

**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA**

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

Rulemaking 26-02-017
(Filed February 26, 2026)

**OPENING COMMENTS OF THE RURAL COUNTY REPRESENTATIVES OF CALIFORNIA
AND CENTER FOR ACCESSIBLE TECHNOLOGY ON STAFF PROPOSAL**

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I. Introduction

Pursuant to the schedule set in the *Administrative Law Judge’s Ruling Issuing Staff Proposal* (“Ruling”), issued by Administrative Law Judge Thomas J. Glegola on August 19, 2026, the Rural County Representatives of California (“RCRC”) and Center for Accessible Technology (“CforAT”) jointly submit these timely comments. RCRC is an association of forty rural California counties, and our Board of Directors is comprised of an elected Supervisor from each of our member counties. CforAT is a 501(c)(3) organization that is authorized by our bylaws to represent the interests of utility customers with disabilities and medical needs before the California Public Utilities Commission.

II. Comments on Staff Proposal

RCRC and CforAT appreciate the thoughtful and comprehensive Staff Proposal (“Proposal”) prepared by the Communications Division Staff (“Staff”) and are overall supportive of its recommendations. The Staff Proposal reflects a careful review of the extensive record developed in this proceeding, including written party comments, public participation hearings, workshop testimony, carrier data submissions, and the lived experiences of Californians who rely on wireless phone service, as shared by rural counties, tribal communities, consumer advocates, and public safety representatives.¹ The Staff Proposal’s analysis appropriately recognizes, based on the information and data presented, that statewide

¹ Also see *Order Instituting Rulemaking Proceeding to Consider Amendments to General Order 133*, R.22-03-016 (instituted March 17, 2022), the predecessor to this proceeding.

averages and carrier-reported performance metrics can obscure persistent, localized service quality issues experienced by many California communities. Recommendations addressing Community Isolation Outages, better reflecting network availability reporting using U.S. Census microdata, and utilizing signal propagation maps to distinguish between indoor vs. outdoor service availability directly address concerns repeatedly raised by community stakeholders and first responders. The resulting Staff recommendations provide a balanced framework that advances public safety, transparency, accountability, and consumer protection while recognizing the operational realities of wireless networks.

Importantly, the record developed in this proceeding provides a sufficient and substantial basis for swift Commission action. Throughout the proceeding, wireless carriers have been afforded multiple opportunities to provide operational, technical, and cost information regarding the proposed service quality standards.² Where they have done so, it has been considered appropriately in the development of the Staff Proposal. To the extent that the carriers have not provided information, the Staff Proposal reasonably and appropriately relies on other information that has been developed. The resulting Staff Proposal is well grounded, and it is technically and operationally feasible, particularly given the carriers' own testimony that they routinely monitor and utilize similar network performance metrics to manage and improve their systems to maintain a competitive advantage.³

The carriers and industry groups have repeatedly sought delay and appeared at the recent workshop to be prepared to argue that additional data collection is necessary before the Commission can act. This is not accurate. The Commission has a substantial record from this proceeding and its predecessor, and it is acting in its quasi-legislative capacity to advance the public interest and address the public safety needs of wireless customers. Any procedural delay is unnecessary, and the Commission should proceed toward adopting updated wireless service quality standards in General Order 133. Consumers should not be left without meaningful accountability measures for wireless services that increasingly serve as their primary means of communication.

These written comments are intended to supplement the testimony and information provided by RCRC and CforAT at the Workshop held on August 27, 2026 ("August Workshop"), as well as respond to industry party feedback at that Workshop.

² *Administrative Law Judge's Ruling Issuing Staff Proposal*, Rulemaking 26-02-017 (August 19, 2026), Attachment A, see pages 6-8.

³ Staff Proposal, at page 6, 9.

