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Order Instituting Rulemaking
Proceeding to Consider Service Quality
Rules for Wireless Carriers.

Rulemaking 26-02-017

**THE PUBLIC ADVOCATES OFFICE REPLY COMMENTS ON THE
STAFF PROPOSAL**

Public Version

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I. INTRODUCTION

The Public Advocates Office at the California Public Utilities Commission (Cal Advocates) submits these reply comments on the Service Quality Rules for Wireless Carriers Staff Proposal¹ (Staff Proposal), pursuant to the *Administrative Law Judge's Ruling Issuing Staff Proposal* (ALJ Ruling), issued on August 19, 2026.

Industry comments² make a number of misleading statements on the Staff Proposal and the law. Industry parties raise objections to various forms of Commission oversight, including in an area where industry already has a statutory obligation.³ Industry comments confuse the necessity of propagation maps by conflating broadband data mapping with wireless voice service quality.⁴ The Industry comments overstate the purpose of Federal Communications Commission (FCC) 911 and Wireless Emergency Alert rules, implying that these effectively guarantee coverage for consumers to access emergency services and eliminate the need for transparent voice coverage maps that would allow consumers to make an informed choice to protect themselves during an emergency. Industry commenters make due process arguments on a Staff Proposal that affords them the right to comment. Given the breadth and gravity of the continuous mischaracterizations, industry comments should be given little weight.

Instead, the Commission should adopt the recommendations from the Staff Proposal. The following reply comments respond to industry's objections to the propagation map requirements, proposed outage metrics, network availability standards, and customer service standards.

¹ Administrative Law Judge's Ruling Issuing Staff Proposal, August 19, 2026 (ALJ Ruling), Attachment A, Service Quality Rules for Wireless Carriers Staff Proposal (Staff Proposal).

² Industry comments include those filed by Verizon, T-Mobile, AT&T, and CTIA.

³ California Code, Government Code § 53122.

⁴ *Order Instituting Rulemaking Proceeding to Consider Service Quality Rules for Wireless Carriers Rulemaking* (R.) 26-02-017, (Wireless Service Quality OIR) March 2, 2026.

II. DISCUSSION

A. AT&T and Verizon have both proffered misleading statements to the Commission regarding the source of the propagation maps included in the Staff Proposal.

During the second workshop on August 27, 2026, AT&T representative Raymond Bolaños, asked the Communications Division Staff (Staff), “Did you understand that the map on the right on page 27⁵ is an estimate of the required dBm strength to use one’s cell phone for data?”⁶ This question from Mr. Bolaños contradicts AT&T engineer James Temple who provided the same map in an AT&T permitting application to the City of Santa Cruz⁷ with an accompanying letter that explained:

“The green shaded areas of the map depict acceptable in building coverage. ***In-building coverage means customers are able to place or receive a call on the ground floor of a building.*** The yellow shaded areas depict areas within a signal strength range that provide acceptable in-vehicle service coverage. ***In these areas, an AT&T customer should be able to successfully place or receive a call within a vehicle.*** The blue and white shading depicts areas within a signal strength range in which a customer might have difficulty receiving a consistently acceptable level of service.”⁸

Mr. Temple’s statement reflects that the maps depict the available level of voice service to customers. Yet, the question from Mr. Bolaños at the workshop⁹ implies that the maps showed coverage for data.

Despite AT&T’s contradictory statements, AT&T has taken no action to correct the record since the workshop. Further, Verizon’s Opening Comments on the Staff

⁵ The slide in question from the Staff presentation was in fact on page 29, not 27.

⁶ Workshop #2 recording at 2:38:41. Available at: <https://youtu.be/ognzj9jDSV?si=Wn5GojVjpt26lVxi>

⁷ Santa Cruz County Planning Commission Application Number 221049, AT&T Mobility Proposed Base Station (Site No. CCL05741) filing (AT&T Proposed Base Station) at 28-31. Available at: <https://www2.santacruzcountyca.gov/planning/plnmeetings/PLNSupMaterial/PC/agendas/2024/20240327/007a.pdf>.

⁸ AT&T Proposed Base Station at 30 (emphases added).

⁹ Workshop #2 recording at 2:38:41.

Proposal¹⁰ cite this very statement from Mr. Bolaños and treat it as fact. Unless AT&T is able to resolve this contradiction, the Commission should strike Mr. Bolaños’s statement from the record along with any statements that subsequently rely on his misleading statement.

B. Industry Parties conflate data propagation maps with the purpose of this proceeding.

This rulemaking seeks to address possible rules related to the service quality of mobile voice services.¹¹ Mobile voice services focus on the ability of individuals to use their mobile phone to place or receive a call over the mobile network and have it connect to another mobile phone user on that same network, a mobile phone user on a different network, or a phone that is in some way connected to the public switched telephone network (PSTN) via copper landline or through Voice over Internet Protocol (VoIP). The proceeding is *not* addressing mobile service data communications; and that is important to remember because the requirements for mobile voice service are more stringent than those of mobile data services.

“Having service” is often correlated to the number of bars that customers see on their mobile devices.¹² While the number of bars on a phone can be helpful in determining if *any* signal is available for use, it is not useful in determining what that signal can be used to transmit. On the first page of the AT&T Proposed Base Station filing,¹³ there is a chart provided by Hammett & Edison, Inc., consulting engineers, that lists a range of wireless service bands and the transmission frequency related to those service bands. The purpose of the chart is to show FCC radiation exposure limits based

¹⁰ Verizon at 24.

¹¹ Wireless Service Quality OIR at 1; *Order Instituting Rulemaking Proceeding to Consider Service Quality Rules for Wireless Carriers Assigned Commissioner’s Scoping Memo and Ruling*, (Scoping Memo) at 2. June 3, 2026.

¹² See R.26-02-017 Public Comments from Amy Gardiner, Lisa J., Nora Gutierrez, Daniel Young, Lisa Morris, Danny C, Laura Sorich, Alex Nevestich, Noel Gay, Jennifer Engels, Matthew Henry, Pamela Harford, Christine Evans, Sheena Gurai, Ravi S, Yamillet Dominguez, Paul Grace, Gery Milano, Robert Hall, Kevin T, Philip Papadopoulos, Shannan Burkley, Kerry Bell.

¹³ AT&T Proposed Base Station at 1.

on the frequency bands and the power limitations to preserve public safety by limiting the exposure to radiation. While this purpose is outside the scope of the proceeding, the chart illustrates different frequencies are used for different functions.

The reason that different frequency bands are used for different functions is because of the characteristics of the frequency waves. Lower frequencies have a greater ability to penetrate walls, while higher frequencies are much more likely to either be absorbed or diffused by physical structures. A connection to a higher frequency can therefore be less continuously reliable because it is more susceptible to interference. That continuous reliable connection is the key to wireless voice communication. Intermittent breaks in transmission are likely to result in dropped calls or a failure to connect the call at all. The loss of data packets is something most consumers can manage by refreshing a web page or waiting for their video stream to buffer. However, as a matter of public policy, California cannot accept the same for voice communications. This is particularly true in the emergency context of a 911 call where the dropped call could result in grievous harm, including lost lives.

Each wireless carrier assigns different transmission frequencies throughout a region. There is no one particular uniform set of transmission standards, because wireless carriers own the rights to a fragmented set of licenses. Furthermore, each frequency—whether it is a low or high frequency—affects the range of the cell tower as well as its ability to penetrate obstacles. These differences, therefore, affect the availability and reliability of mobile voice coverage and can vary throughout the state.

