 percent of the facilities located in Tier 2 and 3 High Fire Threat Districts have up to 24 hours of backup power, while approximately 31 percent of the facilities have 25 hours of battery backup power or more.

¹⁷¹ *Id.* at 6-7.

¹⁷² *Id.* at 6-7.

Table 1: Availability of Backup Power Using Batteries for Wireline Service Providers' Facilities in Tier 2 and 3 High Fire Threat Districts

| Type of facility | Total # of facilities | # of Facilities with Specified Length of Battery Backup Power | | | | | | |
|------------------------|-----------------------|---------------------------------------------------------------|---------------|------------|--------------|--------------|------------------|------------------|
| | | Any Amount | 0-8 hours | 9-12 hours | 13-24 hours | 25-71 hours | 72 hours or more | Unknown Duration |
| Central Offices | 2,676 | 2,676 | 135 | 6 | 2,168 | 176 | 191 | 0 |
| Headends | 2 | 2 | 0 | 0 | 0 | 0 | 2 | 0 |
| Hubs | 362 | 362 | 136 | 5 | 4 | 36 | 19 | 162 |
| Nodes* | 23,303** | 22,693 | 10,051 | 311 | 4,943 | 6,674 | 714 | 0 |
| Total | 26,343 | 25,733 | 10,322 | 322 | 7,115 | 6,886 | 926 | 162 |

* Nodes include remote terminals, digital loop carriers (DLCs) and video ready access devices (VRADs).
** There are 208 nodes that providers indicated the backup power amount was unidentified. There are also 402 nodes that providers indicated do not require backup power because they have power from other sources.

Furthermore, as shown in Table 2 below, approximately 97 percent (*i.e.*, 25,449) of facilities located in Tier 2 and 3 High Fire Threat Districts have the capability to be powered by a portable or onsite generator. For the facilities with the capability to handle a generator, about 37 percent have an onsite generator. This data suggests that most of the facilities can support ongoing backup power for several days, in conjunction with battery backup, if needed.

Table 2: Availability of Backup Power Using Generators for Wireline Service Providers' Facilities in Tier 2 and 3 High Fire Threat Districts

| Type of Facility | Total Number of Facilities | # of Facilities with Specified Backup Power Generators or Capability | | | |
|------------------------|----------------------------|----------------------------------------------------------------------|------------------|---------------------------|--------------------------------------------------|
| | | Battery Only, Line-powered or Unknown | Onsite Generator | Portable Generator in Use | No Generator (But capable of Portable Generator) |
| Central Offices | 2,676 | 0 | 2,656 | 0 | 20 |
| Headends | 2 | 0 | 2 | 0 | 0 |
| Hubs | 362 | 172 | 57 | 7 | 126 |
| Nodes* | 23,303 | 722 | 6,769 | 110 | 15,702 |
| Total | 26,343 | 894 | 9,484 | 117 | 15,848 |

* Nodes include remote terminals, digital loop carriers (DLCs), and video-ready access devices (VRADs).

72 hours of backup power, as a resiliency measure, will support those who are disproportionately affected most by disasters: emergency responders,

frontline personnel, medical personnel, individuals with access and functional needs, and hard to reach customers. In adopting this requirement, we allow the wireline providers flexibility over procurement and management of the power resource. Providers must prioritize investments based on risk of an outage (*e.g.*, facilities impacted by past PSPS events, past outages, customer impact, etc.).

Alternate Proposals for Backup Power Duration Requirement: Various wireline companies present an alternate communication network services resiliency proposal to meet the objectives expressed in the Assigned Commissioner's Proposal.¹⁷³

Generally, these proposals limit the obligation of wireline providers to maintain service for a minimum of 72 hours during an outage to two sets of customers: critical facilities (fire stations, police stations, hospitals, and emergency command and dispatch centers) and wireless carrier customers. This requirement would only apply under the following conditions: (1) the customer's facility is powered either by its own backup power or via commercial power; (2) the wireline company owns the network components that serve the customer (*e.g.*, not including leased facilities); (3) the wireline company can obtain the necessary access, permits and/or other relevant approvals to install and maintain the equipment, as long as doing so does not present risk of harm to persons or property and is feasible; (4) the wireline company's facilities have not been damaged and any backup power equipment can be safely accessed by workers for refueling and other maintenance purposes; and (5) for PSPS events, the IOU has provided the mandatory 48 to 72 hour notice to the wireline communications facility operator, consistent with the guidelines adopted in D.19-05-042.

¹⁷³ CCTA Opening Comments at 12-15.

We decline to adopt the alternate proposal because it is not in the public interest. The public interest dictates that all facilities must receive a reliable level of communications service for facilities in the most vulnerable communities in Tier 2 and 3 High Fire Threat Districts. The five conditions that the alternate proposals recommend are issues for other proceedings, regulatory arenas, or subject to change based on the facts of any given event. Their proposal also limits the applicability of this requirement to “critical facilities.” This is far too limiting, and of little benefit if the broader public is unable to reach these critical services, and these services are unable to reach the public. We find that our requirements will ensure consistency with other Commission efforts to mitigate the impacts of PSPS events and wildfires. Therefore, we require the wireline providers to maintain a minimum level of service for a minimum of 72 hours during an electric grid outage for their facilities in Tier 2 and Tier 3 High Fire Threat Districts .

In consideration of the steep technical barriers presented by the wireline providers to operationalize backup power to all facilities in Tier 2 and Tier 3 High Fire Threat Districts on an expedited timeline, we adopt a bifurcated implementation approach. For the sake of reasonableness, we are persuaded by the wireline providers that they will be more readily able to deploy the necessary infrastructure to maintain service to critical facilities, as well as infrastructure supporting wireless networks on a bifurcated timeline. Therefore, within eight months upon issuance of this decision, the wireline providers shall implement the 72-hour backup power requirement for critical facilities¹⁷⁴ as well as facilities providing service to wireless networks across Tier 2 and Tier 3 High Fire Threat

¹⁷⁴ The critical facilities list adopted in D.19-05-042, R.18-12-005.

Districts. . Then, within 18 months upon issuance of this decision, wireline providers shall implement the 72-hour backup power requirement for all remaining facilities across Tier 2 and Tier 3 High Fire Threat Districts. We direct the wireline providers to state which facilities provide service to critical facilities in their Communications Resiliency Plans.

Deployment of Backup Power: The Proposal recommends that the wireline providers have on-site emergency backup power to support all essential communications equipment. Many providers expressed concern with this language in the Proposal. They argue that the backup power requirement can, and should be, flexible giving providers complete discretion to manage their networks.

We are mindful that the concerns wireline providers raise regarding timing, siting, permitting, and cost constraints are real barriers to ensuring their networks have the backup power necessary to withstand a disaster or de-energization event. While permanent and durable solutions may take time to build out, the expectation is that providers will begin making interim plans and investments to use portable generation to maintain service in areas subject to outages. Providers must take special care to prioritize investments based on risk of an outage (*e.g.*, facilities impacted by past PSPS events, past outages, customer impact, etc.).

Ideally, every location would have an on-site generator with a zero-emission backup power supply, but that is not reasonably available or feasible given the ever-approaching wildfire season and de-energization events. While we strongly encourage providers to make robust backup power investments immediately, we decline to adopt such a requirement today.

In practice, the backup battery power that most of these sites already have will come online immediately after an outage. More than a third of sites already have a fixed generator that can provide service indefinitely if refueled. For sites without a generator, battery backup power provides the companies with sufficient time to have staff or contractors bring a portable generator to the impacted sites. Additionally, as these companies are provided advanced notice by the IOUs of a PSPS event, they will have more time to pre-position generators. Most sites are already capable of having a generator plugged into them, and just over a third of these sites have fixed generators. The use of portable generation is a feasible strategy as we expect it to be unlikely that every site on an individual network would be down at the same time. We expect companies to increase the number of facilities that have backup battery power and generators. As they do so, we remind and encourage wireline providers of their commitment to procure goods and services from women-owned, minority-owned, disabled veteran-owned and lesbian, gay, bisexual and transgender-owned business enterprises under GO156 and Sections 8281-8286.

We direct the wireline providers to maintain network service through various technological means to ensure that their facilities in Tier 2 and Tier 3 High Fire Threat Districts have 72-hour backup power to serve their customer during wildfires and de-energization and other disaster events. The wireline providers have eight (8) months from the effective date of this decision to implement this requirement for critical facilities as defined in D.19-05-042, facilities providing service to wireless networks, and network equipment located in communities lacking sufficient wireless service coverage across Tier 2 and Tier 3 High Fire Threat Districts. Within 18 months, we direct the wireline providers to implement this requirement for all facilities across Tier 2 and Tier 3 High Fire

Threat Districts. While the initial deadline is a shorter amount of time for implementation than was offered to wireless providers, there is a clear public need to have these requirements in effect ahead of next fire season. Additionally, the wireline providers have been on notice that the Commission would be adopting backup power requirements since March 2020. Further, the extended implementation timeline for all other facilities in Tier2 and Tier 3 High Fire Threat Districts will enable providers to make these investments over a more reasonable timeframe. Finally, we direct the wireline providers to demonstrate how they will fulfill this obligation by providing supporting documentation, information, and data in their Resiliency Plans, which must be submitted through a Tier 2 Advice Letter six (6) months from the effective date of this decision.

5.4.5. Parties Positions: Service Level for Backup Power Requirement

RCRC supports adopting the same minimum service level requirements for the wireline providers as the Commission did for the wireless providers in D.20-07-011.¹⁷⁵ RCRC also argues that requirements for system resiliency mean nothing without minimum service levels.¹⁷⁶

SCE does not support a one-size-fits-all approach and instead, recommends that we not apply the requirements of D.20-07-011 for minimum service to the wireline providers.¹⁷⁷ Similarly, Charter also argues that we should not apply the minimum service level requirements from D.20-07-011 to wireline

¹⁷⁵ RCRC Ruling Comments at 6.

