

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking
Regarding Emergency Disaster
Relief Program.

Rulemaking 18-03-011

**OPENING COMMENTS OF THE PUBLIC ADVOCATES OFFICE
ON THE JUNE 11, 2020 PROPOSED DECISION ADOPTING WIRELESS
PROVIDER RESILIENCY STRATEGIES**

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APPENDIX A

I. INTRODUCTION

Pursuant to Rule 14.3 of the California Public Utilities Commission's (Commission) Rules of Practice and Procedure, the Public Advocates Office at the California Public Utilities Commission (Public Advocates Office) submits these comments on the Proposed Decision Adopting Wireless Provider Resiliency Strategies (Proposed Decision).

The Public Advocates Office resoundingly supports the Proposed Decision's adoption of requirements for wireless providers to have 72-hours of backup power on-site to ensure minimum service coverage is maintained immediately following a de-energization event that impacts the wireless providers' networks in Tier 2 and Tier 3 High Fire Threat Districts (HFTDs). The Proposed Decision takes important first steps in ensuring that wireless service customers in HFTDs have reliable access to 9-1-1 service, 2-1-1, and emergency information. The Public Advocates Office commends the Commission for proposing a 72-hour backup power requirement for wireless providers' facilities. However, the Public Advocates Office respectfully suggests that the 12-month implementation period is too long. The Proposed Decision should require wireless providers to file Communication Resiliency Plans (Resiliency Plans) as Tier 2 Advice Letters within three months and implement the required 72-hour backup power requirements within six months of the effective date of the decision. Wireless providers must take all steps necessary to ensure consumers are able to dial 9-1-1 during this upcoming wild-fire season; it cannot wait another year.

The Public Advocates Office's filed comments pointed out important measures to ensure minimum service coverage is maintained during disasters or commercial outages that are not included in the Proposed Decision. In addition, the Public Advocates Office proposes additional Findings of Fact, Conclusions of Law, and Ordering Paragraphs consistent with the Proposed Decision to strengthen and support the proposed requirements.

Lastly, while Public Advocates Office supports the Proposed Decision, we caution that there is still much more to do to ensure all Californians have reliable access to

communications services. To that end, the Proposed Decision should include a timeline for adopting backup power requirements on wireline facilities¹ located in Tier 2 and Tier 3 HFTDs, and to expand the scope of the requirements to the remaining wireline and wireless facilities outside Tier 2 and Tier 3 HFTDs.

The Public Advocates Office therefore recommends the following changes to the Proposed Decision:²

- The Commission should clarify that wireless providers must maintain uninterrupted minimum service coverage immediately following a disaster or power outage;
- The Commission should require wireless providers to submit Communication Resiliency Plans within three (3) months and implement backup power requirements within six (6) months of the effective date of the decision;
- The Commission should require wireless providers to update Resiliency Plans on an annual basis;
- The Commission should develop a timeline by which wireless providers must implement clean energy backup generation;
- The Commission should adopt enforcement mechanisms to ensure wireless providers meet proposed requirements;
- For wireline facilities located in Tier 2 and Tier 3 HFTDs, the Commission should include a deadline to release a proposed decision that outlines standards for backup power by no later than September 1, 2020; and
- For areas outside of the HFTDs, the Commission should include a deadline to release a proposed decision that outlines standards for backup power by no later than September 1, 2020.

¹ Wireline providers include traditional landline telephone service and Voice Over Internet Protocol (VoIP) telephone service.

² The proposed changes may be found in Appendix A to these comments.

II. COMMENTS

A. **The Commission should clarify that wireless providers must maintain uninterrupted minimum service coverage immediately following a disaster or power outage.**

The Proposed Decision adopts a 72-hour backup power requirement for wireless providers' facilities, to ensure minimum service coverage is maintained during disasters or commercial grid outages.³ The Commission should clarify that wireless providers are required to maintain 72 hours of uninterrupted service coverage immediately following a commercial outage to (1) preserve access to 9-1-1 and 2-1-1, (2) maintain the ability to receive emergency notifications, and (3) maintain access to internet browsing for emergency notices for their customers immediately following the event of a power outage in the ordering paragraphs. Currently, these requirements are in the dicta of the Proposed Decision.⁴ The Commission should add a new ordering paragraph to clarify the 72-hour backup power requirement (Appendix A, proposed Ordering Paragraph 5).