A. Cal OES Community Isolation Standard

RCRC and CforAT support the recommendations to require wireless carriers to restore wireless community isolation outages within 24 hours.⁴ While this is an issue throughout the state, it is particularly important in rural areas where residents may have access to only one facilities-based carrier or limited functional communications alternatives. In these environments, prolonged outages can eliminate access to emergency alerts, evacuation information, 9-1-1 access and emergency services altogether. Additionally, in areas where multiple facilities-based services are purportedly available, the record shows that there are routinely areas where service is limited or compromised. Any extended outage of any provider may limit necessary communication for customers. Due to the importance of this issue, RCRC and CforAT support the proposal for penalties or corrective actions to be scaled as appropriate.⁵

RCRC and CforAT additionally encourage the consideration of historical outage trend data availability or analysis so recurring service quality problems in specific locations can be identified and addressed rather than be viewed only as isolated events. For instance, Cal OES's public facing 9-1-1 outage dashboard⁶ only provides a snapshot of the past 24 hours of Active Community Isolations. We encourage the Commission to consider how to make publicly available a similar tool with a look back on historical outage trends with the data it collects, not just current or recent outage activity, so that chronic reliability problems are publicly searchable and identifiable—and ultimately addressed long-term (e.g. through performance improvements or for better insights to aid emergency planning and preparedness).

B. Network Availability by PUMA Standard

Based on the analysis presented in the Staff Proposal, RCRC and CforAT support addressing network availability using the U.S. Census Public Use Microdata Areas ("PUMAs") as the primary geographic unit.⁷ One of the clearest themes that has emerged from this proceeding (and its predecessor) is that statewide averages conceal localized reliability failures. A carrier may claim or report generally acceptable statewide performance while specific communities experience repeated outages, chronic dead zones, or persistent service degradation. As the Staff Proposal correctly recognizes, consumers experience telecommunications service locally, not through statewide averages. Reliance on statewide (or nationwide) performance metrics has too often allowed persistent local service quality problems to be dismissed as statistical outliers rather than addressed as a legitimate concern. In the absence of localized

⁴ Staff Proposal, page 38.

⁵ Staff Proposal, page 38-39.

⁶ Available here: <https://public.outage.ca.nga911.com/dashboard>

⁷ Staff Proposal, at page 28, 37.

performance measures, persistent service quality problems affecting particular communities will remain effectively invisible. The proposed PUMA standard, therefore, represents an important shift toward ensuring that carriers remain accountable for service quality in areas they purport to serve,⁸ not merely on their aggregate performance.

The use of PUMAs generally represents a reasonable and balanced approach to provide a sufficiently granular geographic unit to identify persistent reliability concerns while avoiding the administrative complexity associated with smaller reporting areas. Hence, the proposed standard strikes an appropriate balance between meaningful oversight and practical implementation for much of the state. The exception is for those PUMAs that cover very large geographical territories, particularly those that have scattered (and small) population centers. The examples provided in the Staff Proposal and discussed at the August Workshop, including the Nevada County/Sierra County PUMA and the Alpine/Amador/Calaveras/Inyo/Mariposa/Mono/Tuolumne PUMA show that there are areas where statistics across a PUMA may not allow for clear understanding of where problems occur. For this reason, RCRC and CforAT support the suggestion made at the workshop that, for PUMAs that include more than one county, reports should also include outage information on a county level. Where a PUMA is smaller than a county (or coextensive with a county), this additional information would not be necessary.

The Commission may wish to consider additional, more granular options in the future should service quality issues persist and enforcement or penalty mechanisms fall short of achieving greater service quality and reliability.

Finally, at the August Workshop, industry parties questioned whether capacity-related limitations could be construed as an outage based on the examples provided by Lake County at the June 25, 2026 Workshop. This appears to reflect a concern with being held accountable for network congestion preventing customers from making or completing calls during periods of unusually high demand. However, the issue raised by Lake County and others underscores the broader concern about the adequacy and redundancy of telecommunications infrastructure, particularly in rural areas where network capacity may be planned or based on permanent population levels and may not sufficiently account for seasonal fluctuations, tourism, or other temporary surges in demand.