¹⁷⁶ *Id.*

¹⁷⁷ SCE Ruling Comments at 9.

providers because of the practical barriers, including siting and permitting obstacles, community objections, safety risks, and pollution.¹⁷⁸

TURN¹⁷⁹ and Cal Advocates support applying the same service level coverage requirements for wireline providers as required by the wireless providers in D.20-07-011.¹⁸⁰ Cal Advocates assert that vulnerable populations in California, including low income and elderly individuals, are most likely to not have cell phones or smartphones and may be more likely to be reliant on wireline communication networks.¹⁸¹

AT&T generally supports D.20-07-011 definition of minimum service levels but requests that the definition be revised to acknowledge that the only emergency alerts and notifications that can be received over traditional telephone service or VoIP service are automated alert phone calls.¹⁸²

Cox argues the Commission should not apply the minimum service level coverage requirement from D.20-07-011.¹⁸³ Instead, Cox urges the Commission to adopt a narrowly tailored minimum service level requirement to serve emergency and critical facility customers.¹⁸⁴

¹⁷⁸ Charter Ruling Comments at 2.

¹⁷⁹ TURN Ruling Comments; Public Declaration of Afflerbach at 9.

¹⁸⁰ Cal Advocates Ruling Comments at 16.

¹⁸¹ *Id.*

¹⁸² AT&T Ruling Comments at 13.

¹⁸³ Cox Ruling Comments at 9-10.

¹⁸⁴ *Id.*

Comcast asserts that it would not be practical – or even possible – for Comcast or other wireline providers to maintain any minimum level of “coverage” throughout communities affected by disasters or PSPS events.¹⁸⁵

CA Water Association states that maintenance of wireline networks is a necessity for maintaining critical water and wastewater services for communities because wireline networks maintain the communications (phone, e-mail, and social media) between water agencies and customers.¹⁸⁶ CA Water Association also asserts that the public benefit, of requiring wireline providers to maintain networks and in doing so maintain connectivity for water agencies, is safeguarding access to water for customers throughout a crisis by enabling critical infrastructure providers the ability to continue performing their core functions.¹⁸⁷

5.4.6. Maintaining a Minimum Level of Service is Critical for the Public and Emergency Personnel During Disasters and PSPS Events

The Proposal suggests that customers should be able to access 9-1-1, to receive emergency notifications and to access the internet for 100 percent of customers in the event of a power failure. This position is supported by consumer advocates and local governments. We agree with RCRC, that the loss of internet service during a de-energization can have devastating results and cascading effects, since many notifications sent via text message contain links to websites where consumers can access more information about the outage or emergency.

¹⁸⁵ Comcast Ruling Comments at 15-16.

¹⁸⁶ CA Water Association at 3.

¹⁸⁷ *Id.*

Customers and first responders have a reasonable expectation that they will have communication services, receive emergency alerts and notifications, and can access the internet for critical information during an emergency, disaster, or when the power is out. We find it reasonable to adopt a rule that requires the wireline providers to ensure customers and first responders have access to minimum service levels and coverage. For the purpose of this decision, we emphasize that we are not mandating where or how carriers should offer service, nor do we address the pricing or availability of any service currently offered. The purpose of this rule is to ensure that customers, who are paying for service, continue to receive a minimum level of service in an emergency. Minimum service levels include the following: (1) 9-1-1 service; (2) 2-1-1; (3) the ability to receive emergency alerts and notifications; and (4) basic internet browsing during a disaster or commercial power outage.

This rule is applied to Tier 2 and Tier 3 High Fire Threat Districts to focus efforts and investments on the communities that are most at risk. While these districts are being prioritized in today's decision, the Commission may review whether this narrow requirement provides sufficient protection to all Californians impacted by wildfires, disasters, and PSPS events during a later phase of this proceeding.

There are certain disasters where it will be impossible to maintain service, including during extended power outages. We recognize that networks will likely be degraded, especially as providers determine that some sites that are used for capacity will not be maintained during an outage. Nonetheless, it is appropriate to require providers to maintain a minimum level of service and coverage to keep customers connected during critical times of peril. Ensuring continuity of communications service is of vital importance to the reliability of

9-1-1 communications. Our action here favors preservation of life, security, reliability, and safety.

5.4.7. Parties Positions: Backup Power at Customer Premises

The wireline providers argue that a backup power requirement for communications networks will be of limited utility if customers do not have backup power at the customer premises.¹⁸⁸ As the wireline providers explain,

[C]ustomer premises equipment – including VoIP equipment, cable modems, Wi-Fi routers, cordless phones, desktop computers, and other devices – necessary to access 9-1-1, web browsing, and other capabilities listed in the Proposal requires power in each customer’s home.

Proponents of the backup power mandate do not explain how the massive, cost-prohibitive reengineering required to maintain power throughout a cable network for 72-hours would make any difference to many millions of residential customers who lose power during disasters or [PSPS] events and do not have their own home backup power equipment.¹⁸⁹

With respect to the FCC regulations that require wireline providers to offer a 24-hour backup battery for VoIP services, Comcast asserts that only a very small – and decreasing – number of voice customers are interested in obtaining backup batteries.¹⁹⁰

Joint Consumer Advocates argue that the limited access to backup power in customers’ homes does not undermine the need for wireline backup power; but does indicate the need for the Commission to revisit requirements for battery backup power in the customer premises, in addition to network backup power requirements.¹⁹¹

¹⁸⁸ Charter July Ruling Opening Comments at 10.

¹⁸⁹ Comcast July Ruling Comments at 19.

¹⁹⁰ Comcast July Ruling Comments at 42.

¹⁹¹ Joint Consumer Advocates July Ruling Opening Comments at 20-23.

The Small LECs explain that many of their companies are offering services that are “line-powered” and thus do not necessarily need backup power at the customer premises to provide service. For the services that are not line-powered, Small LECs point out that customers have the option to obtain battery backup units from sources other than wireline providers, and, consequently, there may be a greater percentage of subscribers who have backup power in place.¹⁹²

5.4.8. Generation at Customer Premises is a Vital Component of Overall Communications Resiliency and Must be Expanded

For those networks that offer “line-powered” voice services, such as the Small LECs, the need for customer backup power is limited so long as the customer has a handset that does not need its own source of power.

While provider data indicates that customer uptake of this equipment appears limited, there are mitigating factors that must be considered. The FCC’s customer premises equipment requirement and associated customer education, and outreach requirements are limited to facilities-based VoIP services. The specific requirement to offer a battery supply that lasts 24-hours took effect in 2019. Joint Consumer Advocates express concern that there may be deficiencies in how providers educate their customers about this option and the associated benefits. Additionally, if customers that have taken the precautions to maintain backup power are still not able to make and receive calls because wireline providers fail to maintain sufficient backup power on their side of the network, this would make consumer efforts futile and have a chilling effect on subscriber adoption of backup batteries.

¹⁹² Small LECs July ruling Reply Comments at 7-8.

It is important to reiterate that the requirements adopted today apply to facilities in Tier 2 and 3 High Fire Threat Districts. These customers will be more than likely to have been de-energized, impacted by a wildfire, or been in a suggested or mandatory evacuation zone. These communities will be more than likely to have taken measures to ensure their own safety and communications service resiliency through procuring their own sources of backup power, such as a generator for their entire home or business. Generators ensure service – not just for communications – but for lighting, air-conditioning, heating, refrigeration, medical equipment, and other modern conveniences.

This Commission has taken steps to support and encourage such investments. The Self Generation Incentive Program (SGIP) provides subsidies for Californians to install distributed generation and energy storage in residences. D.19-09-027 authorized the collection of \$100 million for SGIP's equity resiliency budget, which provides subsidies for vulnerable customers in High Fire Threat Districts. SGIP's equity resiliency budget has been available to customers since May 2020 and has already seen nearly 4,500 applicants.¹⁹³ This increases the number of consumers that will have backup power at their home.

There is no clear way to estimate how many Californians have generators at their homes to maintain power during an outage. However, what is clear is that there has been a significant increase in the number of generators that have been purchased, as indicated by Cal Advocates, individual generator companies estimated that they were seeing between a 400 percent and 1,400 percent increase in interest before the October 2019 PSPS events.¹⁹⁴ After the 2019 PSPS events,

¹⁹³ Cal Advocates Ruling Opening Comments at 18.

¹⁹⁴ *Id.*

Generac, a company that accounts for “about 75 percent of the home standby generator market... [had] sales three times higher” than the previous year.¹⁹⁵

Wireline providers make a key point, that customer premises equipment—including VoIP equipment, cable modems, Wi-Fi routers, cordless phones, desktop computers—requires separate backup power to provide communications service during an outage. This does not foreclose on the obligation wireline providers have to maintain service on their end of the network, as there are multiple strategies that consumers use to maintain backup power. Thus, it is reasonable for the Commission to require wireline providers to maintain backup power, as detailed above. The Commission must also continue to improve consumer education about the need for backup power and increase access to consumer backup generation. As such, the annual customer education notifications required as a component of the Emergency Operation Plans discussed in Section 5.9 shall include customer education on the need for backup battery or generator power at the customer premises. This information will be provided in accordance with Decision 10-01-026, *Decision Adopting Guidelines for Customer Education Programs Regarding Backup Power Systems Pursuant to Assembly Bill 2393*. The annual notification required here shall be coordinated with or in addition to the requirements of Decision 10-01-026.

