September 14, 2020

Rob Osborn, Director  
Communications Division  
California Public Utilities Commission  
505 Van Ness Avenue  
San Francisco, California 94105

Re: Comments of CTIA on Draft Resolution T-17706

Director Osborn:


I. INTRODUCTION

CTIA and its members appreciate the Communications Division’s efforts to create a draft of the Wireless Resiliency Plan Template (“Template”)¹ required by Decision 20-07-011. However, refining the Template to reflect a more focused approach, described herein, placing greater emphasis on the narrative portion of the Resiliency Plans than on the Network Spreadsheets will help the Commission to achieve its goal of understanding wireless carriers’ approaches to achieving resiliency. Indeed, the exceedingly broad nature of the Network Spreadsheets, and the granularity of the information sought, is antithetical to the Commission’s stated intent to refrain from micromanagement, as well as the stated purpose of Wireless Resiliency Plans. As the Commission stated:

“The above proposed elements [of the Resiliency Plan], which we adopt here, are not an effort by the Commission to micromanage the wireless providers’ operations. To the contrary; the Resiliency Plan’s elements shall serve as a guidepost to understand the wireless providers’ networks as they are impacted by future disasters plausible future operating conditions, challenges, and opportunities….”²

“Foundationally, we seek two outcomes from wireless providers’ Resiliency Plans: (1) collaboration between the Commission and the wireless providers to

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¹ The Wireless Resiliency Plan Template is comprised of an Excel Document, with several tabs, including the RAN and Core Spreadsheets (“Network Spreadsheets”). Carriers are directed to complete the Network Spreadsheets and provide narrative explanations on identified topics as well as on several elements of the Network Spreadsheets (the latter is indicated by staff with asterisks).

² See D. 20-07-011, pp. 98-99 (emphasis added). While the Commission’s statement is helpful, the Commission is precluded by law from regulating wireless providers’ networks. See Application of CTIA, AT&T Mobility, Cellco Partnership and T-Mobile For Rehearing of Decision 20-07-011, R.18-03-011 (August 19, 2020).
meet future challenges; and (2) demonstration of each wireless provider’s ability to maintain service during disasters and outages.”

The Commission’s stated goals are to collaborate with wireless carriers to overcome future challenges and to understand carriers’ approaches to resiliency. Such goals are best achieved through the approach described herein. Wireless carriers’ approaches to resiliency are individualized and dynamic, changing due to facts on the ground, evolving networks, personnel, and a host of other factors. Resiliency is achieved by preparedness, planning, marshaling resources, and the ability to adapt to and overcome adverse circumstances presented. The Commission’s adopted Template should be flexible enough for a carrier to demonstrate its unique approach to resiliency.

II. THE TEMPLATE SHOULD BE REVISED TO ENABLE THE PRESENTATION OF RELEVANT INFORMATION IN A MANNER THAT BEST ILLUSTRATES WIRELESS CARRIERS’ APPROACHES TO RESILIENCY

A. Information that is Not Applicable at the Site-Specific Level Should be Addressed Solely in the Narrative Portion of the Resiliency Plan

The Network Spreadsheets request information on carriers’ individual facilities, but certain of the requested information is only truly relevant regarding larger portions or the entirety of carriers’ networks. As a result, populating these categories of information at a site-specific level has minimal value. Such value is further reduced by the requirement to provide a narrative and supporting documentation. Moreover, the Commission did not require that each piece of information submitted as part of a Resiliency Plan be provided in a spreadsheet format. Accordingly, the information categories discussed below should be removed from the Network Spreadsheets, and carriers will provide the requested information solely in a narrative format, with appended documentation, as necessary.

- **Roaming:** The Networks Spreadsheets require carriers to designate a “roaming service provider name” and “roaming service agreement” for each site. Roaming agreements, however, cover geographic areas. The Commission has already ordered carriers to submit their roaming agreements, so populating these fields in the Network Spreadsheets would be very burdensome and would not provide any additional information. A narrative approach is more appropriate.

- **Refueling of Generators:** The Network Spreadsheets require carriers to state, with respect to each cell site utilizing a backup power generator, the name of the company, number of personnel, and schedule for refueling. Wireless carriers’ refueling practices do not follow such a regimented structure. Specific cell sites may be serviced by different refueling companies during different events, and schedules for refueling, and the number of personnel used, are usually determined on a per-event basis. Additionally, the Network Spreadsheets seek an estimate of how long sites will run on backup power with and without refueling, which raises a number of issues. Many variables impact how long a battery or a generator can run absent refueling/recharging, such as the number of customers drawing service, how often the service is accessed, and the type of service(s) those customers use (e.g., voice, text, or data). Moreover, generators are designed to

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3 *Id.*, p. 97.
4 See Draft Resolution T-17706 Attachment A, Instructions Tab, Data Inputs and Supporting Documentation Requirements.
run indefinitely if refueled, thus rendering moot the category seeking generator run-time with refueling. The Commission will learn more about refueling plans via narrative responses.