Wireless service is inherently mobile and differs from traditional wireline service, which is delivered to a fixed location. As a result, wireless networks should be evaluated with an understanding of these unique characteristics while still maintaining the reasonable expectations that consumers can access

⁸ Especially as a sufficient or adequate alternative for Carrier of Last Resort (COLR).

reliable service when and where they need it. One such characteristic is that levels of demand on a system may fluctuate. The carriers should be prepared to accommodate such fluctuating demand.

At the August Workshop, the carriers and industry representatives appeared prepared to argue that the Commission does not have authority to require specific build-out requirements to address network capacity. To the extent they make such an argument, the Commission should not be distracted. The carriers can (and do) plan for increased capacity at times where they can predict increased congestion, such as during the Super Bowl. They have the capability to prepare for predictable periods of localized congestion elsewhere, and the manner they chose to do so is within their business discretion. The issue under review is whether service failures due to congestion should be reported for the Commission's review. They should. To the extent that localized performance reporting reveals recurring service quality issues such as network congestion, call completion failures, or other reliability issues in underserved PUMAs, that information should inform carriers' evaluation of existing network capacity and future infrastructure investment needs. That outcome should not be viewed as an unintended consequence of the Staff Proposal; it is one of its central purposes.

C. Customer Service Standard

RCRC and CforAT generally support the Commission's objective of ensuring that wireless consumers receive customer service protections that are reasonably comparable to those provided to customers using other voice technologies, such as wireline options. Our primary interest in customer service standards is ensuring accountability and consistency across voice service platforms, especially for service restoration following an outage and access to customer service. To the extent the Commission adopts customer service requirements for wireless providers, those requirements should support, rather than weaken, the Commission's existing frameworks. As wireless service increasingly replaces legacy landline service, consumers should have consistent expectations regarding access to customer support and problem resolution regardless of the underlying technology used to provide voice communications.

For these reasons, we agree with Cal Advocates' comments at the August Workshop to include (automatic) customer credits for a carrier's violation of service quality standards afforded to wireline

customers per General Order 133-E.^{9, 10} As CforAT has addressed in the predecessor docket, customer credits serve a different purpose than penalties, and both purposes are necessary in response to inadequate customer service. A refund requirement makes the customer whole by returning payment for service that the carrier failed to provide, while a penalty mechanism is an administrative fine meant to “encourage compliance with laws and regulations and deter future violations.”¹¹ A provider should not be authorized to avoid paying a penalty for failure to meet minimum service standards simply by refunding customers, nor should the provider be able to avoid refunding a customer for service they did not receive based on paying a penalty. Moreover, customer restitution reinforces the visible need for carrier accountability to its customers. To the extent carriers contend that competitive market forces are sufficient to ensure high-quality service, automatic customer credits should function primarily as a backstop for the relatively infrequent instances in which those market incentives fail to prevent customer harm.

At the August Workshop, carriers appeared prepared to argue that there should be multiple exceptions to any penalty or refund provisions. RCRC and CforAT also seek clarifications regarding potential exceptions to the penalty and refund provisions, and recommend that they should remain aligned with the requirements for facilities-based providers in current General Order 133-E. 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.¹² 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.

⁹ For the sake of consistency, RCRC reiterates its position on customer credits from R.22-03-016 that automatic customer credits should be assessed as the greater of a fixed dollar amount or a percentage of the customer’s bill, thereby preserving the credit’s deterrent effect on carrier noncompliance over time without requiring future Commission action to adjust for inflation or changing market conditions.

¹⁰ Although Cal Advocates made these comments during the August Workshop discussion of the Cal OES Community Isolation Standard, RCRC addresses them here under Customer Service Standards.

¹¹ See CforAT Reply Comments on Proposed Decision, filed on May 27, 2025 in R.22-03-016.

¹² See D.20-07-011 and D.21-02-029.