5.5. Identifying Areas Without Sufficient Wireless Coverage

In the Scoping Memo and Ruling, the Assigned Commissioner’s Ruling, and subsequent Assigned Commissioner and ALJ Rulings,¹⁹⁶ we sought

¹⁹⁵*Id.*

¹⁹⁶ See Assigned Commissioner Scoping Memo and Ruling, January 21, 2020; Assigned Commissioner Ruling and Proposal, March 6, 2002; and Assigned Commissioner and ALJ Ruling, July 22, 2020.

comment to help form rules to support areas without sufficient wireless coverage to ensure that Californians and first responders have continuity of service and access to 9-1-1, emergency alerts, and notifications during disasters or electric grid power outages.

5.5.1. Parties' Positions: Areas Without Sufficient Wireless Coverage

AT&T proposes that if wireless companies verify that a community does not have wireless coverage, and the electric company gives AT&T 30-days' notice that a power shutoff will occur, AT&T will then prioritize deploying portable generators to the facilities serving that area.¹⁹⁷

Charter and Comcast argue that the Commission should only impose backup power requirements on carriers of last resort (COLRs) – such as AT&T and Frontier – in communities without sufficient wireless coverage.¹⁹⁸

Comcast points out that wireless networks change as infrastructure buildout and deployment of different spectrum bands with different propagation characteristics continue in unserved areas.¹⁹⁹

Charter says it does not have granular data on wireless service availability and suggests the Commission should consult with, or impose reporting obligations on, facilities-based wireless providers to obtain this information.²⁰⁰

While Cal Advocates believes all wireline networks should be obligated to maintain service for a minimum of 72-hours throughout the state, they find it is reasonable to be concerned about communities with limited wireless coverage.

¹⁹⁷ AT&T July Ruling Comments at 31-32.

¹⁹⁸ Comcast Ruling Comments at 40 and Charter Ruling Comments at 26.

¹⁹⁹ Comcast Ruling Comments at 38.

²⁰⁰ Charter Ruling Comments at 26-27.

They also used the Commission's CalSPEED maps to estimate that over 200,000 Californians live in areas with limited wireless coverage served by only one wireless service provider or none at all.²⁰¹

5.5.2. Special Care Must Be Provided to Communities with Limited Communications Network Redundancy

RCRC indicates that there are long-term telecommunication reliability challenges in rural communities because many residents in these areas have to rely on wireline services due to a lack of access to wireless services. RCRC states that the community of Bonny Doon, Santa Cruz County, is illustrative of this problem. This community of 2,600 has little cell phone coverage, and many residents rely on wireline services that do not work when power is lost, leaving many residents without communications capabilities.

We agree that special care must be provided to communities with limited communications network redundancy. For communities without cell coverage, wireline service is of critical importance; it is the only lifeline for these communities to reach the outside world and otherwise receive notifications of incoming disasters. Requiring facilities-based wireline providers to maintain a minimum level of service for 72 hours during an electric grid outage will provide essential protections for communities that lack robust wireless coverage.

We disagree with AT&T's demand of 30-day notice. After four years of major disasters, expecting that disasters can be planned for with 30-days' advanced notice has little basis in reality.

Similarly, expecting that only COLRs will maintain networks that will maintain service through an outage – as suggested by Comcast and

²⁰¹ Cal Advocates Ruling Comments at 29-32.

Charter – reflects poorly on the state of competition in the communications marketplace. This creates an uneven playing field that only serves to hurt customers. Competition must not make our communications network less safe. Providers cannot engage in a race to the bottom: to provide the cheapest and least reliable service possible. The requirements we adopt today safeguard against the perils of a deregulated communications marketplace by ensuring a minimum level of service for those communities with the fewest alternatives. As discussed further above, this ensures the public’s safety.

Finally, we direct the wireline providers to maintain service in areas lacking sufficient wireless coverage across Tier 2 and Tier 3 High Fire Threat Districts for a minimum of 72-hours. The wireline providers have eight (8) months from the effective date of this decision to implement this requirement. The Communications Division will publish a map of areas in the state within Tier 2 and Tier 3 High Fire Threat Districts that do not have sufficient wireless coverage from at least one or fewer facilities-based wireless providers. This map will be published within 30 days of the effective date of this decision on the Commission’s website. Notice of its publication will be provided, as a courtesy, to the service list of R.18-03-011. Providers shall also indicate the facilities that provide service to these areas in their Communications Resiliency Plans.

5.6. Communications Resiliency Plans

In the Scoping Memo and Ruling, the Assigned Commissioner’s Ruling, and subsequent Assigned Commissioner and ALJ Rulings,²⁰² we sought comment on the Proposal’s requirement to file backup power plans (Resiliency

²⁰² See Assigned Commissioner Scoping Memo and Ruling, January 21, 2020; Assigned Commissioner Ruling and Proposal, March 6, 2020; and Assigned Commissioner and ALJ Ruling, July 22, 2020.

Plans) with the Commission six months from the effective date of a decision in this proceeding. The Proposal recommends that in this filing, the wireline providers will demonstrate their preparedness to the Commission to ensure 9-1-1 service, the ability to receive emergency notifications, and Internet access for 100 percent of customers in the event of an electric grid power outage. We discuss the parties' positions below.

5.6.1. Parties' Positions

UCAN states the Commission should impose the same requirement that providers submit a Resiliency Plan via a Tier 2 Advice Letter within six months of the effective date of the decision.²⁰³

SCE believes that resiliency requirements are not needed for CLECs that provide wireline services but argues that submittal of high-level plans with strategies based on the class of location is feasible but specific locations of critical SCE facilities and customer locations are confidential under federal law.²⁰⁴

Charter argues that we should not require resiliency plans as Tier 2 advice letters.²⁰⁵ Primarily, Charter asserts that the submittal of the Resiliency Plans will delay the process of enhancing resiliency and, the public nature of the Tier 2 advice letter process burdens providers who must maintain the confidentiality of the extremely sensitive information contained within the Resiliency Plan.²⁰⁶

Cal Advocates contends that the wireline providers should submit annual Resiliency Plans that meet all requirements outlined in Ordering Paragraph 1 of

²⁰³ UCAN Ruling Comments at 4.

²⁰⁴ SCE Ruling Comments 12-13.

²⁰⁵ Charter Ruling Comments at 17-18.

²⁰⁶ *Id.*

D.20-07-011, as wireless providers are required to do.²⁰⁷ Cal Advocates also argues that the wireline providers should submit this information within three months after the adoption of the decision (rather than six months) in time for this year's fire season peak as this information may mitigate the communication issues that occurred during the PSPS events last fall and should not wait.²⁰⁸

AT&T states it does not object to filing a Resiliency Plan but recommends the filing be information only rather than a Tier 2 advice letter.²⁰⁹ Cox also recommends that the Resiliency Plans as information only plans and not Tier 2 advice letters.²¹⁰

Comcast also does not object to filing the Resiliency Plans but states that the Resiliency Plans should not be prescriptive.²¹¹ Comcast also argues that roaming agreements, mobile cell sites, and temporary wireless facilities are not applicable to the wireline providers. Comcast requests that we make clear that the wireline providers can request confidential treatment for appropriate details of their Resiliency Plans pursuant to Section 583, General Order 66-D, and the California Public Records Act.²¹²

²⁰⁷ Cal Advocates Ruling Comments at 20.

²⁰⁸ *Id.*

²⁰⁹ AT&T Ruling Comments at 20.

²¹⁰ Cox Ruling Comments at 12.

²¹¹ Comments Ruling Comments at 23.

²¹² Comcast Ruling Comments at 23-26.

Joint Consumers and CWA recommend that the filing of Resiliency Plans be adopted with modification.²¹³ Joint Consumers and CWA recommend that the Communications Resiliency Plans address route diversity and backhaul.²¹⁴

5.6.2. Wireline Providers Shall File a Communications Resiliency Plan That Describes Their Ability to Maintain Minimum Service During a Disaster or Power Outage

The Proposal recommends that the wireline providers file a plan with the Commission six months from the effective date of a decision in this proceeding that describes their ability to maintain minimum service coverage for 100 percent of customers, in the event of an electric grid outage. The Proposal also recommends that the plans include, but not be limited to, the following informational elements:

- Detailed PSPS and grid outage response plans;
- Facilities with and without battery backup, fixed generation, and mobile generator hookups;
- The number of mobile generators and refueling trucks and specify which are stationed in California;
- Identify the ability to replace damaged facilities, including logical and physical network route diversity and temporary facilities (*e.g.*, mobile cell sites and temporary microwave backhaul);
- Identify employees dedicated to refueling and vendors including company and contract agreement;
- Identify the ability to support near real time reporting on system outages as required by Commission rules, CalOES regulations and California Government Code;
- Provide copies of refueling schedules;

²¹³ Joint Consumers Ruling Comment at 16.

²¹⁴ *Id.*

- Provide copies of roaming agreement; and.
- Provide copies of cooperative agreements to pool resources with other providers.

The question presented to the Commission is whether to adopt such a requirement, and whether the elements for such a requirement, listed above, are reasonable.

The wireline providers generally do not oppose the adoption of this requirement and the consumer advocates agree that this requirement should be adopted since the wireless providers are required to submit such a filing pursuant to D.20-07-011.

We adopt the Proposal's recommendation to mandate such a requirement. In the context of wireline resiliency, we are also convinced that achieving resiliency requires more than a plan for backup power alone. Consequently, the wireline providers shall submit to the Commission a Communications Resiliency Plan (Resiliency Plan). Below, we discuss our reasoning for this requirement and then we turn to the elements the wireline providers shall include in their Resiliency Plans.

Foundationally, we seek two outcomes from wireline providers' Resiliency Plans: (1) collaboration between the Commission, emergency responders at every level of government, and the wireline providers to meet future challenges; and (2) demonstration of each wireline provider's ability to maintain service during disasters and outages. The Resiliency Plan will help prepare the Commission and California's wireline providers to face emerging challenges and implement key learnings as conditions change, and as we observe response efficacy and effectiveness in real-time.