The National Telecommunications and Information Administration (NTIA) United States Frequency Allocation Chart¹⁴ shows that mobile service providers license and operate spectrum in the Ultra High Frequency (UHF) spectrum,¹⁵ up through the microwave spectrum. The operating frequency dictates the physical properties and

¹⁴ National Telecommunications and Information Administration United States Frequency Allocation Chart. Available at: <https://www.ntia.doc.gov/files/ntia/publications/2003-allochrt.pdf>.

¹⁵ Ultra high frequency spectrum is from 3 megahertz (MHz) to 30 gigahertz (GHz).

limitations of the waveform and—consequently—the distance and reliability of the signal. Certain frequencies are better suited for voice transmission because they are less likely to encounter interference that results in a dropped call. Other frequencies are better suited for data because intermittent coverage would not degrade the service being accessed, such as web browsing. Carriers allocate their frequencies in recognition of these differences and their applicability to voice service versus data service.¹⁶ The FCC National Broadband Map data is assembled based on the submissions of the service providers, as required under statute.¹⁷ However, the focus of the statute is on data speeds, not reliable voice coverage.¹⁸ Neither the FCC nor any state agency currently has a mobile voice coverage map that takes into account the variables that determine availability and reliability of voice services.

The FCC attempted to address the need for improved wireless voice coverage mapping when it created the FCC’s Mobile Coverage Map.¹⁹ Unfortunately, that map has not been updated since 2021.

The distinction between signal strength for data transmissions and signal strength for voice transmissions is important in this proceeding. It is reasonable to conclude that a voice call would be of high quality if the communication does not experience audio dropouts, audio distortions, or call drops. A call drop is more likely to occur when the signal strength is weaker. Per Mr. Temple in the AT&T Proposed Base Station filing, “[a]ny area in the yellow, blue, or white category is considered inadequate service

¹⁶ Common usage of the frequency ranges by mobile service providers: 600MHz – 5G, sometimes phone and data; 700MHz – voice and 4G LTE data; 850MHz – voice and data; 1700MHz – phone transmission; 2100MHz – phone reception; 1900MHz – voice and data; 28000MHz/39000MHz – 5G. 2020 VERSION: *What frequencies are used by different cell phone companies?* The Solid Signal Blog, Stuart Sweet, September 9, 2020. Available at: <https://blog.solidsignal.com/tutorials/2020-version-what-frequencies-are-used-by-different-cell-phone-companies/>.

¹⁷ 47 C.F.R. § 1.7004(c)(3).

¹⁸ 47 C.F.R. § 1.7004(c)(3)(i).

¹⁹ FCC Mobile LTE Coverage Map. Available at: <https://www.fcc.gov/BroadbandData/MobileMaps/mobile-map>. Voice service in this map was considered serviced if there was a 90% probability of coverage at the edge of the area with a maximum resolution of 100 meters.

coverage and constitutes a service coverage gap.”²⁰ Given that Mr. Temple is referencing the propagation maps that indicate only signal strength, it is reasonable to conclude how impactful weaker signal is on the ability of a consumer to place or receive a call.

Audio dropouts or distortions are also possible consequences of poor signal strength. When a person is making a call using wireless service, the phone is converting that person’s voice into packets that will then be transmitted on the wireless network. The packets are sequential and the timing of the packets reaching their destination is vital to an intelligible transmission. If there is a delay in the timing between packets, the person receiving the call can hear it as though there is a break, or drop out, in the person speaking. That break can occur because, during the call, the signal strength for the individual dropped below a reliable threshold to maintain a continuous call. While the speaker kept talking, and the device kept transmitting to the network, the connection to the network was too weak for the transmission to be properly sent—all resulting in packets of audio not being sent to the person receiving the call.

For a hypothetical example, in the event of an emergency, this can result in a 911 operator hearing, “I need help! . . . at 123 Main Street in Please come quick!” The caller has no idea that the transmission is not being received by the 911 operator until the operator asks for the information to be repeated. If the caller can move to a new location where their signal strength is greater, this can be alleviated. However, relocating for the caller may not always be possible.

In contrast, a data transmission does not necessarily have the same timing requirement issue, though it will depend on the type of data and the network protocol being used. A user loading a website may have reduced signal strength and when the transmitting web server does not receive a response from the device, the web server can retransmit the data packets that were “lost” or otherwise not received on the device.²¹

²⁰ AT&T Proposed Base Station at 30.

²¹ Institute of Electrical and Electronic Engineers (IEEE), Packet Loss. Available at: <https://technav.ieee.org/topic/packet-loss/>.

Consumers should be able to clearly understand where they are most likely to have available voice service, and consumers should not be solely reliant on the bars on their phones that are subject to no standard whatsoever.²²

C. Industry’s assertions about the FCC’s decision-making process have no bearing on the Commission’s decision-making for voice coverage propagation maps.

Multiple industry parties assert that the FCC considered and declined to adopt the use signal strength of available voice service using decibel-milliwatt (dBm) power levels at the consumer device, represented as Reference Signal Received Power (RSRP).²³ This assertion is inaccurate and incomplete.

Verizon’s comments quoted the FCC’s assertion: “We agree with the majority of commenters that, given the variety of factors that may affect signal strength, we should not adopt a standardized minimum signal strength parameter value.”²⁴ In contrast to the Staff Proposal’s goal of requiring that facilities-based wireless service providers be required to report RSRP levels so that customer can easily see where voice services are available, the FCC declined to set “standardized minimum signal strength parameter value”—meaning that the FCC declined to set a threshold signal level that carriers had to meet in order to consider an area properly served by *broadband* data services.

Verizon’s comments go on to boast that the FCC recognized Verizon’s assertion that “[b]ecause there is no single RSRP value that is always the ‘correct’ RSRP for a given speed target, the Commission cannot standardize a minimum RSRP value.”²⁵

²² SureCall, *How Accurate are the Bars on Your Phone?* Published December 7th, 2016. Available at: <https://surecall.com/surecall-cell-phone-signal-booster-blog/how-accurate-are-the-bars-on-your-phone/>. (“While they do indicate signal strength, it’s up to the smartphone manufacturer to use whatever algorithm they want to measure that strength. **There is no standard unit of measurement for a cell phone’s bars.** So while one phone is showing 2-3 bars another carrier’s phone could be showing 4-5 bars.” (emphasis added))

²³ Verizon at 24-25; CTIA at 21-23; T-Mobile at 31-33.

²⁴ *In the Matter of Establishing the Digital Opportunity Data Collection Modernizing the FCC Form 477 Data Program*, WC Docket Nos. 19-195, 11-10, Third Report and Order, FCC 21-20 (FCC 21-20) (Rel. Jan. 19, 2021) at ¶¶ 37-38.

²⁵ Verizon at 24.

Again, this assertion compares apples to oranges. First, the Staff Proposal is *not* setting a minimum threshold that must be met by the carriers. Second, the above comment from the FCC refers to a given speed target and its association with signal strength. Broadband data speed targets have nothing to do with the matters before the Commission, given that this proceeding is addressing voice communications. As noted above, the most important factor in voice communication is the reliability of the connection, which does have a direct correlation to the signal strength available to the customer. If the signal is too weak, then the call is more likely to be susceptible to audio dropouts and call drops.

D. RSRP Reporting is already a Federal Requirement.

The industry asserts that the FCC rejected RSRP. But it must be noted that the same FCC paragraph Verizon cites²⁶ also states that carriers are already required to submit such RSRP maps to the FCC based on the wireless technology used (e.g., 3G, 4G LTE, 5G, 5G-NR).