D. Signal Propagation Maps

RCRC and CforAT appreciate Staff’s recommendation to require carriers to make signal propagation maps publicly available so that customers have access to quantifiable and verifiable information on signal strength. At the August Workshop, the discussion clarified that the translation of signal strength to service availability and signal quality indoors remains subject to various factors, but signal propagation information, as noted in the Staff Proposal, “provide[s] a more precise way to evaluate whether service is likely to be usable.”¹³

Consumers should have access to this meaningful and measurable information regarding the service they are purchasing. Existing coverage maps based on the technology available in an area often convey an overly optimistic indication of network availability and do not necessarily reflect real-world service conditions experienced by consumers, particularly in mountainous, forested, or otherwise challenging rural terrain, but also in some locations that are part of urban areas where full coverage is expected by customers. While territorial factors remain relevant in the availability of coverage regardless of the form of mapping provided, the measurable signal strength allows a more realistic way for customers to assess the likelihood of coverage.

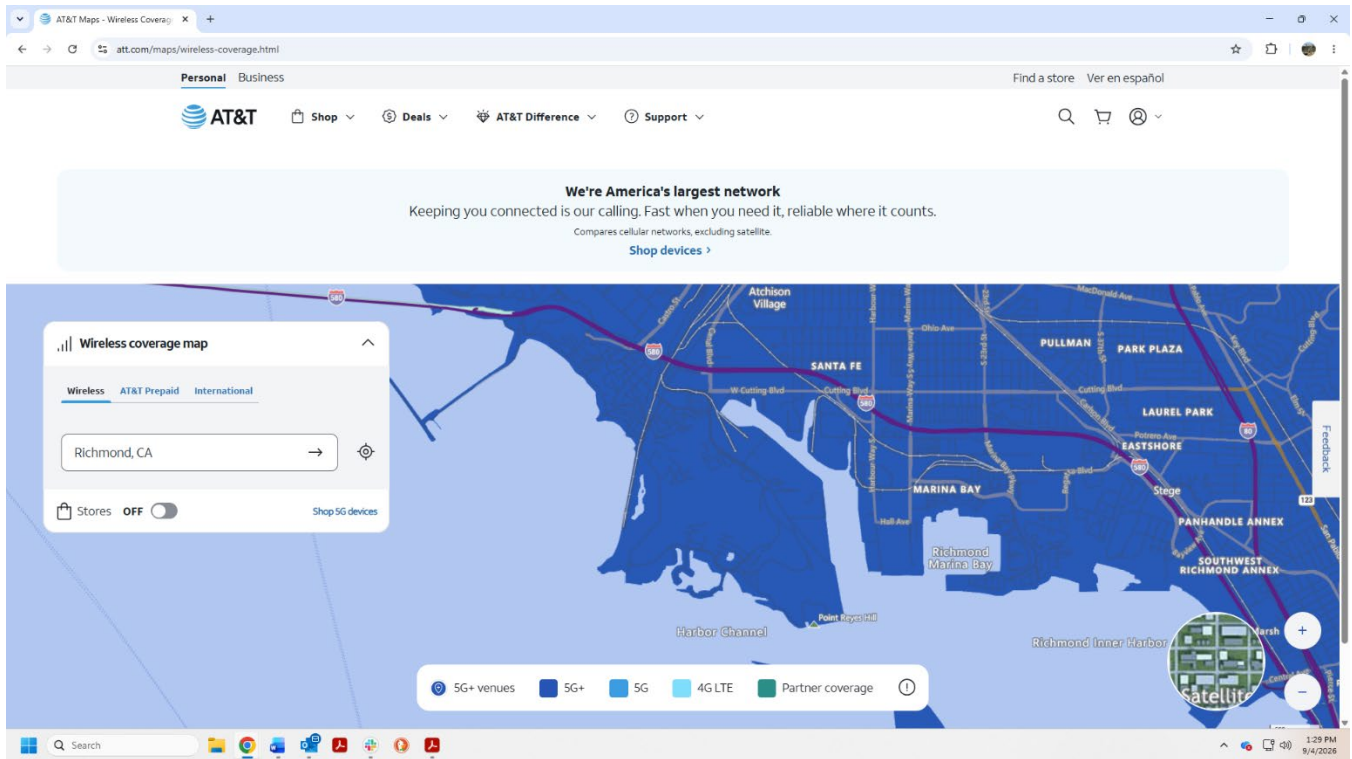
The use of signal propagation is particularly important in the Carrier of Last Resort (COLR) context, where wireless service is frequently presented by COLR-providers as a viable substitute for traditional wireline voice service. If wireless service is to be considered as a suitable alternative communications platform to meet universal, essential service, then consumers and regulators must have confidence that service can reasonably be expected to be functionally available where it is most likely to be used, including inside homes and businesses. Signal propagation mapping that reflects likely indoor service availability provides one of the most practical and objective methods for evaluating whether wireless service can reliably fulfill that role.