The Resiliency Plans should advance strategic planning about risks of disasters and service outages of the future. The Resiliency Plans will help us evolve our approaches to plan for uncertainty, avoid surprises, promote information sharing between the wireline providers and the Commission, and operate more effectively with increasingly severe wildfires and electric grid outages.

Next, we address some of the wireline providers' arguments against the proposed elements of the Resiliency Plan. For its part, while not objecting to the filing of the Resiliency Plan, Comcast contends that we should not be prescriptive as to micro-manage communications providers' service continuity efforts and divert sources away from network operations.²¹⁵ As stated in D.20-07-011, the intent and the elements of the Resiliency Plan are not an effort by the Commission to micromanage the wireline providers' operations, but rather, to instill accountability. The Resiliency Plan's elements shall serve as a guidepost to understand the wireline providers' networks as they are impacted by future disasters, plausible future operating conditions, challenges, and opportunities, and will identify what resiliency and preparedness management strategies are necessary to maintain a minimum level of service during disasters and electric grid outages in the future.

The Resiliency Plan, as adopted in D.20-07-011, sets forth a flexible structure for the providers to determine how best to maintain service. To repeat, the Resiliency Plan does not suggest imposing specific requirements on *how* providers maintain service. By and large, we recognize that communications networks are complex, diverse, and there may not be a "one size fits all"

²¹⁵ Comcast Ruling Comments at 23.

approach to ensuring service resiliency. However, by applying the elements of the Resiliency Plan, it is possible to achieve overall resiliency.

The Resiliency Plan and its required elements, specified below, establish a minimum standard, with appropriate specificity. This will assure the Commission and emergency responders at all levels of government that the wireline providers transparently and thoughtfully plan for wildfire and de-energization adversity in advance to protect the public health, safety, and welfare of California.

We note the concerns of some of our wireline providers regarding confidentiality and the consideration they ask us to give about having the Resiliency Plan filed as an information-only filing rather than a Tier 2 advice letter filing. Both SCE²¹⁶ and Comcast²¹⁷ contend that the Resiliency Plan contains confidential and highly sensitive information that is protected by federal law and would raise serious competitive and public safety concerns if disclosed. Comcast requests that we make clear that the wireline providers can request confidential treatment for appropriate details of their Resiliency Plans pursuant to Section 583, General Order 66-D and the California Public Records Act.²¹⁸ And for their parts, AT&T²¹⁹ and Cox²²⁰ recommend that the Resiliency Plans be filed as information only filing. We agree with SCE that the identification of employees who are dedicated to refueling may be unnecessary.

²¹⁶ SCE Ruling Comments 12-13

²¹⁷ Comcast Ruling Comments at 23-26.

²¹⁸ Comcast Ruling Comments at 23-26.

²¹⁹ AT&T Ruling Comments at 20.

²²⁰ Cox Ruling Comments at 12.

Instead, we direct the wireline providers to state the title of the manager in charge and the number of employees responsible for refueling.

We disagree that the wireline provider's Resiliency Plans should be an information-only filing. Part of our intent with requiring the submittal of the Resiliency Plan is to promote engagement and partnership on resiliency matters between the wireline providers and the Commission. An information-only filing is too passive of a scrutiny level needed to meet this moment. Therefore, we decline to adopt this requirement as an information-only filing and require a Tier 2 advice letter filing.

In D.20-07-011, we stated we had a significant concern with the wireless providers' alleged non-compliance with California Air Resources Board (CARB) standards²²¹ during their deployment of diesel generation. Consistent with D.20-07-011, we direct the wireline providers to also comply with CARB's rules going forward when deploying diesel generation.

Wireline providers can request confidential treatment for appropriate details of their Resiliency Plans pursuant to Section 583, General Order 66-D and the California Public Records Act (CPRA).²²² We remind wireline providers to limit their requests for confidential treatment to cover only the most truly sensitive information. Wireline providers should not request confidential treatment by the Commission of information that they provide to the FCC that is public (*i.e.*, does not receive confidential treatment).²²³ For example, wireline

²²¹ Communications Workers Ruling Comments at 3-4.

²²² Comcast Ruling Comments at 23-26.

²²³ See, e.g., 47 C.F.R Sections 9.19 (d)(2), which provides: "*Confidential treatment.* (i) The fact of filing or not filing an annual reliability certification or initial certification and the responses on the face of such certification forms shall not be treated as confidential. (ii) Information submitted with or in addition to such certifications shall be presumed confidential to the extent

providers should not seek confidential treatment for information they are required to provide to new and/or existing subscribers pursuant to 47 C.F.R. 9.20. Wireline providers should also not assert that infrastructure information they provide directly to the Commission is prohibited from disclosure by the Critical Infrastructure Information Act, 6 U.S.C. Section 671, *et seq.*, given the express language to the contrary set forth in 6 U.S.C. Section 673(c).²²⁴

Moreover, wireline providers should understand that the public has serious, well-founded concerns with the current inadequacy of telecommunications infrastructure resiliency and has a right to be able to voice comments or concerns about utility resiliency plans as they develop over the next few years. The wireline providers' provision of reliable and resilient telecommunications services is essential to their physical safety and welfare, and, if the public is to have confidence that carriers are providing such service, and that the Commission is adequately and appropriately developing and

that it consists of descriptions and documentation of alternative measures to mitigate the risks of nonconformance with certification elements, information detailing specific corrective actions taken with respect to certification elements, or supplemental information requested by the Commission or Bureau with respect to the certification." and 9.20(d) "Subscriber disclosure: (1) The provider of a Covered Service shall disclose to each new subscriber at the point of sale and to all subscribers to a Covered Service annually thereafter: (i) Capability of the service to accept backup power, and if so, the availability of at least one backup power solution available directly from the provider, or after the initiation of service, available from either the provider or a third party. After the obligation to offer for purchase a solution for twenty-four hours of standby backup power becomes effective, providers must disclose this information also for the twenty-four-hour solution; ..."

²²⁴ 6. U.S.C. Section 673(c): "Nothing in this section shall be construed to limit or otherwise affect the ability of a State, local, or Federal Government entity, agency, or authority, or any third party, under applicable law, to obtain critical infrastructure information in a manner not covered by subsection (a), including any information lawfully and properly disclosed generally or broadly to the public and to use such information in any manner permitted by law. For purposes of this section a permissible use of independently obtained information includes the disclosure of such information under section 2302(b)(8) of title 5." *See, e.g.* Resolution L-597, at 14-17.

implementing regulations necessary to ensure the provision of such service, the ability of parties and members of the public to effectively participate in open and transparent Commission proceedings is essential. Further, public access to information regarding the reliability and resilience of the services available from specific carriers at specific locations is essential if members of the public are to be able to make well-informed choices regarding their wireline providers.

While there will be situations in which the Commission may find that it is in the interests of the public to withhold information which could, if made public, potentially be used to harm utility networks and the public, such public interests in nondisclosure must be balanced against the public's right to access most government records as provided in Article 1, § 3 of the California Constitution, and the CPRA²²⁵ and the inalienable right to safety provided in Art.1, Section 1, of the California Constitution.

When submitters of information request confidential treatment based on Gov. Code Section 6255(a), they "must identify the public interest and not rely solely on private economic injury."²²⁶ As stated in GO 66-D: "*A private economic interest is an inadequate interest to claim in lieu of a public interest.*"²²⁷ The California Constitution, the CPRA, and Commission policy all favor disclosure of most government information, and the Commission starts any CPRA "balancing of public interests" analysis with the assumption that the information should be disclosed.

The public has an interest in any information relating to "the conduct of the people's business." The Commission must justify any withholding of

²²⁵ Gov. Code Section 6250 et seq.

²²⁶ D.17-09-023 at 44.

²²⁷ GO 66-D, Section 3.2(b), emphasis in original.

information, based on a specific CPRA exemption, or its determination that, on the facts of the particular case, the public interest served by withholding information clearly outweighs the public interest served by disclosure.

Balancing interests involves a degree of judgment, and the outcome may vary over time. For example, where information might well “relate to the conduct of the people’s business,” and thus be subject to the presumption that it should be disclosed, disclosure may at times run counter to other important public interests such as the interest in public safety or personal privacy.²²⁸ The balancing may require an assessment as to how much light disclosure would shed on an agency’s actions, or the actions of those it regulates, and as to how much harm might come from disclosure.²²⁹

The Commission may not delegate to another party the authority to control the disclosure of information that is otherwise subject to disclosure pursuant to Govt. Code Section 6253.3.²³⁰ Thus, when it comes to a decision regarding whether, on the facts of the particular case, the public interest served by nondisclosure clearly outweighs the public interest that would be served by disclosure, it is the Commission, not information submitters, who are entitled to, and responsible for, exercising its discretion and making determinations under Gov. Code Section 6255(a).

²²⁸ See e.g., *CBS, Inc. v. Block* (1986) 42 Cal.3d 646, 652-656, citing *Northern Cal. Police Practices Project v. Craig* (1979) 90 Cal.App.3d 116, 123-124

²²⁹ *Connell v. Superior Court*, *supra*, 56 Cal.App.4th at 613 (“A mere assertion of possible endangerment does not ‘clearly outweigh’ the public interest in access to these records.”, quoting *CBS, Inc. v. Block*, *supra*, 42 Cal.3d at 652; accord *New York Times, Co. v. Superior Court* (1990) 218 Cal.App.3d 1579, 1585.)

²³⁰ Gov. Code § 6253.3; see also, e.g., *Becerra v. Superior Court* (2020) 44 Cal. App.4th 897.