“We require mobile providers to submit, for each propagation map they submit, a second set of maps showing the RSSI or RSRP signal levels in the coverage areas for each technology. . . . Requiring providers to disclose signal strength data will help Commission staff verify propagation model coverage predictions. Thus, for each 4G LTE or 5G-NR propagation map that a provider submits, the provider also must submit a second set of maps showing RSRP in dBm as would be measured at the industry-standard of 1.5 meters above ground level (AGL) from each active cell site. . . . Adopting this requirement will help the Commission verify service coverage predictions by providing a visualization of the underlying signal strength as the signal propagates.”²⁷

This RSRP broadband data map reporting is a statutory requirement.²⁸ Again, the difference is that the RSRP reporting required by the FCC is based on the technology type, but the focus of this current proceeding is to ensure that customers have reliable

²⁶ FCC 21-20 at ¶ 37.

²⁷ FCC 21-20 at ¶ 37.

²⁸ 47 C.F.R. § 1.7004 (c)(3)(v).

access to voice services. This means that the requirement proposed by the Staff Proposal is slightly different than that of the already existing FCC obligation. The Staff Proposal's requirement focuses on the frequencies that the carriers license and use for the purpose of transmitting voice calls. The Staff Proposal does not require any type of technology to facilitate the connection. The Staff Proposal merely seeks confirmation that the signal strength used to facilitate voice communication, across all frequency bands, is reliable and adequate for customers to place a call inside their home, particularly in the event of an emergency when customers need to reach 911.

E. FCC rules requiring transmission of 911 calls and Wireless Emergency Alerts (WEAs) are a public safety backstop, not an alternative to demonstrating that reliable service is available to customers using propagation maps.

Customers must have reliable voice service in the event of public emergencies. The fact that the FCC enacted rules²⁹ to ensure that regardless of whether a customer is subscribed to a given wireless carrier or has any subscription at all, if a mobile device has power and can connect to a cell site and the user is able to dial 911, that call must be transmitted to the Public Safety Answering Point (PSAP).

Industry states that due to these FCC rules, the Staff Proposal's requirement to provide propagation maps, under the concern for public safety, is improper.³⁰ The Industry's assertion insinuates that the requirements for a wireless carrier to transmit any 911 call it receives replaces the need for consumers to be able to choose a wireless carrier that they know can support them in the event of an emergency.

Consider the conditions that existed when the FCC made this requirement. Customers would sign up for a mobile wireless service and be unable to reach 911 in the event of an emergency because their wireless service was unavailable to them at a specific moment in time based on their location. This situation might also mean that the

²⁹ *FCC Wireless 911 Service* available at: <https://www.fcc.gov/consumers/guides/wireless-911-service>.

³⁰ AT&T at 33; CTIA at 25-26; T-Mobile at 8; Verizon at 15.

customer would have to change service providers to one that demonstrates available coverage in areas where the customer is most concerned about reaching 911. Given the importance of being able to reach 911, the FCC chose to impose these transmission requirements for all 911 calls. This requirement filled in for gaps where coverage from the customer's chosen provider was unavailable when emergency calls were needed.

Instead of recognizing the reasonable need for consumers to be properly informed, carriers rely on the fact that the 911 call would be transmitted by any available carrier. Yet, customers have not chosen to do business with just any carrier. They have elected to do business with one specific carrier. They should be able to rely on information that the carrier has made available to demonstrate that connecting to 911 from inside their home is possible. Consumers should not be required to hope that a different carrier might have a cellular site nearby that can provide them a connection to 911. Consumers should be able to clearly see which carrier is most able to support them in the event that an emergency strikes—in addition to knowing that the federal rules dictate that a 911 call must be transmitted by any available wireless service. Treating the failsafe requirement as sufficient erroneously allows carriers to absolve themselves of the obligation to properly inform customers of where service is available simply because some other service might be able to step in when consumers need it most.

F. The statement that wireless voice service propagation maps raise national security concerns is a red herring and should be given no weight by the Commission.

During the second workshop, as part of the discussion regarding propagation maps, AT&T representative Raymond Bolaños raised concerns about carriers being required to publish propagation maps online. He suggested that doing so means “jeopardiz[ing] critical infrastructure.”³¹ Mr. Bolaños went on to suggest that demonstrating the strength of coverage presents “very real national security and local

³¹ Workshop #2 at 2:44:00 to 2:46:00.

security issues.”³² These statements overstate the requirements in the Staff Proposal, have not been supported anywhere in the opening comments of any industry party, and should be granted no weight by the Commission in its consideration of imposing propagation map rules.

1. AT&T’s statement in the second workshop overstates the Staff Proposal’s recommendations about what data must be reported in propagation maps.

The statements above by Mr. Bolaños are predicated on a misreading of the Staff Proposal’s recommendations: that as part of the proposed propagation map rule, carriers must identify the location of each cell site.³³ This argument is false. The Staff Proposal does not require that the propagation map include the location of infrastructure.³⁴ The recommended requirement is that wireless carriers “post signal propagation maps on their public websites where they advertise or provide wireless coverage maps. These signal propagation maps should distinguish expected service conditions using clear color categories based on signal strength thresholds.”³⁵ There is nothing in the Staff Proposal stating that the propagation maps must identify the location of the infrastructure.

2. Rejecting the Staff Proposal’s wireless propagation map recommendation on the basis of national security concerns is contrary to the underlying purpose of classifying telecommunications infrastructure as critical infrastructure.

Telecommunications networks are identified as critical infrastructure under Presidential Policy Directive 21 because they fall under the heading where any “hazards that could have a debilitating impact on national security, economic stability, **public health and safety**, or any combination thereof. These efforts shall seek to reduce

³² Workshop #2 at 2:44:00 to 2:46:00.

³³ Workshop #2 at 2:44:00 to 2:46:00.

³⁴ Staff Proposal at 26-27 and 45-47.

³⁵ Staff Proposal at 45.

vulnerabilities, minimize consequences, identify and disrupt threats, and hasten response and recovery efforts related to critical infrastructure.”³⁶

The stated purpose of classifying infrastructure as critical is to protect public health and safety, not to protect the infrastructure for the mere sake of the infrastructure. To allow the carriers to obfuscate the accurate coverage available to their customers actually goes against these policy goals because it creates a scenario where the public is unable to access public safety measures, such as calling 911, or receiving wireless emergency alert notifications.

To allow the carriers to use national security as a shield to hide behind so that they do not have to demonstrate where accurate voice coverage is available directly contradicts the purpose of the national security policy at its core—protecting public safety.

3. If overlapping coverage from cell sites is widely available, then the Staff Proposal’s wireless propagation map recommendation would mask the location of any critical infrastructure locations.

In AT&T’s Opening Comments, they address concerns about the Network Availability standard from the Staff Proposal and inquire how areas with overlapping cell site coverage will be considered if an individual cell site were no longer available.³⁷ Using the same logic, AT&T’s statement— that providing propagation maps would raise national security concerns—fails scrutiny.

The propagation maps recommended by the Staff Proposal would require that the wireless carriers publish maps of available voice service coverage. These maps would require that the carriers show the availability of that coverage in a holistic manner, not from a specific cell site location. This means that the map would show the unique colors

³⁶ Presidential Policy Directive 21. Available at: <https://obamawhitehouse.archives.gov/the-press-office/2013/02/12/presidential-policy-directive-critical-infrastructure-security-and-resil> (emphasis added).

³⁷ AT&T Opening Comments at 40.

where signal strength was at or above -84 dBm, -100 dBm, and -120 dBm.³⁸ If the cell sites overlap and signal is continuously available at or above the -84 dBm threshold, then anyone looking at the map would be unable to identify a specific location of a cell site because the coverage would be continuous. In more urban areas, where cell sites are more densely located, the potential for a propagation map to always be above the -84 dBm threshold exists. In such a case, the map would be entirely unhelpful in identifying the location of critical infrastructure.