The Proposed Decision states that in an ideal case “every location would have an on-site generator,”⁵ and recommends onsite backup power to meet the 72-hour backup power requirement.⁶ The Public Advocates Office agrees that wireless providers should increase their on-site backup power and will need to do so in order to maintain uninterrupted minimum service immediately following a power outage. Macro cell sites that have equipped all essential communications equipment with onsite backup power would be able to immediately respond to power outages and maintain continuity of service. This is supported by data from wireless providers that shows that wireless providers with more widespread on-site backup power had far fewer outages during the 2019 Public Safety Power Shutoffs (PSPS) events.⁷ During the 2019 PSPS events,

³ Proposed Decision, p. 2, 78.

⁴ Proposed Decision, pp. 61, 78-79, 81-82.

⁵ Proposed Decision p. 78.

⁶ Proposed Decision, p. 76.

⁷ R. 18-03-011 Reply Comments of The Public Advocates Office on the Assigned Commissioner's Ruling and Proposal (March 22, 2020), p. 8.

Verizon, the wireless provider with the most on-site backup power, had far fewer service outages than other major wireless providers.⁸ Most macro cell sites in the state have batteries that can manage short term outages (usually between two and eight hours); however, 77 percent of the macro cell sites statewide do not have any onsite backup beyond these batteries.⁹ The Public Advocates Office showed that 72 percent of the macro cell sites in the state that have backup generators in addition to battery backup power are owned by Verizon.¹⁰ This likely played a significant role in explaining why Verizon only had small percent of the service outages during the 2019 PSPS events.¹¹

The evidence suggests that Verizon’s approach of maintaining on-site backup power beyond just batteries is a more effective strategy for avoiding outages and providing uninterrupted service than the strategies pursued by other wireless providers. Conclusions of Law 48 and 49 should be revised to emphasize the importance of uninterrupted service at the outset of power outages and Ordering Paragraphs 1 and 5 revised to require utility compliance.

B. The Commission should require wireless providers to submit Communication Resiliency Plans within three (3) months and implement backup power requirements within six (6) months of the effective date of the decision.

The Proposed Decision establishes a nine month timeframe for wireless providers to implement backup power requirements.¹² Given that fire season in California is starting earlier and ending later each year,¹³ it is critical that backup power capacity is deployed to HFTDs as soon as practicable. CalFire’s first recorded fire in 2020 began on February 15, 2020. The first fire that grew to larger than 1,000 acres began on

⁸ Proposed Decision, p. 66.

⁹ R. 18-03-011 Opening Comments of The Public Advocates Office on the Assigned Commissioner’s Ruling and Proposal (March 22, 2020) p. 5, R. 18-03-011 Reply Comments of The Public Advocates Office on the Assigned Commissioner’s Ruling and Proposal (March 22, 2020), p. 7.

¹⁰ Proposed Decision, p. 73.

¹¹ R. 18-03-011 Reply Comments of The Public Advocates Office on the Assigned Commissioner’s Ruling and Proposal (March 22, 2020), pp. 8-9.

¹² Proposed Decision, p. 108.

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

May 3, 2020.¹⁴ It is imperative to provide backup power capacity to sites in HFTDs before the 2021 fire season begins.