Finally, we highlight a key public policy point: the public's expectations are becoming exceedingly higher and less tolerant of losing service during disasters and outages. The elements required in the Resiliency Plans are by design, aimed to establish a set of minimum standards to preserve continuity of service as wildfires and electric grid outages continue, at least for the foreseeable future. It is critical that the wireline providers collaborate with the Commission as wildfires and outages strain both public and private sector resources while at the same time, public pressure for optimal service performance grows.

In summary, within six (6) months upon the effective date of this decision, the wireline providers shall submit a Communications Resiliency Plan to the Commissions' Communications Division via a Tier 2 advice letter. These Resiliency Plans shall describe how the wireline provider shall maintain a minimum level of service to preserve access to 9-1-1 and 2-1-1 services, maintain the ability to receive emergency notifications, and access to Internet browsing for emergency notices for their customers in the event of a power failure. Additionally, the wireline providers' Resiliency Plans shall include, but shall not be limited to, the following:

- Discussion of their ability to maintain a sufficient level of service to maintain access to 9-1-1 and 2-1-1, maintain the ability to receive emergency notifications and maintain access to Internet browsing for emergency notices immediately following the event of a disaster or power outage, including identifying how they maintain the resiliency of their networks, as defined in Section 5.2 of this decision
- Detailed PSPPS and electric grid outage response plans;
- Facilities with and without battery backup, fixed generation, and mobile generator hookups, their location, and the estimated length of time the facilities will operate

during a grid outage with and without refueling at each site;

- The number of mobile generators and refueling trucks and specify which are stationed in California;
- Identify the ability to replace damaged facilities, including logical and physical network route diversity and temporary facilities (*e.g.*, temporary microwave backhaul);
- Identify titles of management and number of personnel dedicated to refueling and vendors including company and contract agreement;
- Identify the ability to support reporting on system outages as required by Commission rules, Cal OES regulations, and California Government Code;
- Detail how backup generators comply with CARB standards;
- Provide refueling schedules;
- Provide cooperative agreements which are used to pool resources with other providers;
- Identify facilities that do not need backup power, are unable to support backup power due to a safety risk, or that is objectively impossible or infeasible to deploy backup power pursuant to Section 5.7.2., and identify the basis for that determination as well as discuss actions being taken by the wireline provider to mitigate service loss resulting from the lack of backup power at those locations;
- Identify investment plans to improve network resiliency pursuant to Section 5.7.2. (*e.g.*, deployment of redundant backhaul, deployment of fixed generators, etc.) and how these investments are prioritized for facilities most at risk (*e.g.*, facilities impacted by past PSPS events, past outages, overall customer impact, etc.); and
- Identify network facilities that support critical facilities pursuant to Section 5.4.4 as well as communities without sufficient wireless coverage pursuant to Section 5.6.2.

We direct the Communications Division to develop standardized reporting templates as well as a submittal schedule for the Communications Resiliency Plans within 60 days from the adoption of this decision. Each wireline provider shall submit an updated Communications Resiliency Plan annually via a Tier 2 Advice Letter that shall include, but not be limited to, all the information included in the initial Communications Resiliency Plan.

5.7. Waivers

In the Scoping Memo and Ruling, the Assigned Commissioner's Ruling, and subsequent Assigned Commissioner and ALJ Rulings,²³¹ we sought comment on the Proposal's waiver requirement, which would allow wireline providers to submit waivers if they qualify for any of the exemptions enumerated in the Proposal. We discuss the parties' positions below.

5.7.1. Parties' Positions

UCAN states there is no need to reinvent the wheel on waivers and so we should apply the same standards to the wireline providers as we do to the wireless providers in D.20-07-011.²³²

SCE argues that: (1) customer sites should not be automatically excluded to comply with federal confidentiality laws; (2) locations that are objectively not feasible include locations that are cost prohibitive, or where landlords are not willing to allow generators or green energy power backups, or government rights and permits cannot be obtained or have onerous add-on requirements.²³³

²³¹ See Assigned Commissioner Scoping Memo and Ruling, January 21, 2020; Assigned Commissioner Ruling and Proposal, March 6, 2002; and Assigned Commissioner and ALJ Ruling, July 22, 2020.

²³² UCAN Ruling Comments at 5.

²³³ SCE Ruling Comments at 14.

Charter states that instead of “needlessly multiplying compliance burdens, the Commission should expand the exemption process by which providers can categorically identify facilities for which the backup power obligation would be impossible or infeasible, including where costs outweigh benefits.”²³⁴ Charter also asserts that the process adopted in D.20-07-011 fails to meaningfully resolve fundamental obstacles that emerge as a result of a backup power requirement.²³⁵

Cal Advocates argues we should adopt a waiver protocol in which wireline providers may file a Tier 2 advice letter seeking a waiver for each facility that does not need or is unable to support backup power to provide access to 9-1-1 and 2-1-1, receive emergency alerts, and access Internet browsing for emergency notifications.²³⁶ Cal Advocates also recommends that waiver requests discuss why power backup cannot be installed, including significant risk to the safety of life or health or specific existing federal, state, tribal or local law.²³⁷

AT&T recommends the following: (1) providers must be allowed to identify facilities or classes of facilities that do not require backup power to provide the identified level of service; (2) providers must be allowed to identify facilities or classes of facilities where the identified level of backup power would cause significant risk to public safety or would violate the law; and (3) providers should be allowed to identify facilities where the level of backup power is objectively impossible or objectively infeasible to achieve.²³⁸

²³⁴ Charter Ruling Comments at 3.

²³⁵ *Id.* at 18.

²³⁶ Cal Advocates Ruling Comments at 20.

²³⁷ *Id.* at 21.

²³⁸ AT&T Ruling Comments at 21-22.

Joint Consumers argue that we should adopt an approach like what was promulgated in D.20-07-011.²³⁹ Joint Consumers also argue that wireline providers should not have the opportunity to request a waiver for backup power or backhaul facilities supporting a central office or headend.²⁴⁰

Cox supports the application of D.20-07-011 waiver provision categories to wireline providers and suggests a means for best determining whether an event is “objectively impossible” or “objectively infeasible.”²⁴¹ Cox also offers recommendations on how to define “objective impossibility.”²⁴² Cox suggests that we should interpret impossibility and infeasibility broadly enough to take into account the practicability that such scenarios present to allow wireline providers to make the most prudent decisions that prioritize the network resiliency needs of the affected communities.²⁴³ Cox also argues our waiver provisions should accommodate unforeseen circumstances that result in the impossibility, infeasibility, or impracticality of providing 72-hour backup power to certain locations.²⁴⁴ Finally, Comcast states that similar exemptions adopted in D.20-07-011 should be applied for wireline providers’ facilities or classes of wireline facilities.²⁴⁵

²³⁹ TURN Ruling Comments at 5-6.

²⁴⁰ *Id.*

²⁴¹ Cox Ruling Comments at 13-14.

²⁴² *Id.* at 14.

²⁴³ *Id.*

²⁴⁴ *Id.*

²⁴⁵ Comcast Ruling Comments at 26.

5.7.2. Wireline Providers Must Identify Facilities that Do Not Need Backup Power, are Unable to Support Backup Power Due to A Safety Risk or are Objectively Impossible or Infeasible to Deploy Backup Power

We decline to adopt the Proposal's waiver process as stated. Instead, we direct the wireline providers to identify, in their Resiliency Plan, facilities that do not need backup power, are unable to support backup power due to a safety risk, or are objectively impossible or infeasible to deploy backup power to, and to require a discussion of actions being taken by the wireline providers to mitigate service loss resulting from the lack of backup power at those locations pursuant to this decision.

Despite best efforts, we understand that there may be factors that come into play over which the wireline provider may have very little control. Therefore, we adopt the following components that shall be included in the wireline provider's Resiliency Plans:

- As a component of their Resiliency Plans, a wireline provider may identify specific facilities or classes of facilities that do not require 72- hours of backup power, or 72- hours for specified facilities, to maintain service to ensure access to 9-1-1 and 2-1-1, as well as the ability to receive notifications and access basic internet browsing for emergency notices for their customers. In identifying these facilities, the provider must include information on the location of the facilities, the type of facility, detail how service will otherwise be maintained to meet the minimum service requirement for the given facilities immediately following the loss of power, and why these facilities are unnecessary to do so; or
- As a component of their Resiliency Plan, a wireline provider may identify specific facilities or classes of facilities that are unable to comply with the requirement for 72-hours of backup power, or 72 hours for specified

facilities, because of significant risk to the safety of life or health; or specific existing federal, state, tribal or local law. In identifying these facilities, the wireline provider must include information on the location of the facilities, the type of facility, and a detailed description of facts supporting the basis of the wireline provider's claim of preclusion from compliance, including legal citations. In identifying these facilities, the wireline provider must detail the impact to service; or

- As a component of their Resiliency Plan, a wireline provider may identify specific facilities where 72-hours of backup power, or 72 hours for specified facilities, is objectively impossible or objectively infeasible to achieve. In identifying these facilities, the wireline provider must include information on the location of the facilities, the type of facility, and a detailed description of facts supporting the basis of the wireline provider's claim of preclusion from compliance. In identifying these facilities, the wireline provider must detail the impact to service.

Identification of circumstances described above serve as an indication that the requirement to build additional resiliency into wireline communications networks will take time. We must assess and identify the weaknesses in our communities' networks so that we may develop solutions that will increase safety.

We direct the wireline providers to discuss the types of investments they are making to enhance resiliency in their Resiliency Plans so that over time, the wireline providers reduce the proportion of facilities that are not resilient. Identifying such investments in their Resiliency Plans, as well as the specific locations and barriers that prevent wireline providers from deploying resiliency in their networks, will guide a data-driven conversation between the State, the wireline providers, and local governments to resolve resiliency issues and support overall, enhanced community resiliency.