4. Where cell sites do not have overlapping coverage there is no additional risk to critical infrastructure due to the nature of propagation maps.

In some more remote areas of the state, there will be times that overlapping coverage from multiple cell sites is not available and consumers will see maps that might more closely reflect the propagation map included in the Staff Proposal that demonstrated a proposed location of one isolated cell site.³⁹ Even in these instances, any risk to national security or critical infrastructure is minimal because of the nature of the propagation maps themselves.

Propagation maps are visual representations of signal strength based on a variety of parameters including equipment type, equipment mounting height, equipment mounting angles, power output, surrounding terrain, and surrounding vegetation. Each of these will affect the propagation map because terrain and vegetation will inhibit the ability of the transmission to spread outward from the cell site. Mounting height will determine how impactful any local terrain or vegetation might be. If the cell site is located in a heavily wooded area and the equipment is mounted lower to the ground, the coverage area will be different than if that equipment was mounted at a higher point.⁴⁰

³⁸ Staff Proposal at 47.

³⁹ Staff Proposal at 47.

⁴⁰ AT&T Proposed Base Station Exhibit A at Exhibits 3-6. This is in the AT&T Proposed Base Station filing as Mr. Temple provided multiple slides showing what available voice coverage would be depending on the height of the approved tower.

Due to the effects of the terrain, vegetation, and variables about the equipment, when the propagation map is produced it is unlikely to reflect a bullseye, showing differently colored concentric circles and the cell site at the very center of them. Instead, the propagation will indicate the highest signal strength nearest the cell site and coverage will be steered by the surrounding geography.

5. Requiring that carriers publish the Staff Proposal's recommended propagation maps adds little to no risk to critical infrastructure, because RSRP levels can be measured using non-specialized equipment.

Both Android and Apple smartphones are capable of showing users, in real time, the RSRP signal strength they are receiving. This measurement is found in the settings menu of Android phones, and the Field Test Mode for Apple devices. This ability means that, without any specialized equipment, the phone itself can be used to see the signal strength available from the cell site that the user is currently connected to. The user can then simply keep that screen open on the device and travel around any area and notice that as the user gets closer to a cell site, the signal strength will increase. Therefore, Propagation maps provide little to no information that would not already be available to the public.⁴¹

6. If carriers are to be believed, publishing their primary source information on the signal strength available to customers is a threat to national security, but other maps providing similar information are not.

During the second workshop, Leon Bloomfield, attorney for T-Mobile, implied that carriers providing propagation maps for signal strength are unnecessary because that information is already available from various third-party sources.⁴² In T-Mobile's

⁴¹ Furthermore, because of the nature of RF transmissions requiring line of site for the best signal quality, the cell sites in question must be visible to the public. Merely driving down a highway or main thoroughfare in a town will provide visual confirmation on the location of cell sites.

⁴² Workshop #2 at 2:48:00 – 2:50:00.

Opening Comments, they reiterated this same position.^{43,44} This seemingly is in direct contradiction to the claim that propagation maps pose a threat to national security.

Further, there is a website called www.antennasearch.com that allows a user to search for the location of antenna towers in the vicinity of their address. The website will not only tell visitors how many towers are nearby, locates them on the map, and tells them which company owns the tower.

Finally, any owner of an antenna structure is required to register that structure with the FCC if that structure “requires notice of proposed construction to the Federal Aviation Administration (FAA) due to a physical obstruction. In general, this includes structures that are taller than 200 feet above ground level or that may interfere with the flight path of a nearby airport.”⁴⁵ This requirement shows that infrastructure information is already available to the public because of this FCC requirement.

G. Third-Party or crowd-sourced signal propagation maps are not a sufficient equivalent for the Staff Proposal’s recommended signal propagation map requirements.

As mentioned above, T-Mobile and its attorney have both raised the point that requiring carriers to provide propagation maps is unnecessary because there are already third-party or crowd-sourced signal propagation maps that exist.⁴⁶ These assertions seek

⁴³ T-Mobile at 34-35.

⁴⁴ The merits of this claim are addressed in Section G of these Reply Comments. Here, Cal Advocates is discussing only the contradictory stance that only certain propagation maps, those the Staff Report recommends be provided directly by the carriers, pose a national threat risk.

⁴⁵ FCC Antenna Structure Registration (ASR) – Overview. Available at: <https://www.fcc.gov/wireless/support/knowledge-base/antenna-structure-registration-asr-resources/antenna-structure>.

⁴⁶ Workshop #2 at 2:49:54; T-Mobile at 34-35.

to equate data that is unvalidated⁴⁷ and compiled by third parties from data volunteered by users⁴⁸ to the primary-source information that is held by the carriers.

Additionally, the frequency of updates to third-party maps is unclear. The organizations that maintain these crowd-sourced maps are free to update them whenever they choose. However, the requirements set forth in the Staff Proposal state that carriers will be required to update their maps annually, at a minimum.⁴⁹ Cal Advocates recommends that this requirement either align with the FCC requirement of biannual reporting⁵⁰ or quarterly reporting to provide updated, accurate data to consumers.

If the carriers are the owners of the most up-to-date and accurate information regarding signal strength metrics, and the customers have a contractual business relationship with these carriers, then customers should be able to get that information without needing to use third-party information that may be less accurate.

H. The Commission should adopt the CAL OES Community Isolation Outage Standard and reject wireless carriers' claims that it is unnecessary and should not be required.

Wireless carriers argue that the Staff misunderstands the California Governor's Office of Emergency Services (CAL OES) Community Isolation Outage data, claiming (1) that an outage does not mean a customer cannot access 911; and (2) that the Cal OES Community Isolation Standard is entirely unnecessary, given that long-term outages are declining.⁵¹ These statements fail to address the benefits of the Cal OES Community Isolation Standard as described in Cal Advocates Opening Comments.⁵² The

⁴⁷ FCC 21-20 at ¶ 37, "Requiring providers to disclose signal strength data will help Commission staff verify propagation model coverage predictions."

⁴⁸ Coveragemap.com offers a crowd-sourced map allowing users to submit their own information. Available at: <https://coveragemap.com/crowdsourced-map>.

⁴⁹ Staff Proposal at 46.

⁵⁰ 47 C.F.R. § 1.7004(a).

⁵¹ T-Mobile at 12; CTIA at 25; AT&T at 27.

⁵² *The Public Advocates Office Opening Comments on the Staff Proposal*, (Opening Comments of Cal

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Commission should reject the wireless carriers' arguments and adopt the Staff Proposal's CAL OES Community Isolation Standard.

1. The Commission should reject carriers' claims that CAL OES Community Isolation Outage data is unnecessary due to existing FCC rules.

The wireless carriers claim that the Staff misunderstands CAL OES Community Isolation Outage data, detailing that customers will still be able to access 911 if a carrier site is down during a wireless community isolation outage.⁵³ The FCC's basic rules are designed as a protection for customers but should not be the only requirement during long-term outages.⁵⁴ Customers pay for wireless service from their carrier and should be able to see exactly where that coverage will be reliably available. It is unreasonable to force consumers to rely on another wireless carrier's service. The consumer would have no relationship with that other wireless provider, and would have no knowledge of its coverage area. If a wireless provider's cell site goes down and the customers cannot connect to their subscribed provider, that is effectively an outage. T-Mobile additionally claims that Staff insinuated that there are "numerous communities with only one carrier available" which is "unsupported" by the record.⁵⁵ However, there are examples in public participation hearings that demonstrate otherwise.⁵⁶ The CAL OES Community

Advocates) R.26-02-017, at 1-2 ("Communications Division Staff (Staff) correctly identifies that wireless community isolation outages should be restored within 24 hours, consistent with Plain Old Telephone Service (POTS) and Voice over Internet Protocol (VoIP) outage repair standard of General Order (GO) 133-E. . . . Wireless community isolation outages affect entire communities."). September 8 2026.