Wireless providers have anticipated the proposed backup power requirements and are actively working towards implementing backup power throughout the state. AT&T, for example, has a plan to “achieve approximately 97% of population coverage of [their] California customers with backup power at [their] macro cell sites by the 2020 fire season.”¹⁵ Similarly, T-Mobile “is in the process of acquiring hundreds of portable generators and intends to install permanent generators on numerous additional sites throughout the state.”¹⁶ While 97% of Verizon’s macro cell sites remained in service during the PSPS and wildfire events last year, they “are constantly improving [their] network and are currently revisiting whether there are macro [cell] sites in [HFTDs] Tiers 2 and 3 that do not currently have fixed generators and whether circumstances have changed to make prior infeasible sites feasible.”¹⁷ Lastly, “Sprint has doubled the number of portable generators that it stores in California” in advance of the upcoming 2020 wildfire and grid outage season.¹⁸ Wireless providers have been actively working to provide backup power capabilities across California, and it is essential to accelerate the timeline for backup power implementation.

Given that wireless providers have been proactive in procuring backup power in advance of the 2020 wildfire season, the Commission should accelerate the timeline for submitting Resiliency Plans. The Resiliency Plans should be submitted within three (3) months of the effective date of the decision. The Commission should revise

¹⁴ <https://www.fire.ca.gov/incidents/2020/>.

¹⁵ R. 18-03-011 Opening Comments of AT&T on the Assigned Commissioner’s Ruling and Proposal (March 22, 2020), p. 57.

¹⁶ R. 18-03-011 Opening Comments of T-Mobile on the Assigned Commissioner’s Ruling and Proposal (March 22, 2020), p. 28.

¹⁷ R. 18-03-011 Opening Comments of Verizon on the Assigned Commissioner’s Ruling and Proposal (March 22, 2020), p. 41.

¹⁸ R. 18-03-011 Opening Comments of Sprint on the Assigned Commissioner’s Ruling and Proposal (March 22, 2020), p. 24.

Conclusions of Law 50, 52 and 53, and Ordering Paragraph 1 to update the timeline for adopting regulations and submitting Resiliency Plans.

C. The Commission should require wireless providers to update Resiliency Plans on an annual basis.

The Proposed Decision requires each wireless provider to use a Tier 2 Advice Letter to file a Resiliency Plan that describes their ability to maintain minimum service coverage during a disaster or power outage.¹⁹ The Proposed Decision has also eliminated the “waiver” process and instead requires providers to provide information in their Resiliency Plans that includes: (a) sites that do not require 72 hours of backup power to maintain service requirements, (b) specific facilities or classes of facilities that are unable to comply with the 72-hour backup power requirement because of significant risk to safety of life or health; or specific existing federal, state, tribal or local law, or (c) specific facilities where 72-hours of backup power is objectively impossible or infeasible in Resiliency Plans.²⁰

The Resiliency Plans should be updated and approved by the Communications Division on an annual basis to ensure that providers continue to meet requirements when building out and maintaining their networks. This is of particular importance because the Resiliency Plans are a tool that allows the Commission to determine whether wireless providers continue to implement backup power when building new facilities. Wireless providers and the Commission can also use updated Resiliency Plans as a way of monitoring the pace of providers’ resiliency efforts. The Commission should add a new Conclusion of Law (55) and revise Ordering Paragraph 1 to reflect this change.

D. The Commission should develop a timeline by which wireless providers must implement clean energy backup generation.

The Proposed Decision allows wireless providers to use fossil fuel generators for backup power in the short-term and directs providers to “include an approximate timeline

¹⁹ Proposed Decision, p. 127.

²⁰ Proposed Decision, p. 129.

of when and how the wireless providers anticipate a transition to renewable generation from fossil fuel generation for backup power resiliency.”²¹ The Commission should require wireless providers to submit proposed timelines by which they will install renewable energy backup at 25%, 50%, 75%, and 100% of their sites. This information would allow the Commission to monitor the implementation of renewable backup generation at wireless provider facilities.

The National Fuel Cell Research Center (NFCRC) states that fuel cell systems are available on the market and have been used by telecommunication companies for critical backup and primary power at cell phone towers, cable nodes, and telecommunication hubs for nearly two decades.²² The NFCRC also states fuel cell systems have provided backup power to telecommunications during natural disasters like hurricanes in Southeastern U.S. and the Caribbean, and in California after earthquakes and wildfires.²³ NFCRC’s comments make it clear that it is feasible for providers to implement renewable backup generation onsite within a few years. The Commission should revise Conclusions of Law 53 and 56 and Ordering Paragraph 1 to reflect this recommendation.