- **Public Safety Power Shutoff (“PSPS”) Response Plan:** Carriers’ PSPS response plans are not site-specific, but encompass a carrier’s entire coverage area. Carriers are required to submit their response plans as part of their Resiliency Plans, so populating this field is burdensome and provides no additional information. Providing this information narratively is more appropriate.

- **Backup Generator Compliance with California Air Resources Board (“CARB”):** The Network Spreadsheets require that carriers indicate whether the backup generator associated with a cell site is compliant with CARB standards. Carriers’ backup generator operations comply with state and local laws and permitting requirements, so the answer to this question surely will be “yes” in each instance. CTIA suggests that carriers solely provide a narrative response addressing how they ensure CARB compliance.⁵

- **Conversion to Renewable Power:** For cell sites that use non-renewable backup power, the Network Spreadsheets require a date by which conversion to renewable energy will be made. This exceeds the Decision’s requirement of “includ[ing] an approximate timeline of when and how the wireless providers anticipate a transition to renewable generation from fossil fuel generation for backup power resiliency.”⁶ The Network Spreadsheets require far more details than the Decision specified. This data requirement should be reduced to conform to the Decision and should be provided in narrative form only.

- **O&M Capability:** The Network Spreadsheets request that carriers indicate whether they can repair or replace each facility listed. The utility of including this category in the Network Spreadsheets is not clear. Carriers have operations and maintenance plans that are continually updated and improved. Other than when confronted with catastrophic loss, such as a tower compound destroyed in a fire, carriers generally maintain the ability to replace or fix all of their facilities. Carriers’ operation and maintenance capabilities are not site-specific and are more appropriately illuminated through the narrative portion of carriers’ Resiliency Plans.

- **Resiliency Improvement:** By requiring that carriers affix dates by which stated improvements will occur, Staff implies that network resiliency is a site-by-site exercise, with narrowly defined timelines. That is not the case. Emergency and resiliency processes and procedures are continuously reviewed and improved through iterative processes. Decision 20-07-011 contemplated a discussion of carriers’ network resiliency improvements, but not on a site-by-site basis. A narrative approach is most appropriate to meet the Commission’s goals.⁷

**B. Information That Does Not Aid in Demonstrating Resiliency or is Inapplicable to Wireless Carriers Should be Removed from Resiliency Plans**

The Network Spreadsheets seek certain data that was not identified in Decision 20-07-011 as required in Resiliency Plans. CTIA recognizes that the Communications Division has some discretion in compiling the elements of Resiliency Plans, but any information not identified by the Commission should be directly relevant to demonstrating resiliency. And any information

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⁵ It is also noteworthy that this category seeks a legal opinion, which is inappropriate and entirely misplaced in a Resiliency Plan.

⁶ See D. 20-07-011, p. 112.

⁷ See id., p. 109.
that is inapplicable to wireless carriers and/or their networks should be eliminated. Accordingly, the following categories of information should not be required elements of Resiliency Plans:

- **FCC Registration Number (“FRN”):** The Network Spreadsheets require carriers to identify a FRN for each cell site. FRNs are used “to determine if all of a [FCC] registrant’s fees have been paid,” to “provide the FCC with basic information,” “to identify a registrant’s business dealings with the FCC,” and are required to “do[] business with the FCC.”² Eight Carriers do not use FRNs to identify cell sites, so the burdensome exercise of matching a FRN to each cell site has no relevance in Resiliency Plans. Resiliency Plans should not include this information.

- **Percentage Uptime:** Carriers must state each site’s percentage uptime as a “way to measure the maintenance of a sufficient level of service at a given facility.”⁹ Percentage uptime generally is a global network performance metric akin to the public safety “rule of 9s” standard, and it is an inherently backwards-looking metric, though the Commission seeks to use it for forward-looking, site-specific projections. Sites are expected to run at or near 100% of the time on an annualized basis. A site’s premeasured percentage uptime over a past period has no bearing on whether a carrier will maintain service for 72 hours after the loss of commercial power, because whether a site operates for 72 hours after a power outage has no relationship to its (typically annually-measured) percentage uptime before a power outage. This information will not further the Commission’s understanding of resiliency and should be excluded from Resiliency Plans.

- **Colocation Site:** The Network Spreadsheets require wireless carriers to identify collocated facilities, but carriers do not track such information. Submission of this information would impose an extremely burdensome obligation on carriers and it has no relevance to carriers’ efforts to maintain service. This information need not be included in Resiliency Plans.