⁵³ T-Mobile at 12 ("a Cal OES outage does not mean that customers are left without access to 9-1-1"); Opening Comments of CTIA at 25 ("The Staff Proposal Neglects the Impact of Carrier Cooperation in Ensuring Consumers can Reach 911 and Receive WEAs, and Communicate During Disasters.").

⁵⁴ 47 C.F.R. § 9.10; see also "The FCC's basic 911 rules require wireless service providers to transmit all 911 calls to a PSAP [Public Safety Answering Point], regardless of whether the caller subscribes to the provider's service or not." Available at: <https://www.fcc.gov/consumers/guides/wireless-911-service>.

⁵⁵ T-Mobile at 13.

⁵⁶ Reporters' Transcript (RT), Public Participation Hearing, July 15, 2026, Vol. 1. Morgan Pike: "I'm calling about cell service in Mendocino County. For many of us, cellular is the only communication optioning. Until recently, we had decent coverage through U.S. cellular. However, in early 2026, T-

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Isolation Outage Standard is necessary to ensure providers comply with rules and restore network service quality to ensure customers have access to communication services.

2. The Commission should reject providers' claims that the CAL OES Isolation Standard is unnecessary due to declining outages.

Wireless providers additionally claim that there is no need for the CAL OES Community Isolation Standard because outages over 24 hours have declined in the past years.⁵⁷ Providers rely on aggregating percentages instead of the individual communities that are affected by outages, which does not correctly depict how entire communities are affected by outages.⁵⁸ T-Mobile claims that there were only a “fraction” of outages longer than 72-hours from 2023-2025.⁵⁹ The “fraction” affected 349 communities from 2023 to 2025; and the average outage duration lasted 13.8 days in 2023, 6.8 days in 2024,

Mobile acquired U.S. cellular and has apparently been decommissioning the infrastructure, as many areas in Mendocino County no longer have and cell service, whatsoever. This is true even for those customers that have transitioned to T-Mobile. I don't know if the CPUC can require T-Mobile to maintain its U.S. cellular infrastructure. But at a minimum, T-Mobile should be public and transparent about their intentions in Mendocino County.” (107-108); Michael Sutter: “Hi, Michael Sutter. Fire Chief (inaudible) fire in Point Arena, California. We had good service with U.S. Cellular for 20-plus years. And they sold out to T-Mobile. And when that happened, we've lost probably 50 percent coverage in our area. They decommissioned some towers. I finally got them to admit to that. And I will only go on one story. Two days after they decommissioned the towers, a lady's residence caught on fire at about 2:00 in the morning. She was unable to use her phone, had to run up the street probably half a mile to get to an area where there was a house that had a phone that would work. She had phone service up until two days prior, when they decommissioned the tower. And her house burned down. And so, I'm frustrated with the fact that this was a system that had worked perfectly. And they just came in, decommissioned towers, and now we have no service. So, I'm hoping that you can figure out what to do with them. I appreciate your time.” (63-64). Lori Pettigrew: “In February 2026, our cell service abruptly ended. I later learned that the towers in the area had been decommissioned without any warning to the community or myself, just no cell service. So that means no 911, no fire response, no medical, just nothing. To this day, we have nothing.” (98-99).

⁵⁷ T-Mobile at 14-15 (“The Cal OES data provided by the carriers confirms that the aggregated uptime rate for wireless providers is approximately 99.8%. . . . outages over 72 hours are only a fraction of the already modest number of outages[.]”); Opening Comments of CTIA at 4(“The Staff Proposal's portrayal of the data ignores that the breadth of community isolation outages is declining year-over-year[.]”); Opening Comments of AT&T at 27.

⁵⁸ Verizon at 15; CTIA at 8.

⁵⁹ T-Mobile at 15.

and 10 days in 2025.⁶⁰ Additionally, outages that exceeded 24 hours in duration from 2023 to 2025 affected 1,349 communities.⁶¹ Even a small percentage of outages is still too high for those left without service. The CAL OES Community Isolation Standard will benefit customers by ensuring wireless providers comply with the rules.

Wireless providers argue that many outages are due to backhaul and not all outages are emergency related.⁶² In consideration of this, the Commission should adopting exemptions from General Order (GO) 133-E for the Cal OES Community Isolation Standard, as recommended by The Utility Reform Network (TURN), the Rural County Representatives of California (RCRC), and the Center for Accessible Technology (CforAT), especially in regard to the exemptions remaining consistent with existing Commission decisions about emergency preparedness and backup power requirements.⁶³

⁶⁰ Staff Proposal at 38.

⁶¹ Staff Proposal at 38.

⁶² Verizon at 16; T-Mobile at 16; AT&T at 59; CTIA at 8.

⁶³ *Opening Comments of the Rural County Representatives of California and Center for Accessible Technology on Staff Proposal*, at 7, September 8, 2026 (“Specifically, RCRC and CforAT propose that outage-related customer service obligations for facilities-based wireless providers should remain consistent with existing Commission decisions regarding emergency preparedness and backup power requirements. The Commission has already determined that facilities based providers serving Tier 2 and Tier 3 High Fire-Threat Districts (HFTDs) may not rely on disaster related commercial power outages as an exemption during the first 72 hours following an outage because those providers are already required to maintain backup power capabilities. Accordingly, any outage related customer service reporting, restoration, or performance obligations adopted in this proceeding should be clarified to remain aligned with those existing resiliency requirements.”); *Opening Comments of The Utility Reform Network on the August 2026 Staff Proposal*, at 5-6, September 8, 2026. (“General Order (“GO”) 133-E includes a list of exemptions from the POTS and VoIP Outage Repair standard, including Public Safety Power Shutoffs and unplanned loss of commercial power. GO 133-E specifically states that carriers in Tier 2 and Tier 3 High Fire Threat Districts cannot claim exemptions due to power outages, and the Commission should include the same prohibition in the Community Isolation Outage Standard.” (footnote omitted)).

I. The Commission should adopt the Staff Proposal Customer Service Standard and reject providers' claims that the standard is unreasonable.

Wireless service providers claim that the Customer Service Standard put forth in the Staff Proposal is unworkable,⁶⁴ that the 30-minute callback is unreasonable,⁶⁵ that the postal mail requirements and 90-day billing requirements are unsupported,⁶⁶ and that the Plain Old Telephone Service (POTS) and Voice Over Internet Protocol (VoIP) GO 133-E standard is not necessary for wireless providers.⁶⁷ Cal Advocates addresses these arguments in opening comments.⁶⁸ The Customer Service Standard should be required for wireless providers with the clarifications in the Staff Proposal⁶⁹ because customers should receive the same customer service standard across all technologies, especially given that wireless carriers provide service to more customers than POTS and VoIP.

Carriers argue that the Customer Service Standard clarification of the 60-second response window would degrade customers' experience.⁷⁰ Carriers argue that including the option to speak to a customer service representative in the first prompt would make the 60-second response window moot because the carrier would have to provide the option to speak to a customer representative immediately, bypassing the interactive voice response (IVR) system completely.⁷¹ However, the Staff stated in the August Workshop

⁶⁴ CTIA at 17-18; Verizon at 3; AT&T at 5 (“Wireless service providers already compete vigorously on customer care satisfaction, and that competition gives wireless service providers strong market-based incentives to maintain high service quality—without the need for any prescriptive government mandate.”); T-Mobile at 24.