E. The Commission should adopt enforcement mechanisms to ensure wireless providers meet proposed requirements.

The PD makes a factual error by not including enforcement mechanisms. The Public Advocates Office raised the need for enforcement in comments to the Commission’s December 18, 2019’s Phase II Scope,²⁴ and initial comments to March 23, 2020’s Proposed Requirements.²⁵ Enforcement mechanisms are necessary to ensure that wireless providers maintain service during disasters and power outages and

²¹ Proposed Decision, p. 100.

²² R.18-03-011 Reply Comments of the National Fuel Cell Research Center on the assigned Commissioner’s Ruling and Proposal (March 22, 2020) pp. 3-4.

²³ R.18-03-011 Reply Comments of the National Fuel Cell Research Center on the assigned Commissioner’s Ruling and Proposal (March 22, 2020) pp. 3-4.

²⁴ Public Advocates Office Comments on Phase II Scope of the Emergency Disaster Relief Rulemaking 18-03-011, p. 4.

²⁵ R. 18-03-011 Opening Comments of The Public Advocates Office on the Assigned Commissioner’s Ruling and Proposal (March 22, 2020), p. 18.

report on resiliency and emergency operations efforts. The Commission should develop enforcement requirements that include sanctions and penalties for failure to comply with the adopted requirements.

The Commission should direct the Consumer Protection and Enforcement Division to propose an enforcement program to ensure the provider's compliance with the Proposed Requirements. The enforcement program should include, but not be limited to, compelling the following: (1) meeting the Backup Power Requirement; (2) timely submission and update of Resiliency Plans; and (3) timely submission and update of Emergency Operations Plans. The Commission should add a new Ordering Paragraph (Ordering Paragraph 8) to reflect this change.

F. The Commission should include a deadline to release a proposed decision that outlines standards for backup power for wireline providers by no later than September 1, 2020.

The PD errs by adopting specific regulations that fit the needs of wireless customers, but defers similar regulations for other communications service providers, such as wireline providers.²⁶ The Commission should establish by no later than September 1, 2020 a deadline to adopt and implement backup power standards for wireline communications service providers.

In Reply Comments to the March 22, 2020 Assigned Commissioner's Ruling and Proposal, the Public Advocates Office showed for three major providers the number of cable infrastructure sites (headends, hubs, and nodes) that lost power, the average amount of time the sites ran on backup power and the average amount of time the sites were not in service.²⁷ This analysis showed that some cable providers did not have sufficient backup power throughout their network to prevent sites from losing service.²⁸ The Public Advocates Office also analyzed outage reporting from the Federal Communications

²⁶ Proposed Decision, 3.

²⁷ R. 18-03-011 Reply Comments of The Public Advocates Office on the Assigned Commissioner's Ruling and Proposal (March 22, 2020), p. 12.

²⁸ R. 18-03-011 Reply Comments of The Public Advocates Office on the Assigned Commissioner's Ruling and Proposal (March 22, 2020), p. 13.

Commission (FCC) Disaster Information Reporting System (DIRS) and found that 454,722 cable and wireline subscribers lost service on one day, October 28, during the 2019 PSPS events.²⁹ The Proposed Decision finds that wireline customers have also experienced service outages during commercial power outages.³⁰

It is critical that all communication customers receive uninterrupted service during disasters and power outages, no matter their cause. The Commission should revise Finding of Fact 71, and Ordering Paragraph 7 to include a deadline to adopt regulations for wireline providers.

G. The Commission should include a deadline to release a proposed decision that outlines standards for backup power for facilities outside of HFTDs by no later than September 1, 2020.