5.8. Clean Generation

In the Scoping Memo and Ruling, the Assigned Commissioner's Ruling, and subsequent Assigned Commissioner and ALJ Rulings,²⁴⁶ we sought comment on the Proposal's clean generation directive, which require wireline providers to strive to utilize clean energy backup power options as reasonable before using diesel generators to meet the backup power requirement.

5.8.1. Parties' Positions

Many of the wireline providers argue against the Proposal's renewable procurement requirement for backup power generation. Generally, the wireline providers contend that: (1) renewable generation as a primary backup power source is infeasible because the technology requires more space and is not a reliable backup power resource; and (2) diesel remains the primary fuel resource because there are no existing clean energy solutions that can be deployed at large scale, for backup power purposes. Alternatively, Cal Advocates recommends we should encourage wireline providers to use clean energy for backup generation.²⁴⁷

5.8.2. Near-Term Use of Diesel Generation as a Primary Backup Power Resource is Reasonable, but the Wireline Providers Should Explore Pathways to Transition to a Future of Renewable Backup Generation

The Proposal recommends that the wireline providers use clean energy backup power (*i.e.*, solar, wind, fuel cell, etc.) as much as reasonably practicable, before using diesel generators to meet the backup power and resiliency needs.

²⁴⁶ See Assigned Commissioner Scoping Memo and Ruling, January 21, 2020; Assigned Commissioner Ruling and Proposal, March 6, 2002; and Assigned Commissioner and ALJ Ruling, July 22, 2020.

²⁴⁷ Cal Advocates at 2.

The Proposal also requires the wireline providers to identify the number and specific types of generators they will use, develop cooperative agreements with other utilities, make clean generation feasible, and identify annual targets for the reduction of fossil fuel generation. At this time, we decline to adopt an approach that might be too prescriptive while the emerging diesel alternative power sources arrive at tested, utility scale broad deployment.

We allow the wireline providers to use fossil fuel generators for backup power in the short-term however, we adopt some of the Proposal's recommendations with modifications. We direct the wireline providers to discuss what pathways they can explore to transition toward a cleaner backup power generation in their Resiliency Plans. Additionally, we direct the wireline providers to discuss the following topics in their Resiliency Plans: (1) the types of generators the wireline will use in the near-term; (2) identify the number, location, and specific types of generators the wireline providers will use; (3) provide an estimate of the emissions by greenhouse gas (GHG) emitted from prior use, on an annual basis; (4) detail the criteria air pollutant emissions factors; (5) discuss lessons learned from past use of fossil fuel generation as a widespread backup power resiliency strategy; and (6) discuss whether a pathway and/or approximate timeline of *if and how* the wireline providers anticipate a transition to renewable generation from fossil fuel generation for backup power resiliency.

As we previously stated in D.20-07-011, fossil fuel generation cannot be a long-term resiliency strategy. Large diesel generators – even when localized in select areas – present potential health risks for individuals who live or work near a temporary generation site. In the context of near-term deployment of fossil fuel generation, we are cognizant of this risk and so, we weigh it against the

near-term need for resiliency during the upcoming wildfire season and potential, de-energization events.

We calibrate this balanced near-and long-term approach to ensure minimum continuity of service necessary for public health, safety, welfare, and societal steadiness in times of crises. In this way, we meet a short-term need for backup generation while taking the necessary step toward a sustainable, future strategy that transitions away from fossil fuel to cleaner and safer, renewable backup power generation across our regulated industries.

5.9. Emergency Operations Plans

In the Scoping Memo and Ruling, the Assigned Commissioner's Ruling, and subsequent Assigned Commissioner and ALJ Rulings,²⁴⁸ we sought comment on the Proposal's directive for wireline providers to file emergency operations plans with the Commission, discussing how their operations are prepared to respond to emergencies. We discuss the parties' positions on this topic, below.

5.9.1. Parties' Positions

Generally, the parties agree that we should adopt the emergency operations plans - as recommended by the Proposal as well as adopted by D.20-07-011. For example, UCAN asserts that there is no reason to impose different emergency operations planning requirements on wireline providers as those imposed on wireless providers.²⁴⁹ SCE asserts that wireline locations are confidential and therefore, any report would have to be less detailed for specific

²⁴⁸ See Assigned Commissioner Scoping Memo and Ruling, January 21, 2020; Assigned Commissioner Ruling and Proposal, March 6, 2002; and Assigned Commissioner and ALJ Ruling, July 22, 2020.

²⁴⁹ UCAN Ruling Comments at 5.

locations than a similar wireless provider report.²⁵⁰ Cox too, highlights that the Emergency Operations Plans may contain sensitive information that warrants confidential treatment.²⁵¹

For its part, Charter argues that requiring wireline providers to submit such information increases administrative burdens with little if any public safety benefit.²⁵² Cal Advocates states it is reasonable to require the wireline providers to submit annually updated emergency operations to meet the same requirements as the wireless providers, as adopted in D.20-07-011.²⁵³ Similarly, TURN also supports the application of this requirement to the wireline providers.²⁵⁴ RCRC also supports the annual submission of Emergency Operations Plans and agrees that this requirement too, should be applied to the wireline providers just as it is applied to the wireless providers.²⁵⁵

AT&T is generally supportive of the Emergency Operations Plans adopted in D.20-07-011 and generally believes the Commission can adopt a similar such requirement for the wireline providers. AT&T recommends that wireline providers have flexibility in providing a map of outages requirements recognizing that notifications to impacted subscribers can only be made if electric utilities give timely notice of PSPS events.²⁵⁶ Comcast also supports filing the Emergency Operations Plans, subject to our recognition that any formal plan

²⁵⁰ SCE Ruling Comments at 15.

²⁵¹ Cox Ruling Comments at 13.

²⁵² Charter Ruling Comments at 21.

²⁵³ Cal Advocates Ruling Comments at 22.

²⁵⁴ TURN Ruling Comments at 4.

²⁵⁵ RCRC Ruling Comments at 9.

²⁵⁶ AT&T Ruling Comments at 23-26.

must include flexibility to adapt to rapidly changing facts on the ground. However, it finds that the posting of outage information problematic.²⁵⁷

5.9.2. The Wireline Providers Shall Submit Annual Emergency Operations Plans that Among Other Things, Provide Implementation Procedures to Ensure Substantive Engagement with the Commission and CalOES During Emergencies

As we have discussed, California has and will continue to face, unprecedented wildfires and power outages as fire weather conditions become increasingly more prevalent and severe due to climate change. As we have also stated, access to reliable communications is essential to the health and safety of all Californians. In consideration of adopting the Proposal's Emergency Operations Plan requirements, we find it crucial that both the Commission and CalOES have access to as close to real-time information regarding the wireline companies' infrastructure during PSPS events, especially its resiliency planning and backup power deployment preparedness.

We adopt the Proposal's requirements and agree with Cal Advocates too, that it is appropriate to adopt the same requirements for the wireline providers as we did for the wireless providers in D.20-07-011. We direct the wireline providers to submit the following information to the Commission's Communications Division Director, CalOES, and local emergency response managers within their service territory within 60 days of the effective day of this decision, in an information-only filing, that contains the wireline provider's: (1) emergency operations plan; (2) emergency contact information; (3) emergency preparedness exercise attestation; and (4) public communications plans. In

²⁵⁷ Comcast Ruling Comments at 27.

adopting this requirement, discussed in detail below, we highlight the need for good-faith and collective engagement between the wireline providers, the Commission, CalOES, emergency responders from across the government, and the public. These partnerships are critical to the future of our wildfire and PSPS emergency management.

Emergency Operations Plan: We direct the wireline providers to annually submit a copy of their emergency operations plan to the Commission's Communications Division Director, this email address- serviceresiliency@cpuc.ca.gov, CalOES, and local emergency response managers within their service territory. By submitting the emergency operations plan, the wireline provider agrees that all relevant operating personnel are familiar with the contents of the emergency operations plan and that operating personnel are committed to carrying out the plans and the provisions contained therein in the event of a system-wide or local emergency that arises from natural or manmade disasters, except to the extent deviations are appropriate under the circumstances during the course of an emergency. To the extent the Provider makes substantive changes to its emergency operations plan and, the wireline provider shall submit a revised plan within 14 days.

Emergency Contact Information: Furthermore, we direct each wireline provider to submit emergency contact information in a form prescribed by the Communications Division Director and updated at least annually. We direct the wireline providers to notify the Communications Division Director when any changes are made to the emergency contact list. We also direct the wireline providers to provide a list of emergency contact information and provide personnel that includes individuals who will be able to serve as the State Operations Center (SOC) liaison and can be present twenty-four (24) hours a day,

seven (7) days per week in the SOC, when requested by CalOES, during emergency response events.

We direct the wireline providers to ensure that the SOC liaisons are trained in emergency response, in accordance with Standardized Emergency Management System (SEMS), have working knowledge of wireline provider operations and business processes, and are informed of the impacts of PSPS events and disasters on the wireline provider's network. We direct the wireline providers to annually provide their emergency operations plans and emergency contact information to state emergency response organizations and local emergency response organizations within their service territories.

Emergency Preparedness Exercise: We also direct each wireline provider to train its operating personnel in the proper procedures for implementing its emergency plan. Each wireline provider shall conduct or participate in an annual emergency preparedness exercise to test its emergency procedures unless it has implemented its emergency procedures in response to an actual event within the last twelve (12) months. Following the annual emergency preparedness exercise, each wireline provider shall assess the effectiveness of the exercise and modify its emergency operations plan as needed.