⁶⁵ T-Mobile at 28; Verizon at 6-8; AT&T at 13; CTIA at 19.

⁶⁶ T-Mobile at 30; AT&T at 15-16.

⁶⁷ T-Mobile at 30; Verizon at 9; AT&T at 5-6; CTIA at 19-20.

⁶⁸ Opening Comments of Cal Advocates at 6-9.

⁶⁹ Staff Proposal at 43-44.

⁷⁰ AT&T at 6; Verizon at 6; CTIA at 18.

⁷¹ CTIA at 18 (“By requiring providers to create an offramp directly to an agent that avoids the IVR, Clarification #1 becomes moot, making ‘the start of the call’ and ‘the time a customer asks to speak to an

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that, of the multiple options provided in the first prompt, one should be an option to speak to a live representative.⁷² This requirement does not mean that carriers must provide the option to speak to a customer service representative *immediately*. Instead, the option could be provided after the IVR system lists potential issues the customer may have. The Staff’s statement in the workshop allows carriers to provide menu options in the first prompt that could direct customers to the correct query and representative while also providing an option for the customer to speak to a live agent. The benefit of allowing the customer to speak to a live representative within the first prompt is that the customer can access customer representatives instead of working through multiple prompt menus.⁷³ Additionally, as stated in Cal Advocates’ opening comments, the menu of options in the first prompt could include a distinguishing feature between (1) service or technical problems and (2) billing and account inquiries, so that customers are directed to the correct representative.⁷⁴

agent’ a distinction without a difference for all callers that select such option initially.”); Verizon at 5 (“If a prompt for the option to speak to a live agent is required as soon as the IVR connected, customers would be denied the benefit of Verizon’s efficient and personalized IVR process designed to route customers to the representative best suited to meet the individual’s specific issues.”); AT&T at 6 (“This is not a ‘clarification,’ but is instead a wholly new substantive requirement that turns customer care efforts on its head because customers will choose the live agent option and bypass the IVR system that get them to the right representative or allow them to address their issue without talking to a representative.”).

⁷² Workshop #2 at 1:58:00- 1:59:59 (quotes are not exactly verbatim):

T-Mobile Regulatory Director: What does “at the first prompt” mean to the staff?

Wylen Lai: I think it means when you call, you get multiple options and we just want those options to include the option to speak with a live representative.

T-Mobile Regulatory Director: Okay so not necessarily the first words that you hear but within the first menu of options, right? . . . For us it is incredibly important that we identify why the customer is calling initially, right? So we can send them to an appropriate representative who handles that type of issue because the industry is so complicated, right? Their issues could involve technology, they could involve service, they could involve billing, right? And all of those people are specialists. So sending them to the first live customer service representative would probably slow down the process—well, it would—it would slow down the process considerably. They would wind up getting transferred over and over again.

⁷³ Opening Comments of Cal Advocates at 6.

⁷⁴ Opening Comments of Cal Advocates at 6-7.

Verizon and AT&T claim that sophisticated IVR systems can answer customers' questions without the need to request a live representative.⁷⁵ Though there may be some simple questions and general information an IVR can answer (monthly balance, bill payments, account information), the IVR cannot replace a live customer service representative when more complex matters such as billing disputes, inaccurate account information, or technical issues must be addressed. The Commission should follow the existing requirement in D.25-09-031, which says that chat bots and other automated response systems may provide general information but do not replace a customer representative response.⁷⁶ Customers must be able to speak to a live representative, as the clarifications in the Staff Proposal provide.

J. The Commission should adopt network availability by Public Use Microdata Areas (PUMA) standard with Cal Advocates' recommended modifications.

An enforceable network availability standard is essential to hold carriers accountable, drive equitable infrastructure investment, and protect public safety. Without a network availability metric, secondary performance metrics become irrelevant.

The Commission specifically seeks ways to modify service quality standards for wireless voice and evaluate impacts of service quality challenges on Environmental and Social Justice (ESJ) communities.⁷⁷ Staff's proposed Network Availability by PUMA Standard⁷⁸ directly addresses these questions by establishing localized, enforceable rules that expose chronic outages routinely obscured by broad statewide averages. Furthermore, adopting PUMAs as the baseline geographic unit allows the Commission to correlate network performance with sociodemographic data and identify vulnerable communities experiencing disproportionate downtime. This ability is an invaluable tool

⁷⁵ Verizon at 6; AT&T at 3.

⁷⁶ Opening Comments of Cal Advocates at 8; D.25-09-031, Decision Adopting General Order 133-E, September 18, 2025 at 155.

⁷⁷ Scoping Memo at 2.

⁷⁸ Staff Proposal at 40.

the Commission can utilize to advance its own ESJ Action Plan.⁷⁹ Therefore, the Commission should adopt The Network Availability by PUMA Standard to ensure targeted and measurable service quality improvements in the communities that need them most.

1. The Commission should reject carrier claims that no serious outage or network availability problems exist in California.

Carriers consistently argue that there is no basis to establish a network availability standard, because their wireless networks already operate at near-perfect reliability. Specifically, CTIA and Verizon claim that networks are available 99.84% of the time; and AT&T claims that even in rural PUMAs, monthly uptime never falls below 99%.⁸⁰ These figures are misleading.

The methodologies used to calculate these figures mask localized outages by aggregating network data across major providers, large geographic regions, and extended timeframes.⁸¹ Aggregating millions of operational minutes dilutes chronic, extensive outages and artificially produces a network uptime figure above 99%.

More importantly, to achieve these 99% figures, carriers omit significant network downtime from their calculations. For example, AT&T claims network availability is above 99% across three rural PUMAs⁸² (Alpine-Amador, Lake-Mendocino, and Nevada-Sierra) as an attempt to prove that outages do not disproportionately affect remote areas. AT&T achieved this figure by including only CAL OES-reported outages in its network availability formula.⁸³ All outages that fell outside of CAL OES statutory requirements

⁷⁹ California Public Utility Commission Environmental and Social Justice Action Plan. Available at: <https://www.cpuc.ca.gov/news-and-updates/newsroom/environmental-and-social-justice-action-plan>.

⁸⁰ CTIA at 3 and 8; Verizon at Exhibit 6, Slide 11; and AT&T at 45.

⁸¹ Verizon at Exhibit 6, Slide 11 and AT&T at 45.

⁸² AT&T at 45-46.

⁸³ California Code of Regulations Title 19, Section 2480.2(a)(3). Cal OES community isolation outages are reported only when a carrier loses coverage across 25% or more of an entire ZIP code for at least 30 minutes.

were excluded. Under this methodology, a cell tower serving an entire rural town, clinic, or business district can fail for 6, 12, or 23 hours and still be considered “available” if it does not lead to loss of coverage in at least 25% of an entire zip code. In contrast, the Staff’s proposed standard provides a more holistic view of network availability by counting all unplanned outages as downtime.⁸⁴

Solely relying on CAL OES data to claim high rates of network availability is circular reasoning. Due to CAL OES’s high threshold of 25% of an entire zip code losing coverage, more localized outages go unreported. This high threshold means that the above calculations do not include localized outages that fall outside CAL OES’s high thresholds. Service providers can then claim 99% uptime and thus argue that the lack of reported problems proves no standard is necessary. CAL OES data captures only a narrow subset of major outages, obscuring localized network failures. Therefore, the Commission should adopt the Network Availability by PUMA Standard to establish an accurate, comprehensive baseline of actual network reliability.

2. The Commission should reject carrier claims that service quality challenges do not disproportionately affect vulnerable communities.