The Proposed Decision appropriately applies a 72-hour backup power requirement for wireless facilities in Tier 2 and Tier 3 HFTDs.³¹ Given the increasing duration of wildfire season and the risk wildfires pose to customers in HFTDs, it is critical to maintain reliable communications service in order to ensure customers are able to reach first responders and access emergency information. The Proposed Decision implements the 72-hour backup power requirement for *wireless facilities* located in HFTDs as soon as practicable, or within a maximum of 12 months. However, due to the widespread impact of de-energization events, the need for backup power extends beyond HFTDs. Therefore, the PD should be revised to set a deadline to release an additional proposed decision that outlines backup power requirements for all wireless facilities throughout California by no later than September 1, 2020.

²⁹ R. 18-03-011 Reply Comments of The Public Advocates Office on the Assigned Commissioner's Ruling and Proposal (March 22, 2020), p. 12.

³⁰ Proposed Decision, p. 113.

³¹ Proposed Decision pp. 3, 31, 78-79.

California has a population of 39.5 million.³² An estimated 7.8 million Californians live in census tracts that are completely or partially within HFTDs.³³ The rest of Californians reside in non-HFTDs, yet are exposed to safety and health risks from emergency disasters and power outages, including PSPS events.

Long term widespread power outages can occur in a variety of locations, often during emergencies and not just in HFTDs. The Proposed Decision recognizes that communications outages are not unique to fires. The Proposed Decision states that “communications outages occurred long before the recent years of devastating wildfires and de-energization events,” and during 2017’s winter storms, “2.5% of Californians [lost] the capability to dial 9-1-1 for some time.”³⁴

Many of the communications outages that occurred during the 2019 PSPS events occurred in areas outside of HFTDs. Disasters and commercial power outages impact Californians living in many parts of the state, not just those in HFTDs. The Commission should include an additional ordering paragraph (see proposed Ordering Paragraph 6 in Appendix A of these Comments) committing to releasing a proposed decision that outlines backup power requirements for areas outside of HFTDs by September 1, 2020.

H. The Proposed Decision Contains Other Factual Errors.

In Opening Comments to the Proposed Regulations, the Public Advocates Office stated “[o]f the four providers serving Paradise, two had no macro cell sites with backup capacity beyond batteries. Two providers had at least one macro cell site with additional on-site backup capacity in the form of generators. A total of four macro cell sites had additional generators deployed. Of the fifteen macro cell sites near Paradise in Tier 3 High Fire Threat areas, only three (20%) of the macro cell sites have onsite backup

³² <https://www.census.gov/content/census/en/search-results.html?stateGeo=none&q=california%20population%20ca&searchtype=web&page=1>

³³ This number is based on Public Advocates Office’s analysis of the 2013-2017 American Community Survey 5-year estimates, and it includes the population of every census tract that is either completely or partially in Tier 2 or 3 HFTDs.

³⁴ Proposed Decision, p. 65.

generators.”³⁵ The Public Advocates Office analyzed data requests issued in November of 2019 to support this statement. To the best of the Public Advocates Office’s knowledge, the backup power capacity data reflects the state of the wireless providers’ network at the time of the data request response. The Public Advocates Office cannot speak to the state of backup power near Paradise at the time of the 2018 Camp Fire. The Public Advocates Office clarify Findings of Fact 36 so it accurately reflects the Public Advocates Office’s data.

In addition to the above recommendations, the Public Advocates Office recommends the following changes to the Findings of Fact to clarify and correct factual errors (see Table 1).

Table 1: Additional Clarifications and Corrections in the Findings of Fact

Paragraph	Modification	Reasoning
14	The number of wireline customers has steadily decreased as consumers begin to rely solely on wireless service. <u>However, wireline service continues to be a necessary lifeline and an essential service to many Californians living in areas where they are not able to access wireless services or to many Californians who are distance learning, teleworking, accessing telehealth, and on-line government programs.</u>	A wireline connection is essential for Californians to access distant learning, telework and access telemedicine for medical assistance.
23	Wireless providers that diligently and adeptly utilize resiliency, and its related strategies, demonstrate that they can maintain service <u>for a portion of their customers</u> during a disaster.	None of the major wireless providers maintained service for all customers during 2019 PSPS events.
25	In 2019, Verizon utilized an array of resiliency strategies, <u>including</u>	The Public Advocates Office argued in Reply Comments to the Assigned

³⁵ R. 18-03-011 Opening Comments of The Public Advocates Office on the Assigned Commissioner’s Ruling and Proposal (March 22, 2020), pp. 6-7.