Public Communications Plans: Next, as soon as reasonably possible, at the onset of a disaster or PSPS event, each wireline provider shall post on its website, and update at least daily, a map of outages and service impacts, a description of any outage impacts in the specified areas, and the expected restoration time. This information shall be distributed to impacted customers and shall also be made available to the general public by posting relevant information on the wireline provider's website and social media accounts, by sharing information with local media, and by providing updates to local and state elected officials

and public safety stakeholders. We additionally agree with consumer advocates, and further require that providers must follow customer outreach best practices we adopted in D.19-08-025.²⁵⁸

We agree with TURN that it is necessary to provide customers advanced notification about potential impacts. Therefore, we require wireline providers to give customers in Tier 2 and Tier 3 High Fire Threat Districts a general notification about potential impacts to their service that may be caused as a result of wildfire and PSPS events, and require customers update their contact information used to receive emergency and outage notices in advance of fire season each year. In addition, upon receiving notice from an electric utility that a PSPS event will occur, wireline providers must alert the subscribers in the impacted community of service impacts.²⁵⁹ For notifications to emergency responders, we defer to Cal OES's implementation of SB 670.

As discussed in Section 5.4.8, the annual customer education notifications shall include information on the need for backup battery or generator power at the customer premises. This information will be provided in accordance with Decision 10-01-026, *Decision Adopting Guidelines for Customer Education Programs Regarding Backup Power Systems Pursuant to Assembly Bill 2393*. The annual notification required here shall be coordinated with or in addition to the requirements of Decision 10-01-026.

6. Conclusion

This decision adopts comprehensive resiliency requirements for California's wireline providers. First, this decision defines resiliency, in the

²⁵⁸ Cal Advocates at 16.

²⁵⁹ TURN at 11.

context of emergency services management by the wireline providers, as the ability to recover from or adjust to adversity or change through a range of strategies. These strategies include but are not limited to: backup power, redundancy, network hardening, temporary facilities, preparedness planning, communication as well as coordination with other with other utilities, emergency responders, and the public. with other utilities, emergency responders, the public and finally, preparedness planning.

Second, this decision adopts a 72-hour backup power requirement for the wireline providers' facilities in Tier 2 and Tier 3 High Fire Threat Districts that provide service. This ensures minimum service is maintained during disasters or electric grid outages, consistent with our mandates under the California Constitution, the California Public Utilities Code, the Tenth Amendment to the U.S. Constitution, and other applicable law. The wireline providers have eight months from the effective date of this decision to implement this requirement for critical facilities, as defined in D.19-05-042, facilities providing service to wireless networks, and network equipment located in communities lacking sufficient wireless service coverage across Tier 2 and Tier 3 High Fire Threat Districts. Within 18 months, wireline providers shall implement this requirement for all facilities in Tier 2 and Tier 3 High Fire Threat Districts.

Third, this decision requires the wireline providers each to file an annual Communications Resiliency Plan with the Commission that details their ability to maintain service in a disaster or an electric grid outage.

Fourth, the decision permits the near-term use of fossil fuel generation as a primary backup power resource. However, the decision directs the wireline providers to explore ways to transition to renewable generation for backup power.

Finally, this decision directs the wireline providers each to submit annual emergency operations plans. Generally, the emergency operations plans must demonstrate the wireline providers' procedures for responding to a disaster.

7. Comments on Proposed Decision

The proposed decision of Commissioner Batjer in this matter was mailed to the parties in accordance with Section 311 of the Public Utilities Code and comments were allowed under Rule 14.3 of the Commission's Rules of Practice and Procedure. Comments were filed on January 27, 2021 by: (1) AT&T; (2) Cal Advocates; (3) CCTA; (4) Century Link; (5) Charter; (6) Comcast Phone; (7) Cox; (8) Frontier; (9) Joint Consumers; (10) SCE; and (11) Small LECs. Reply comments were filed on February 1, 2021 by: (1) Cal Advocates; (2) CforAT; (3) Charter; (4) CSAC; (5) CWA; (6) NFCRC; (7) SCE; (8) Small LECs; (9) TURN and Access Humboldt; (10) UCAN; and (11) Verizon.

We have carefully considered the suggested changes proposed by the parties in their comments and their reply comments to this Decision. The suggested changes that we accepted are reflected in the revised version of this Decision.

8. Assignment of Proceeding

Marybel Batjer is the assigned Commissioner and Colin Rizzo is the assigned Administrative Law Judge in this proceeding.

Findings of Fact

1. The Commission initiated Phase I of this proceeding to adopt an emergency disaster relief program for electrical, natural gas, water and sewer, and communications service providers.

2. As part of Phase I, the Commission adopted D.19-08-025, requiring communications providers to implement an array of customer protections when

the governor of California or the president of the United States declares a state of emergency.

3. In October and November 2019, widespread reports of communications outages across all communications sectors were reported as a result of wildfires and PSPS events.

4. D.19-08-025 found that during declared states of emergency, such as in the 2017, 2018, 2019 wildfires and 2019 PSPS, California's facilities-based wireline providers' networks failed, endangering the lives of customers and first responders.

5. Without access to 9-1-1 and the ability to reach first responders, Californians cannot access needed services, be safe, or even function in an emergency.

6. Many individual PSPS events have impacted tens of thousands of customers, with the largest PSPS events taking place on October 9-11 and 26-31, 2019.

7. Resiliency, for purposes of this decision, is the ability to recover from or adjust to adversity or change through an array of strategies including, but not limited to: backup power, redundancy, network hardening, temporary facilities, communication and coordination with other utilities, emergency responders, the public and finally, preparedness planning.

8. Wireline providers that diligently and adeptly utilize resiliency, and its related strategies, demonstrate that they can maintain and restore service for a portion of their customers during a disaster.

9. Mitigating wireline network disruption through resiliency measures minimizes the likelihood that large numbers of wireline customers will be adversely impacted.

10. A power outage is the period during which a generating unit, transmission line, or other facility is out of service.

11. There is a public need to adopt a narrowly tailored and reasonable backup power requirement for wireline providers during disasters or commercial power outages.

12. Because of climate change, wildfires, PSPS events, and/or other disasters will be part of the future with an expected increase in both frequency and severity.

13. Customers and first responders have a reasonable expectation that they will be able to call 9-1-1 and 2-1-1, receive emergency alerts and notifications, and access critical information during an emergency, especially when the power is out.

14. There are certain disasters where it will be impossible to maintain wireline service, including during extended commercial power outages.

15. Without a clear backup power requirement for wireline providers operating in the State of California, the public will be harmed during disasters and commercial grid outage events.

16. Wireline providers will ensure that their facilities in Tier 2 and Tier 3 High Fire Threat Districts have 72 hours of required backup power so that wireline customers have access to communication services, receive emergency alerts and notifications, and access the internet for critical information during an emergency, disaster, or when the power is out.

17. During the Covid-19 pandemic, the reliance on internet connection has intensified.

18. Californians are relying on wireline networks that support voice and internet service to attend school through distance learning, conduct work-from-home, take telehealth appointments, and for public safety during emergencies.

19. Decision 20-07-011 found that 80 percent of all calls to 9-1-1 during the 2017 and 2018 wildfires came from wireless devices; therefore, the remaining 20 percent came from wireline networks.

20. On October 28, 2019, over 400,000 wireline subscribers in California lost service.

21. Federal Communications Commission Disaster Information Reporting System found that cable and wireline companies reported 454,722 subscribers out of service due to the power shutoffs; this may include the loss of telephone, television, and/or internet service.

22. The Commission assessed the backup power currently deployed at wireline facilities in Tier 2 and Tier 3 High Fire Threat Districts and found that approximately 97 percent of wireline facilities have some amount of backup power, while three percent of facilities have no backup power.

23. Comcast and Frontier were not prepared during the 2019 public safety power shut off events.

24. Comcast lost power at several facilities resulting in service outages that affected a disproportionate number of facilities.

25. A significant number of Frontier's remote terminals do not have generators for backup power and are thus, unable to maintain service for 72 hours or any other amount of time in the event of a power outage.

26. Deployable generators, including mobile generators, that have capacity to provide 72 hours of backup power present less siting, permitting, and cost difficulties than requiring 72 hours of on-site backup power.

27. Minimum service levels and coverage during a disaster or commercial power outage include the following: (1) 9-1-1 service; (2) 2-1-1; (3) the ability to receive emergency alerts and notifications; and (4) basic internet browsing.

28. A required Communications Resiliency Plan will ensure the wireline providers transparently describe to the Commission, their ability to maintain: (a) sufficient level of service and coverage to (a) maintain access to 9-1-1 and 2-1-1; (b) receive emergency notifications; and (c) access internet browsing for emergency notices in the event of a disaster or power outage.

29. The Communications Resiliency Plan will ensure collaboration between the Commission and the wireline providers to meet future challenges and will demonstrate that the wireline providers can maintain and restore service during disasters and outages.

30. The Communications Resiliency Plan will help prepare both the Commission and the wireline providers to face emerging challenges and implement key learnings as conditions change and we observe response efficacy and effectiveness.

31. Using fossil fuel generators for backup power reliability and resiliency in the near term is necessary to ensure minimum continuity of service.

32. Fossil fuel generation as a backup power resource cannot be a long-term resiliency strategy.

33. Minimum continuity of service must be available for the public given the dangers associated with widespread, commercial grid outages, including the potential loss of, or damage to, life, health, property, and essential services.

34. An emergency operations plan demonstrates to the Commission how a wireline provider prepares and plans, organizationally, for a disaster or PSPS event.