Signal propagation maps are also useful to help identify areas where there are likely to be gaps in even outdoor coverage within areas that are identified as “served” by wireless technology. CforAT provided an example of a recent experience of an incident (in this case a bike accident) in an area where coverage maps indicate that wireless service is available,¹⁴ but where multiple people using multiple carriers were unable to obtain a signal to call 9-1-1.

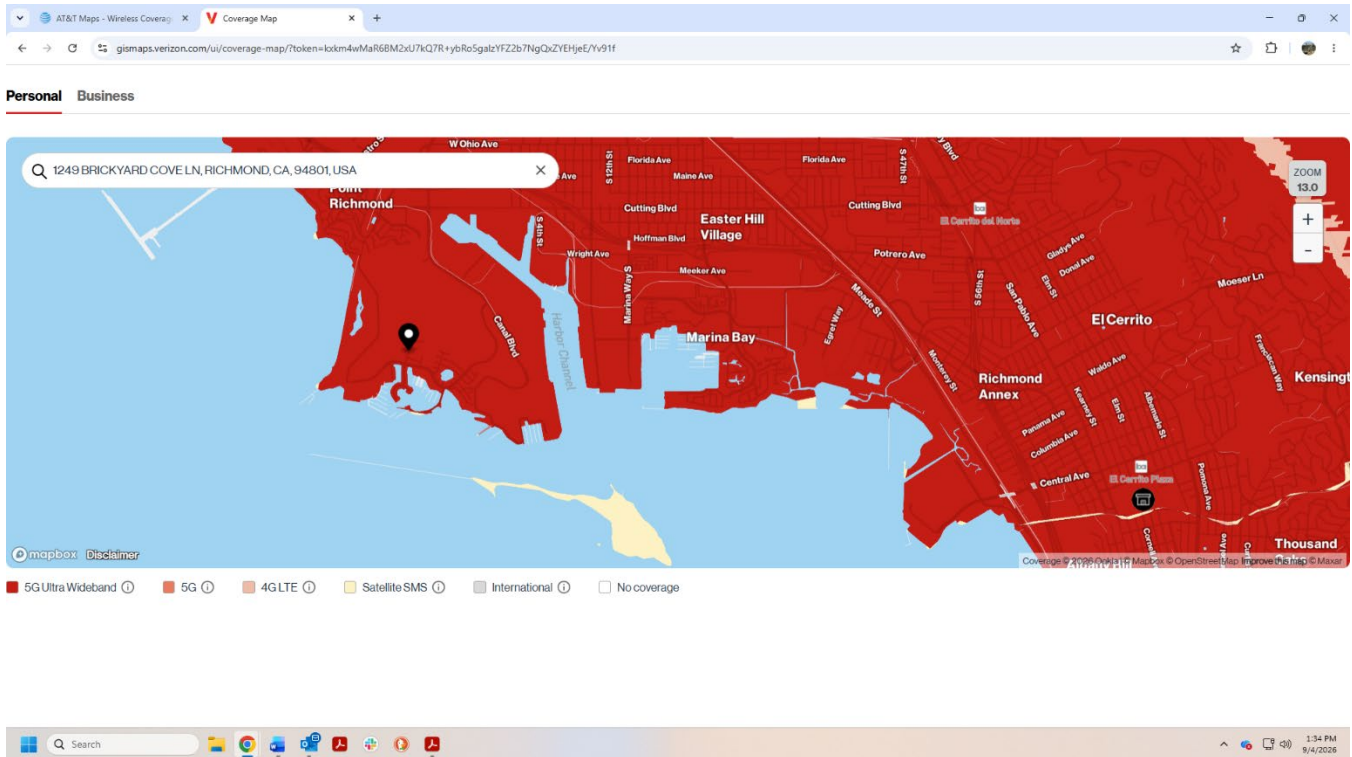
¹³ Staff Proposal at p. 45.