Paragraph	Modification	Reasoning
	onsite backup power, that and successfully kept much of its network operational and running on backup power.	Commissioner’s Ruling that onsite backup power played a significant role in Verizon’s success in maintaining much of its network. ³⁶
29	There is a public need to adopt a narrowly tailored and reasonable backup power requirement for wireless providers during disasters or commercial power outages and PSPS events.	The PD uses the term “commercial power outage” in discussing the application of these regulations more frequently than PSPS events. PSPS events are used as examples of commercial power outages in which backup power is needed.
30	Customers and first responders have a reasonable expectation that they will hear a dial tone, 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 commercial power is out.	Wireless customers do not hear a dial tones on wireless devices. The Proposed Decision states that 9-1-1 and 2-1-1 is part of the minimum expected service suggested by the Proposed Decision. ³⁷
38	Outages were widespread for most wireless providers during the 2019 PSPS events, with outages occurring in nearly over half of the counties in the State.	Finding of Fact 41 states that “[i]n 2019, over half of California’s counties were impacted by network outages.” ³⁸
45	California’s electrical corporations may will benefit from a wireless communications network that is more resilient.	It is very likely that electrical corporations will benefit from resilient communications networks, specifically when in the field and when communicating with their customers.
53	Only 8 percent of power outages at macro cell sites during the 2019	This change more clearly states the fact.

³⁶ R. 18-03-011 Reply Comments of The Public Advocates Office on the Assigned Commissioner’s Ruling and Proposal (March 22, 2020), p. 8.

³⁷ Proposed Decision, p. 81.

³⁸ Proposed Decision, p. 114.

Paragraph	Modification	Reasoning
	PSPS events lasted longer than 72 hours.	

III. CONCLUSION

The Public Advocates Office supports the Proposed Decision and recommends that it be adopted with the following changes:

- The Commission should clarify that wireless providers must maintain uninterrupted minimum service coverage immediately following a disaster or power outage;
- The Commission should require wireless providers to submit Communication Resiliency Plans within three (3) months and implement backup power requirements within six (6) months of the effective date of the decision;
- The Commission should require wireless providers to update Resiliency Plans on an annual basis;
- The Commission should develop a timeline by which wireless providers must implement clean energy backup generation;
- The Commission should adopt enforcement mechanisms to ensure wireless providers meet proposed requirements;
- For *wireline facilities* located in Tier 2 and Tier 3 HFTDs, the Commission should include a deadline to release a proposed decision that outlines standards for backup power by no later than September 1, 2020; and
- For areas *outside of the HFTDs*, the Commission should include a deadline to release a proposed decision that outlines standards for backup power by no later than September 1, 2020.

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Respectfully submitted,

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APPENDIX A

*(Proposed Modifications to Findings of Fact, Conclusions of Law
and Ordering Paragraphs)*

Underline indicates an addition; strikethrough indicates removal.

Findings of Fact

14. The number of wireline customers has steadily decreased as consumers begin to rely solely on wireless service. However, wireline service continues to be a necessary lifeline and an essential service to many Californians living in areas where they are not able to access wireless services or to many Californians who are distant learning, teleworking, accessing telehealth, and on-line government programs.

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

25. In 2019, Verizon utilized an array of resiliency strategies, including onsite backup power, that ~~and successfully~~ kept much of its network operational and running on backup power.

29. There is a public need to adopt a narrowly tailored and reasonable backup power requirement for wireless providers during disasters or commercial power outages and PSPS events.

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

36. Of the four providers serving the Town of Paradise, two had no macro cell sites with backup capacity beyond batteries and the other two providers had at least one macro cell site, with additional on-site backup capacity in the form of generators, as of 2019.