- **TransLoc:** Even transmitters listing the same location at the same facility may vary in the availability of backup power, so identifying transmitter locations is not relevant to the Commission’s understanding of carriers’ Resiliency Plans. Furthermore, transmitter location is information not all carriers necessarily maintain and is not determinative of whether a site plays a role in a carrier’s plan to maintain service for 72 hours after a power outage. This information need not be included.

- **CPCN:** The Commission issues Wireless Identification Registrations (“WIRs”) for wireless carriers. CPCN information is inapposite and even WIR information is not relevant to resiliency. Submission of such information should not be required.

- **Common Language Location Identifier (“CLII”) Codes:** While CLII codes are common within the telecommunications industry to specify the location and function of telecommunications equipment, generally for routing or ordering services and facilities, they are not used by wireless carriers to specify the location or function of cell sites. This information should not be included in Resiliency Plans.

- **PSPS Event Advance Notice Requirement:** This notice requirement is misplaced in a spreadsheet pertaining to wireless carriers. The PSPS event notice requirements, established in

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⁹ See Draft Resolution T-17706, Attachment A, Glossary Tab. CTIA notes that the formula described in the Glossary appears to describe the reverse of the intended mathematical operation.
Decisions 19-05-042 and 20-05-051, are applicable to investor-owned electric utilities, not wireless carriers. This information should not be included in Resiliency Plans.

III. THE COMMISSION SHOULD NOT TAKE A SITE-BY-SITE APPROACH TO BACKUP POWER FEASIBILITY

Regarding “backup power infeasibility,” the Network Spreadsheets seek, on a site-by-site basis, (1) a generalized reason that backup power is infeasible at the site; (2) a more detailed explanation as to its infeasibility; and (3) a date by which it will be feasible to have backup power at the site. The latter two points are then to be addressed more fully in the narrative portion of Resiliency Plans. This construct is wrought with problems.

With respect to small and micro cells, the response for every site in the Network Spreadsheet will be identical; i.e., fixed or portable backup power for small and micro cells in urban and suburban environments generally is infeasible. Moreover, as has been previously expressed by the wireless carriers, small and micro cells are most commonly used to boost capacity. Thus, populating the Network Spreadsheets with detailed information on these sites will not assist in demonstrating network resiliency, so small and micro cells should be excluded from Network Spreadsheets. In the limited circumstances in which small and micro cells are used to provide coverage, that information can be addressed in the narrative portion of Resiliency Plans.

More broadly, the concept of backup power “feasibility” is variable. For instance, deploying a portable generator to a particular site may or may not be feasible depending on conditions that prevent access, such as wildfires. The Commission has asked carriers to describe their approach to maintaining service in their coverage area for 72 hours after the loss of commercial power. Such a demonstration does not require a determination of the feasibility of backup power at every site. The backup power infeasibility, backup power infeasibility detail, and backup power feasibility date categories should therefore be removed from the Network Spreadsheets, as they shed no light on carriers’ plans to maintain 72 hours of service subsequent to a power outage. Carriers’ narrative responses will provide the relevant information.

Respectfully submitted,

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Service List, Draft Resolution T-17706

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**See, e.g., Verizon Comments on Assigned Commissioner’s Ruling, R. 18-03-011 (April 3, 2020), pp. 21-24.**
SUBJECT INDEX
(Recommended Changes to Draft Resolution)

1. The following information categories should be removed from the RAN and CORE Excel Spreadsheets and discussed solely in the narrative portion of the Wireless Resiliency Plan Template:
   - Roaming service provider name
   - Roaming service agreement
   - Refueling Schedule
   - Dedicating refueling Personnel
   - Refueling Company Name
   - Generator Backup Power capacity (with refueling)
   - Generator Backup Power capacity (without refueling)
   - Public Safety Power Shutoff Response Plan:
     - Backup Generator Compliance with CARB
     - Conversion to Renewable Backup
     - Backup Power Infeasibility
     - Backup Power Infeasibility (detailed reason)
     - Backup Power Feasibility (date)
   - O&M Capability
   - Resiliency Improvement

2. The following information categories should be removed from the RAN and CORE Excel Spreadsheets and not be a required element of the Wireless Resiliency Plan Template:
   - FCC Registration Number
   - Percentage Uptime
   - Colocation Site
   - Transloc
   - CPCN Number
   - Common Language Location Identifier Codes
   - PSPS Event Advance Notification Requirement

3. Micro and small cell sites should not be included in the RAN and Core Excel Spreadsheets. In the limited circumstances in which micro or small cells are used to improve coverage and fill in “dead spots” in certain geographic areas, that information should be addressed in the narrative portion of the Wireless Resiliency Plan Template.