Conclusions of Law

1. The Commission has jurisdiction over facilities-based wireline providers, and authority to ensure the reliability of communications networks in emergencies.
2. The State has a duty to ensure the public health and safety of all Californians.
3. The Commission has both the jurisdiction and the authority to require wireline telecommunications carriers, including interconnected voice over internet protocol (VoIP) carriers, to have emergency backup power for a minimum of 72 hours in Tier 2 and Tier 3 High Fire Threat Districts immediately following a commercial grid outage to support all essential communications equipment and minimum service levels for the public.
4. The Commission has plenary authority over public utilities, including during emergencies, pursuant to the California Constitution and the Public Utilities Code.
5. The Commission's "broad regulatory power over public utilities" derives from Article XII of the State Constitution, which establishes the Commission, and gives it wide-ranging regulatory authority, including but not limited to "the power to ... establish rules, hold various types of hearings, award reparation, and establish its own procedures."
6. The Commission's authority over public utilities includes oversight over both public utility services and facilities.
7. The Commission has an ongoing responsibility to ensure the reasonableness and sufficiency of utility facilities and may order additions, extensions, repairs, or improvements to, or changes in utility facilities that the Commission finds ought reasonably to be made.

8. Police power authority over matters related to public health and safety is traditionally reserved to the states.

9. The Tenth Amendment to the U.S. Constitution provides that powers not delegated to the United States by the Constitution, nor prohibited by it to the States, are reserved to the States respectively, or to the people.

10. The California Constitution and California statutory law designate the Commission as the principal body through which the State exercises its police power in the case of essential utility network services.

11. Public Utilities Code Section 451 gives the Commission broad authority to regulate public utility services and infrastructure as necessary to ensure they are operated in a way that provides for the health and safety of Californians.

12. Police powers have been vested to the Commission by various provisions of the Public Utilities Code, including Sections 451, 584, 701, 761, 768, and 1001.

13. The Commission's iterations of wired network authority include General Order (GO) 52 (construction and operation of power and communication lines for the prevention or mitigation of inductive interference), GO 95 (overhead electric [and communications] line construction; GO 128 (construction of underground electric supply and communication systems), and GO 159-A (construction of cellular radiotelephone facilities in California).

14. The regulatory measures promulgated in this Decision are consumer safeguards intended to protect the health and safety of utility customers, particularly those encountering wildfires and related public emergencies triggered by historic climate change.

15. The Commission's authority to adopt backup power rules set forth in this decision does not infringe on the authority the Legislature gave to the Governor

and the California Office of Emergency Services under the California Emergency Services Act.

16. It is reasonable to define resiliency, for purposes of this decision, as the ability to recover from or to adjust to adversity or change through an array of strategies, consistent with Section 5.2.2, including, but not limited to: (a) backup power; (b) redundancy; (c) network hardening; (d) temporary facilities; (e) communication and coordination with other utilities, emergency responders, and the public; and (f) preparedness planning.

17. It is reasonable to define an outage, as discussed in Section 5.3.2 of this decision, in accordance with the California Office of Emergency Service's definition of an outage pursuant to Section 53122 of the California Government Code, to better assure consistency across agencies, and to reduce both costs and confusion in adhering to inconsistent regulatory mandates.

18. It is reasonable for the wireline providers to maintain service through various technological means to ensure that their facilities in Tier 2 and Tier 3 High Fire Threat Districts have 72-hour backup power to serve customers in during the upcoming wildfire season and de-energization events.

19. It is reasonable for the Commission to review whether this narrow requirement provides sufficient protection to all Californians impacted by wildfires, disasters and PSPS events later in this proceeding.

20. It is reasonable for the wireline providers to have eight months from the effective date of this decision to implement the 72-hour backup power requirement across Tier 2 and Tier 3 High Fire Threat Districts, for: (a) critical facilities, as defined in D.19-05-042; (b) facilities providing service to wireless networks; and (c) network equipment located in communities lacking sufficient wireless service coverage.

21. It is reasonable to require the wireline providers to implement the 72-hour backup power requirement for all remaining facilities across Tier 2 and 3 High Fire Threat Districts within 18 months upon the effective date of this decision.

22. It is reasonable to define minimum service levels and coverage as including: (1) 9-1-1 service; (2) 2-1-1; (3) the ability to receive emergency alerts and notifications; and (4) basic internet browsing during a disaster or commercial power outage.

23. It is reasonable to require each wireline provider to submit a Communications Resiliency Plan via a Tier 2 Advice Letter within 6 months from the effective date of this decision.

24. It is reasonable to require the Communications Resiliency Plan to include the requirements of Section 5.6.2 of this decision.

25. It is reasonable to allow the wireline providers to identify, in their Communications Resiliency Plans, facilities that do not need backup power, are unable to support backup power due to a safety risk, or are unable to support backup power because the conditions make it impossible or infeasible to deploy backup power, and to identify the basis for that determination, as well as require a discussion of actions being taken by the wireline provider to mitigate service loss resulting from the lack of backup power at those locations.

26. It is reasonable to require each wireline provider to submit an updated Communications Resiliency Plan annually via a Tier 2 Advice Letter that shall include, but not be limited to, all of the information included in the initial Communications Resiliency Plan.

27. It is reasonable to allow the wireline providers to use fossil fuel generation as a primary backup power resource in the near-term, but encourage the wireline providers to transition to a future of renewable backup generation.

28. It is reasonable to require the wireline providers to submit annual emergency operations plans, pursuant to the requirements of Section 5.9.2 of this Decision, that discuss emergency response procedures and ensure substantive engagement with the Commission and CalOES during emergencies.

29. It is reasonable to require the wireline providers to submit updated annual emergency operations plans within 14 days of the updates taking effect.

O R D E R

IT IS ORDERED that:

1. Facilities-based wireline providers shall each file a Communications Resiliency Plan pursuant to Section 5.6.2 of this decision, within six months of the effective date of this decision, to the Communications Division via Tier 2 Advice Letter that describes how the wireline provider shall maintain a minimum level of service and coverage to preserve access to 9-1-1 and 2-1-1, maintain the ability to receive emergency notifications, and maintain access to internet browsing for emergency notices for their customers in the event of a power outage. Communications Resiliency Plans shall be updated and submitted to the Communications Division via Tier 2 Advice Letters annually. The Communications Resiliency Plan shall include, but is not limited to, the following information:

- Discussion of the ability to maintain a sufficient level of service to maintain access to 9-1-1 and 2-1-1, maintain the ability to receive emergency notifications and maintain access to internet browsing for emergency notices immediately following the event of a disaster or power outage, including identifying how they maintain the resiliency of their networks, as defined in Section 5.2 of this decision
- Detailed PSPS and electric grid outage response plans;

- Facilities with and without battery backup, fixed generation, and portable generator hookups, their location, and the estimated length of time the facilities will operate during a grid outage with and without refueling at each site;
- The number of mobile generators and refueling trucks, specifying and which are stationed in California;
- Identify the ability to replace damaged facilities, including logical and physical network route diversity and temporary facilities (*e.g.*, temporary microwave backhaul);
- Identify titles of management and number of personnel dedicated to refueling and vendors including company and contract agreement;
- Identify the ability to support reporting on system outages as required by Commission rules, Cal OES regulations, and California Government Code;
- Detail how backup generators comply with California Air Resource Boards standards;
- Provide refueling schedules;
- Provide cooperative agreements which are used to pool resources with other providers;
- Identify facilities that do not need backup power, are unable to support backup power due to a safety risk, or that is objectively impossible or infeasible to deploy backup power pursuant to Section 5.7.2., and identify the basis for that determination as well as discuss actions being taken by the wireline provider to mitigate service loss resulting from the lack of backup power at those locations;
- Identify investment plans to improve network resiliency pursuant to Section 5.7.2. (*e.g.*, deployment of redundant backhaul, deployment of fixed generators, etc.) and how these investments are prioritized for facilities most at risk (*e.g.*, facilities impacted by past PSPS events, past outages, overall customer impact, etc.); and

- Identify network facilities that support critical facilities pursuant to Section 5.4.4 as well as communities without sufficient wireless coverage pursuant to Section 5.6.2.

2. The Commission's Communications Division shall develop reporting templates as well as a submittal schedule for the Communications Resiliency Plans within 60 days from the adoption of this decision.

3. The Commission's Communications Division shall publish a map of areas in the state within Tier 2 and 3 High Fire Threat Districts that do not have sufficient wireless coverage from one or fewer facilities-based wireless providers within 30 days from the adoption of this decision on the Commission's website. Communications Division will serve this map, as a courtesy, to parties of the service list to Rulemaking 18-03-011

4. Facilities-based wireline providers shall, in their Communications Resiliency Plan pursuant to Section 5.6.2 of this decision, demonstrate their ability to: (a) meet the 72-hour backup power requirement, in Tier 2 and Tier 3 High Fire Threat Districts, consistent with Section 5.4.4, which adopts the 72-hour backup power requirement in Tier 2 and Tier 3 High Fire Threat Districts for the wireline providers operating in California; (b) meet the requirements of Section 5.4.4, which establishes that the 72 hours of backup power can be met with flexible procurement and deployment, and is a reasonable duration of time to fulfill the backup power requirement; and (c) meet the requirements of Section 5.4.6, which requires the wireline providers to ensure customers and first responders have access to minimum service levels and coverage including 9-1-1 service, 2-1-1, ability to receive alerts and notifications, and basic internet browsing during a disaster or commercial power outage, as well as describe their ability to maintain a minimum level of service and their long-term investment plan to comply with the 72-hour backup power requirement of this decision.

5. Facilities-based wireline providers shall file information only emergency operations plans pursuant to Section 5.9.2 of this decision, on an annual basis, with the first due within 60 days of the effective date of this decision to the Director of the Communications Division, this email address- serviceresiency@cpuc.ca.gov, the California Governor's Office of Emergency Services, and local emergency response agencies, as an information only filing that contains the wireline provider's: (1) emergency operations plan; (2) emergency contact information; (3) emergency preparedness exercise attestation; and (4) public communications plans.

6. Rulemaking 18-03-011 remains open.

This order is effective today.

Dated February 11, 2021, at San Francisco, California.

MARYBEL BATJER
President
MARTHA GUZMAN ACEVES
CLIFFORD RECHTSCHAFFEN
GENEVIEVE SHIROMA
Commissioners