Establishing a network availability standard at the PUMA level is necessary to reveal systemic inequities that broader metrics obscure. Industry parties assert that service quality challenges do not disproportionately affect vulnerable communities.⁸⁵ Particularly, CTIA criticizes the Staff Proposal for being unable to identify such disparities or specify where outage patterns intersect with demographic vulnerability, while AT&T asserts that outage-duration data “does not support a conclusion that ‘poorer’ or more remote communities experience longer outage durations than other areas”.⁸⁶

⁸⁴ Staff Proposal at 40-41.

⁸⁵ CTIA at 12; AT&T at 31.

⁸⁶ AT&T at 31.

AT&T's own data refutes these assertions. In Table C of its Opening Comments,⁸⁷ AT&T ranks the PUMAs with the longest average outage durations among reported CAL OES outages from 2023 to 2025. Table A, below, shows the results of analysis that cross-references the top ten PUMAs from AT&T's Table C with 2024 American Community Survey (ACS) median household income and poverty rate data.⁸⁸

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The PUMA with the longest average outage duration in the state, <<<BEGIN CONFIDENTIAL

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⁸⁷ AT&T at 30-31.

⁸⁸ U.S. Census Bureau. "Median Household Income in the Past 12 Months (in 2024 Inflation-Adjusted Dollars)" American Community Survey, ACS 1-Year Estimates Detailed Tables, Table B19013, 2024, <https://data.census.gov/table/ACSDT1Y2024.B19013?q=B19013>: Accessed on September 11, 2026.

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40% below state levels.²⁰ Across all ten PUMAs, the median household income is \$70,303 (nearly \$30,000 below the California median of \$100,150) and drops to \$64,718 when removing the two upper-income outliers.²¹ Most notably, <<<BEGIN

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These ten worst-performing PUMAs also share key demographic traits, including high proportions of Hispanic, Asian, and immigrant residents, as well as Spanish-speaking households.²³ This socioeconomic vulnerability also overlaps with significant environmental hardship. CalEnviroScreen from the California Office of Environmental Health Hazard Assessment (OEHHA) of the California Environmental Protection Agency (CalEPA) shows these areas, <<<BEGIN CONFIDENTIAL

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²⁰ For Reference California Median Income is \$100,150. U.S. Census Bureau, *Income in the Past 12 Months (in Inflation-Adjusted Dollars)*, 2024 American Community Survey 1-Year Estimates Subject Tables, Table S1901 (California), <https://data.census.gov/table/ACSST1Y2024.S1901>.

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²² Demographic profiles across each PUMA were compiled from Data USA. (2024). *Public Use Microdata Areas (PUMAs)* [Data index]. Deloitte, Datawheel, & MIT Media Lab. <https://datausa.io/search/?dimension=Geography&hierarchy=PUMA>.

²³ Demographic profiles across each PUMA were compiled from Data USA. (2024). *Public Use Microdata Areas (PUMAs)* [Data index]. Deloitte, Datawheel, & MIT Media Lab. <https://datausa.io/search/?dimension=Geography&hierarchy=PUMA>.

²⁴ Office of Environmental Health Hazard Assessment. (2025). CalEnviroScreen 5.0: California communities environmental health screening tool. California Environmental Protection Agency. <https://oehha.ca.gov/calenviroscreen>.

CalEnviroScreen, this designates these areas as Disadvantaged Communities (DACs)⁹⁵ and makes them a Commission priority.

Of note, the communities with high levels of linguistic isolation may affect participating effectively in regulatory processes.⁹⁶ The consumers most harmed by poor service from wireless carriers may have the fewest resources to have their voices heard at Public Participation Hearings, through formal Commission filings, or through carrier complaint logs. A low number of formal complaints does not mean service is adequate. Instead, the data proves chronic network failures hit California's most vulnerable communities hardest.

These figures demonstrate that larger and more prolonged network outages fall most heavily on low-income, immigrant, and minority residents within the Commission's ESJ communities. Adopting the Network Availability Standard with PUMAs as the baseline geographic unit provides the Commission with an essential tool to identify underserved communities, enforce reliability standards, and advance its Environmental and Social Justice Action Plan.

3. The Commission should reject carrier claims that the Network Availability standard is undefined and unworkable.

Carriers argue that the Staff's network availability standard is unclear, leaves "availability" undefined, and fails to set rules for overlapping coverage.⁹⁷ AT&T in particular urges the Commission to drop the standard because "Staff itself cannot even define" it, ignoring that this is the purpose of this portion of the rulemaking process.⁹⁸ The Staff Proposal is not a final decision. Workshops and comment cycles are meant to build the record and refine proposed rules. Instead of proposing workable formulas or

⁹⁵ California Health and Safety Code § 39711.

⁹⁶ CalEnviroScreen 5.0 Technical Report at 213 Link: <https://oehha.ca.gov/sites/default/files/media/2026-06/calenviroscreen50reportf2026.pdf>.

⁹⁷ CTIA at 15–16; AT&T at 37–40, 52–53; Verizon at 18–21; T-Mobile at 21–22.

⁹⁸ AT&T at 39.

helping refine key definitions, carriers seek to dismiss the standard before it can be finalized. Carriers' request to reject an essential service quality metric simply because technical definitions are still being developed, is premature and should be denied by the Commission.

Contrary to carriers' assertions that the network availability standard is unworkable, Cal Advocates has already placed a clear, objective set of definitions and formulas into the record.⁹⁹ Specifically, Cal Advocates established that for a network to be "available," it must be simultaneously powered on, connected to backhaul, and actively transmitting carrier signals. Cal Advocates also recommends that rather than using a simple average (where every tower counts equally), availability should be weighted by the physical land area each tower covers inside a PUMA. This method ensures that outages across large rural areas are fully reflected in network availability figures. For cell sites that straddle PUMA boundaries, the most straightforward solution is to assign each cell site to the PUMA where it is physically located.

To address carriers' comments on overlapping coverage,¹⁰⁰ a cell site that goes down should be counted as unavailable even if nearby cell sites overlap the area. As part of this proceeding, the Commission is considering the requirement for propagation maps which would aid in determining the effects of individual cell sites. Adjacent towers cannot necessarily replace a downed site because the overlap may not provide complete coverage even from multiple other cell sites. The effect will likely be different where the density of the cell sites is higher, such as in some urban areas. However, that information is currently available only to the carriers. Giving carriers credit for marginal overlap hides major network failures from regulatory enforcement. Therefore, the Commission should establish that a cell site is unavailable whenever it stops serving its primary coverage area. If the Commission adopts the propagation mapping requirement, then this

⁹⁹ Opening Comments of Cal Advocates at 4.

¹⁰⁰ AT&T at 36, 40; Verizon at 21; T-Mobile Confidential Attachment B at 2.

definition can be changed to reflect the areas that were without service as service providers will be able to demonstrate that information and information can be validated.

4. The Commission should reject all other carrier arguments against the Network Availability Standard.

The Commission should reject service providers' arguments against the proposed Network Availability Standard to improve reporting for chronic local outages and hold service providers accountable. Service providers claim to have 99% network availability across the state,¹⁰¹ including rural PUMAs, yet argue that enforcing this exact standard will trigger excessive fines¹⁰² and require building an entirely new redundant second network.¹⁰³ If carriers' performance claims are true,¹⁰⁴ compliance with a 99% availability standard should be achievable and carry minimal financial risk.