¹⁴ The incident took place in Point Richmond, within the city of Richmond, CA. All of the maps shown below were generated on September 4, 2026.

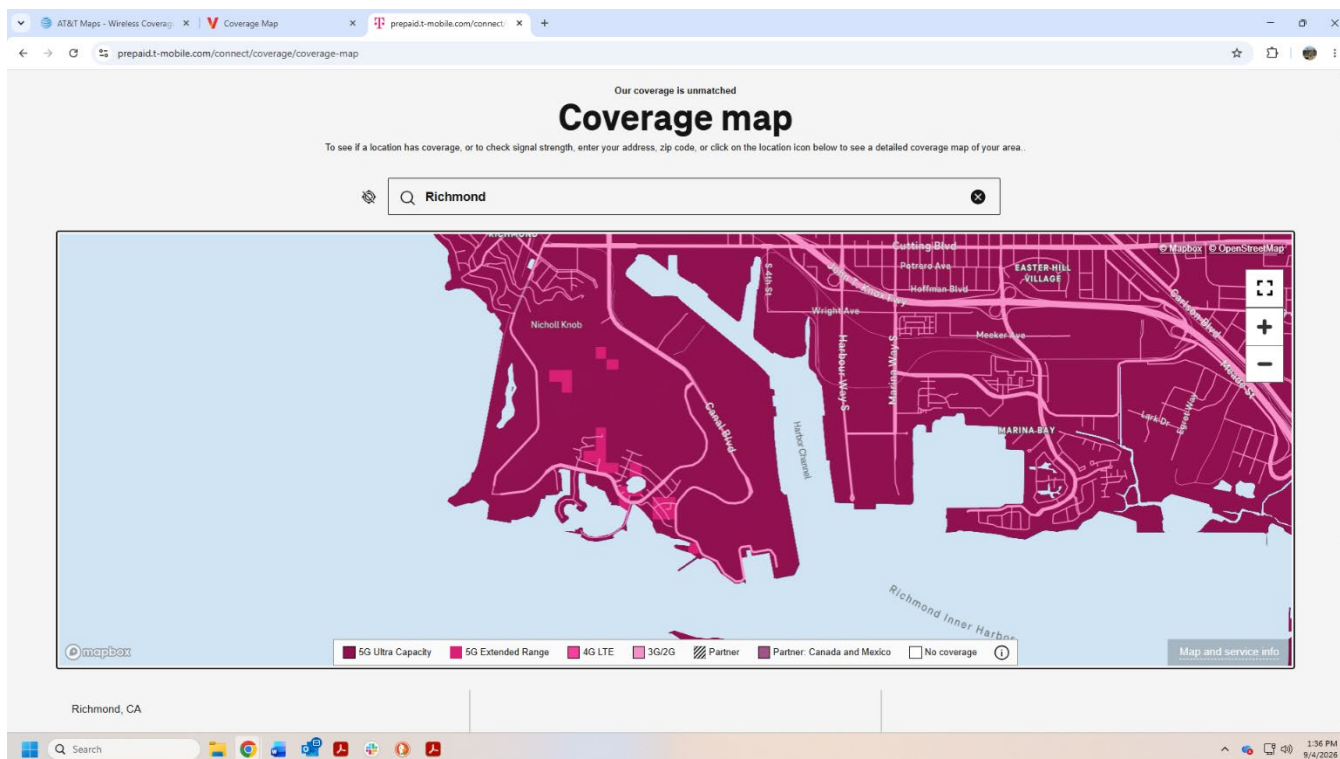
AT&T's map of the area indicates 5G+ coverage.