38. Outages were widespread for most wireless providers during the 2019 PSPS events, with outages occurring in nearly over half of the counties in the State.

45. California's electrical corporations ~~may~~ will benefit from a wireless communications network that is more resilient.

53. ~~Only~~ 8 percent of power outages at macro cell sites during the 2019 PSPS events lasted longer than 72 hours.

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

Conclusions of Law

~~48. It is reasonable for the wireless providers to maintain service through various technological means to ensure customers in Tier 2 and Tier 3 High Fire Threat Districts have access to 72-hour backup power during the upcoming wildfire season and de-energization events.~~

48. It is reasonable for wireless providers to maintain uninterrupted service FOR customers in Tier 2 and Tier 3 High Fire Threat Districts immediately following commercial power outages with a 72-hour backup power requirement achieved through various technological means.

49. It is reasonable to require the wireless providers to ensure customers and first responders in Tier 2 and Tier 3 High Fire Threat Districts have uninterrupted access to minimum service levels and coverage through 72-hours of backup power.

50. It is reasonable for the wireless providers to have ~~twelve (12)~~ six (6) months from the effective date of this decision to implement the 72-hour backup power requirement.

52. It is reasonable to require each wireless provider to submit a Communications Resiliency Plan via a Tier 2 Advice Letter within ~~six (6)~~ three (3) months from the effective date of this decision.

53. It is reasonable to require the Communications Resiliency Plan to include, but not be limited to, the following information:

- Facilities-based wireless providers shall submit a Communications Resiliency Plan pursuant to section 6.5.2 of this decision, within ~~six (6)~~ three (3) months of the effective date of this decision, to the Communications Division via Tier 2 Advice Letter that describes how the wireless 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 provide access to internet browsing for emergency notices for their customers in the event of a power failure. Each resiliency plan shall include, but is not limited to, the following information:
 - Discussion of their ability to maintain a sufficient level of service and coverage to maintain access to 9-1-1 and 2-1-1, maintain the ability to receive emergency notifications, and access Internet browsing for emergency notices in the event of a disaster or power outage, including

identifying how they maintain the resiliency of their networks, as defined in Section 6.2 of this decision

- Detailed PSPS and grid outage response plans;
- ~~Detailed Clean Generation and Diesel Generation Near and Long Term Approaches, consistent with Section 6.7.2 of this Decision~~ A proposed timeline by which the provider will install renewable energy backup at 25%, 50%, 75%, and 100% of their sites;
- 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.*, mobile cell sites and 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 CPUC rules, Cal OES regulations and California Government Code;
- Detail how backup generators comply with CARB standards;
- Provide refueling schedules;
- Provide roaming agreements;
- 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 are objectively impossible or infeasible to deploy backup power pursuant to Section 6.6.2.; and
- Identify investment plans to improve network resiliency pursuant to Section 6.6.2. (*e.g.*, deployment of redundant backhaul and deployment of fixed generators).

54. It is reasonable to allow the wireless 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 objectively impossible or infeasible to deploy backup power, and identify the basis for that determination.

55. It is reasonable to require each wireless provider to submit an updated Communications Resiliency Plan annually via a Tier 2 Advice Letter. Updated Communications Resiliency Plans should include, but not be limited to, all information included in the initial Communications Resiliency Plan.

~~55.~~ 56. It is reasonable to allow the wireless providers to use fossil fuel generation as a primary backup power resource, in the near-term, but require the wireless providers to transition to a future of renewable backup generation. It is reasonable to require wireless providers to adopt a timeline by which wireless providers will install renewable backup generation at 25%, 50%, 75%, and 100% of their telecommunication sites as a part of their Resiliency Plans.