The disregard for local connectivity is most apparent in carriers' arguments that dismiss the importance of localized, sub-24-hour failures. Cal Advocates strongly rejects claims by AT&T and others that outages lasting 6 to 12 hours are inconsequential disruptions that should avoid penalties.¹⁰⁵ AT&T specifically argues that penalizing a cell-site failure lasting "just 12 hours," is unreasonable;¹⁰⁶ and Verizon asserts that penalties for 12-hour outages are "draconian."¹⁰⁷ These claims are detached from consumer reality because for a resident seeking to reach 911 during an emergency or for a family running a small business, a 12-hour outage is not a minor inconvenience—it is a half-day cutoff from essential communications. Therefore, the Commission must enforce

¹⁰¹ AT&T at 43; T-Mobile at 15.

¹⁰² AT&T at 47; Verizon at 18-21; CTIA at 56-57.

¹⁰³ AT&T at 46-47; Verizon at 38; T-Mobile Confidential Attachment B at 4.

¹⁰⁴ CTIA at 3 and 8; Verizon at Exhibit 6, Slide 11; and AT&T at 45.

¹⁰⁵ AT&T at 42.

¹⁰⁶ AT&T at 42.

¹⁰⁷ Verizon at 37.

accountability for every unplanned outage to compel providers to restore service rapidly and equitably.

Equally unpersuasive are carriers' claims that the standard will disincentivize new investment by creating heavy administrative burdens.¹⁰⁸ Tracking network availability by PUMA will not require designing new or expensive reporting systems. Carriers already monitor cell-site health, backhaul status, and active radio frequency (RF) broadcasts every second through their Network Operations Centers. Adjusting their network availability tracking to PUMA boundaries should require minimal administrative effort and little cost. Ultimately, none of the arguments or evidence presented by carriers supports rejecting Staff's proposed network availability standard. On the contrary, they demonstrate exactly why the Commission must adopt it.

K. Federal law does not preempt the Commission's authority to promulgate rules and regulations about service quality.

The Commission has established that federal law does not preempt rules about service quality.¹⁰⁹ Indeed, the Commission has authority and jurisdiction to craft rules, regulations, and programs that govern the service quality of providers.¹¹⁰ Nonetheless, CTIA argues that "the proposed rules would be preempted by federal law on numerous independent grounds."¹¹¹

The Commission has already rejected similar preemption challenges. In Decision (D.) 21-10-015, the Commission explains that, "Wireless Carriers have made these same arguments in nearly every proceeding where the Commission has attempted to adopt and implement consumer protection measures. As in every other case, the wireless carriers'

¹⁰⁸ Verizon at 37.

¹⁰⁹ Wireless Service Quality OIR at 4-10 (citing D.21-10-015, D.20-07-011, and D.25-09-031).

¹¹⁰ D.21-10-015, Order Denying Rehearing of Decision (D.) 20.07.011, October 12, 2021 at 4.

¹¹¹ Comments of CTIA on Staff Proposal at 37-46; see also Opening Comments of AT&T Mobility LLC (New Cingular Wireless PCS, LLC (U 3060 C); AT&T Mobility Wireless Operations Holdings, Inc. (U 3021 C); and Santa Barbara Cellular Systems, Ltd. (U 3015 C)) (collectively AT&T) on Staff Proposal and Responses to Data Requests at 26.

express preemption argument is without merit.”¹¹² Nowhere has Congress “expressly stated or clearly manifested any intention to prohibit all state public safety regulations that apply to wireless providers.”¹¹³ Accordingly, the Commission should again reject these preemption challenges.

California’s police power also includes the authority to protect the health and safety of its citizens, and this power is “unquestionably an area of traditional State control. The California Constitution and California statutory law designate the CPUC as the principal body through which the State exercises its police power in the case of essential utility network services.”¹¹⁴

In support of its broad preemption claims, CTIA points to 47 U.S.C. § 332(c)(3)(A), which provides that “no State or local government shall have any authority to regulate the entry of or the rates charged by any commercial mobile service or any private mobile service[.]”¹¹⁵ However, by the statute’s own terms in 47 U.S.C. § 332(c)(3)(A), the scope of this preemption power is limited to (1) regulation of entry, and (2) regulation of rates. CTIA implies that preemption would apply to rules regarding “network design,” yet such a reading is contrary to the plain meaning and text of Section 332(c)(3)(A), which preempts only the state’s power to regulate “the entry of or the rates charged by any commercial mobile service or any private mobile service.”¹¹⁶

CTIA’s reading also contradicts the savings clause of 47 U.S.C. § 332(c)(3)(A), which establishes that this statute’s preemption provision is limited in scope. Indeed, under the savings clause of Section 332(c)(3)(A), the preemption provision shall “not prohibit a State from regulating the other terms and conditions of commercial mobile services.” Accordingly, the Commission has the authority to adopt service quality rules,

¹¹² D.21-10-015 at 4.

¹¹³ D.21-10-015 at 6.

¹¹⁴ D.21-10-015 at 7 (footnote omitted).

¹¹⁵ CTIA at 38-40.

¹¹⁶ CTIA at 39.

regulations, and programs under both (1) the savings clause of Section 332(c)(3)(A), and (2) the “state police powers reserved to the states pursuant to the Tenth Amendment to the U.S. Constitution. In fact, the presumption against preemption where the state is exercising traditional health and safety police powers is particularly strong.”¹¹⁷

L. The Commission has sufficient evidence to issue a decision in this case regarding service quality rules.

Some of the service providers argue that the Commission lacks sufficient evidence to adopt the Staff Proposal’s recommendations.¹¹⁸ They rely, in part, on *The Utility Reform Network v. Public Utilities Com.*, 223 Cal. App. 4th 945, 167 Cal. Rptr. 3d 747 (2014), for this argument. Yet as *The Utility Reform Network v. Public Utilities Com.* itself states, “We may reverse the Commission’s decision only if, based on the evidence before the Commission, no reasonable person could reach the conclusion it did.”¹¹⁹

Furthermore, of “all the activities undertaken by an administrative agency, quasi-legislative acts are accorded the most deferential level of judicial scrutiny.”¹²⁰ If the Commission were to adopt the Staff Proposal’s recommendations, then the findings in its decision would still be “supported by substantial evidence in light of the whole record,” as required by *The Utility Reform Network v. Public Utilities Com.*, 223 Cal. App. 4th 945, 958. Indeed, representatives from the Communications Division attended a workshop in which they discussed in detail the Staff Proposal’s recommendations and reasoning; and furthermore, these representatives spoke to and answered questions from the parties, including the service providers.¹²¹ “No informality in any hearing,

¹¹⁷ D.21-10-015 at 10.

¹¹⁸ See, AT&T at 23-24; Verizon at 27.

¹¹⁹ 223 Cal. App. 4th 945, 959.

¹²⁰ *California Assn. of Medical Products Suppliers v. Maxwell-Jolly*, 199 Cal. App. 4th 286, 307, 131 Cal. Rptr. 3d 692, 710 (2011) (quoting *Pulaski v. Occupational Safety & Health Stds. Bd.*, 75 Cal. App. 4th 1315, 1331, 90 Cal. Rptr. 2d 54, 64 (1999)).

¹²¹ Workshop #2; available at: <https://youtu.be/ognzj9jDSVk?si=04ia9huw7D14H0A6>.

investigation, or proceeding or in the manner of taking testimony shall invalidate any order, decision, or rule made, approved, or confirmed by the commission.”¹²²

III. CONCLUSION

The Commission should adopt the recommendations included in the Staff Proposal and not be dissuaded by arguments from industry that there are issues with jurisdiction or preemption; that the proposed recommendations do not properly consider FCC rules; that the proposed recommendations might raise national security concerns; or that the CAL OES, PUMA, and Customer Service standards are unsupported by the record. The Commission should also disregard all misleading statements proffered by industry parties, and any argument that is supported by those statements.

Respectfully submitted,

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¹²² Cal Pub Util Code § 1701.