So does Verizon's map which indicates "5G Ultra Wideband" coverage:



T-Mobile's map primarily shows availability of "5G Ultra Capacity" service, with some areas of either "5G Extended Range Service" or potentially 4G LTE Service. The colors on its map are too similar to easily determine which of these levels is offered.



Notwithstanding the information on the maps, no signal was available when it was needed to summon 9-1-1 emergency services. A signal propagation map, had it been available, might have been able to direct bystanders to a location where they could successfully make a call.

RCRC and CforAT not only support the use of signal propagation maps but also recommend that signal propagation maps be subject to independent validation and not solely rely on carrier-submitted coverage information or projections. Independent verification beyond blanket marketing statements or advertising gimmicks would improve public confidence, provide a more reliable basis for regulatory oversight, and help consumers make informed service choices. Signal propagation maps should also be periodically verified to reflect changing conditions, including network modifications and evolving physical conditions on the landscape that may affect coverage. In the future, signal strength measures (dBm and/or RSRP) may need to be tested or reevaluated based on the latest state building standards, including on retrofitting materials used for community home hardening, and potentially adjusted accordingly to reflect indoor coverage levels needed.

Additionally, RCRC and CforAT further recommend that the Commission make these signal propagation maps publicly accessible not only on the carriers' websites but also on the CPUC's webpage and, where feasible, integrate them with other publicly available datasets, including Cal OES Community Isolation Outage information and other public safety data layers. The Staff Proposal recommends posting signal propagation maps on the carrier's individual public website only.¹⁵ The Commission should also provide further clarification that consistent mapping symbology and color scale requirements are required. For example, a carrier's branding or advertising preference shouldn't interfere with a consumer's ability to make an apples-to-apples comparison on signal propagation, or even to understand what an individual map is trying to convey. As discussed at the August Workshop that the final color choices should also take into account accessibility standards, including those that require adequate color contrast. The need for this is evident even with T-Mobile's existing mapping function, as illustrated above.

Ideally, the Commission should support development of signal propagation maps that can be viewed alongside Cal OES reported outages, and with PUMA and ESJ layers that would help inform where reliability gaps, outage patterns, and community vulnerabilities overlap. This would aid the Commission to better target oversight, infrastructure improvements, and enforcement mechanisms, including calibrating penalties and corrective measures in proportion to the severity, duration, and community impacts of service quality issues to advance public safety and consumer protection outcomes. Communities and consumers should similarly be able to publicly access a more complete picture of service availability, reliability, and vulnerability from a trusted public source.

RCRC and CforAT also support adoption of a recommendation from SBUA made at the August Workshop to develop a process for consumers and businesses to identify and flag apparent service quality concerns or discrepancies between reported and observed coverage conditions outside of the Commission's formal complaint process. Consumer-reported information could help identify areas where additional validation, analysis, or network improvements may be warranted, while providing carriers with useful insights into coverage gaps and indoor service challenges that may not otherwise be captured. Particularly in rural communities where formal complaints may be infrequent despite persistent service limitations, or in communities where there is generally coverage, but certain areas lack signal, a simple and accessible feedback process would support continuous improvement and help build confidence in the accuracy and usefulness of published coverage information. Such a process could also benefit carriers by

¹⁵ Staff Proposal, page 47.

providing a less adversarial, nonpunitive avenue to identify and address potential service issues before they require formal complaint or enforcement proceedings.