ORDER

IT IS ORDERED that:

1. Facilities-based wireless providers shall file a Communications Resiliency Plan pursuant to Section 6.5.2 of this decision, within ~~six (6)~~ three (3) months of the effective date of this decision, to the Communications Division via Tier 2 Advice Letter that describes how the wireless 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 immediately following ~~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 their ability to maintain a sufficient level of service and coverage 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 ~~in~~ immediately following the event of a disaster or power outage, including identifying how they maintain the resiliency of their networks, as defined in Section 6.2 of this decision
- Detailed PSPS and grid outage response plans;
- ~~Detailed Clean Generation and Diesel Generation Near and Long Term Approaches, consistent with Section 6.7.2 of this Decision;~~
- A proposed timeline by which the provider will install clean energy generation backup at 25%, 50%, 75%, and 100% of their sites;
- 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.*, mobile cell sites and 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 CPUC rules, Cal OES regulations and California Government Code;
- Detail how backup generators comply with CARB standards;
- Provide refueling schedules;
- Provide roaming agreements;
- 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 are objectively impossible or infeasible to deploy backup power and identify the basis for that determination, pursuant to Section 6.6.2.; and
- Identify investment plans to improve network resiliency pursuant to Section 6.6.2. (*e.g.*, deployment of redundant backhaul and deployment of fixed generators).

We direct the Communications Division to develop and adopt standardized reporting templates as well as a submittal schedule for the Communications Resiliency Plans within 30 days from the effective date of this decision.

2. Facilities-based wireless providers shall, in their Communications Resiliency Plan pursuant to Section 6.5.2 of this decision, demonstrate their ability to meet the 72-hour backup power requirement, in Tier 2 and Tier 3 High Fire Threat Districts, consistent with Sections 6.4.2, which adopts the 72-hour backup power requirement in Tier 2 and 3 High Fire Threat Districts for the wireless providers operating in California, 6.4.4, 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 6.4.6, which requires wireless providers to ensure customers and first responders have access to minimum service levels and coverage, including; (1) 9-1-1 service; (2) 2-1-1; (3) the ability to receive emergency alerts and notification; and (4) basic internet browsing during a disaster or commercial power outage, of this decision, 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.

3. Facilities-based wireless providers shall file emergency operations plans pursuant to Section 6.8.2 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, the California Governor's Office of Emergency Services, and local emergency response agencies, as an information only filing that contains the wireless provider's: (1) emergency operations plan; (2) emergency contact information; (3) emergency preparedness exercise attestation; and (4) public communications plans.

4. Upon the effective date of this decision, the wireless providers, when implementing the requirements of this decision, shall comply with the orders of the Governor's Executive Order N-33-20, the California State Public Health Officer, and the Director of the California Department of Public Health shelter-in-place directives, social distancing directives, and/or other measures that may need to be taken in response to the COVID-19 pandemic.

5. Facilities-based wireless providers are subject to the following requirements:

- Facilities based wireless providers shall comply with the 72-hour backup power at their facilities in Tier 2 and Tier 3 High Fire Threat Districts that allows them to maintain a minimum level of uninterrupted service immediately following a power outage, pursuant to Section 6.4.2.;
- Facilities based wireless providers shall maintain uninterrupted service through various technological means to ensure that customers in Tier 2 and Tier 3 High Fire Threat Districts have access to minimum level of service immediately following an outage during the upcoming wildfires and de-energization events pursuant to Section 6.4.4.; and
- Minimum service levels and coverage shall 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, pursuant to Section 6.4.6.

6. Rulemaking 18-03-011 shall release a proposed decision that outlines backup power requirements for wireless providers serving areas outside of High Threat Fire Districts no later than September 1, 2020.

7. Rulemaking 18-03-011 shall release a proposed decision that outlines backup power requirements for wireline providers no later than September 1, 2020.

8. The Consumer Protection and Enforcement Division shall propose an enforcement program to enforce the provider's compliance with the Proposed Requirements. The program should include, but not be limited to, fines sufficient to discourage the following: (1) failure to meet the Backup Power Requirement; (2) failure to timely submit or update Resiliency Plans; and (3) failure to timely submit or update Emergency Operations Plans.

~~5. 9.~~ Rulemaking 18-03-011 remains open.