Finally, RCRC and CforAT note that some industry participants asserted security concerns and competition concerns based on disclosure of network infrastructure locations. The competition concerns should be given no credibility. First, it difficult to understand how signal propagation maps would provide a competitor with new knowledge regarding the existence or general location of wireless facilities. Many wireless facilities are deployed on leased infrastructure, co-located with other providers, attached to utility structures, or otherwise located within public rights-of-way where their presence is already readily observable. Moreover, to the extent that a signal propagation maps shows that a carrier's service in an area is not sufficient to effectively serve customers and that another carrier advertises that their service is superior in order to persuade customers to switch, that would be the exact function of competition that carriers assert exists to protect customers. This form of competitive pressure should be encouraged, not suppressed.

The issue of whether more precise signal information raises security concerns is also a distraction from the primary policy objective of this proceeding: ensuring consumers, regulators, and policymakers have accurate information regarding actual service availability and indoor coverage performance. Achieving that objective does not require public disclosure of sensitive infrastructure details or the precise location of individual facilities; rather, it aggregates data that is already available. Clear maps based on a uniform standard of signal strength, which can be independently validated, are more helpful than ad hoc consumer reliance on various websites and services that already exist, but the carriers noted at the recent workshop such various sources of information do already exist. Here, what the Commission is considering is a requirement that rests on independently validated coverage information that more accurately depicts whether consumers are likely to be able to obtain reliable indoor wireless service from a given provider. Consumers need accurate information about service availability, not engineering specifications regarding the underlying network. Accordingly, infrastructure confidentiality concerns can be reasonably accommodated but should not be used as a basis to limit the transparency, accessibility, or usefulness of signal propagation maps intended to inform consumer choice and regulatory oversight.

III. Comments on June 25, 2026 Workshop

RCRC and CforAT value the Commission's inclusion of community-based panels as part of the June 25, 2026 workshop. The participation of Lake County Supervisor Jessica Pyska, Mono County Supervisor Rhonda Duggan, Nevada County Supervisor Sue Hoek, representatives of California tribal

communities, and public safety officials helped ensure that the lived experiences of rural and underserved communities were reflected in the record.

RCRC and CforAT particularly appreciate how the Staff Proposal thoughtfully incorporated those perspectives into its analysis and subsequent recommendations. The Staff Proposal confirms concerns repeatedly expressed throughout the workshop that statewide performance metrics and carrier-reported averages can fail to capture the localized reliability challenges experienced by consumers, particularly in rural, tribal, and geographically isolated communities. The recommendations regarding Community Isolation Outages, PUMA-based network availability reporting, and signal propagation maps are a direct response to issues raised by workshop participants and represent a meaningful step toward improving wireless service accountability.

RCRC and CforAT commend Staff for developing a Proposal that balances industry perspectives with community experiences and for producing recommendations that are both practical and responsive to the public safety needs identified throughout the workshop.

IV. Conclusion

Wireless service is essential infrastructure that supports public safety, emergency communications, economic activity, healthcare access, education, and everyday life. Because, as the Staff Proposal recognizes, “Human lives are at stake in these scenarios,”¹⁶ Californians must be able to rely on wireless communications. The Commission's service quality framework through General Order 133 must evolve accordingly.

The Staff Proposal provides a thoughtful, balanced, and well-supported pathway for updating General Order 133 to include meaningful wireless service quality standards. The recommendations balance the technical realities of wireless network operations with the Commission's mission to ensure universal access to safe, affordable, and reliable communications services. The Staff Proposal also incorporates the experiences and concerns expressed by rural counties, tribal communities, first responders, consumer advocates, and members of the public throughout this proceeding.

The need for wireless service quality rules is well established. The record developed in the predecessor proceeding and in this docket, through written comments, public participation hearings, workshops, carrier data submissions, and Staff's comprehensive analysis provides more than sufficient record to support prompt Commission action. Additional evidentiary proceedings or procedural delays would not improve service quality for California consumers; they would only postpone the

¹⁶ Staff Proposal, page 37.

implementation of reasonable and enforceable standards that are long overdue. Thus, the Commission should proceed expeditiously toward the adoption of wireless service quality standards that are essential to ensuring reliable, resilient, and equitable access to voice telecommunications services statewide in a technology-neutral manner.

Respectfully submitted,

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