BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

FILED
04/03/20
04:59 PM

Order Instituting Rulemaking Regarding Emergency Disaster Relief Program	))))	Rulemaking 18-03-011

COMMENTS OF THE WIRELESS INFRASTRUCTURE ASSOCIATION

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April 3, 2020

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COMMENTS OF THE WIRELESS INFRASTRUCTURE ASSOCIATION

The Wireless Infrastructure Association ("WIA") respectfully submits comments to the Public Utilities Commission of the State of California ("CPUC") in response to the Assigned Commissioner's Ruling and Proposal ("Ruling" or "Proposal")[1] in this rulemaking proceeding. WIA represents the businesses that build, develop, own, and operate the nation's wireless infrastructure. Members include infrastructure providers, wireless carriers, and professional services firms that are responsible for telecommunications facilities around the globe. On the local, state, and federal level, WIA supports the widespread deployment of wireless infrastructure to deliver mobile broadband access to all citizens and communities.

WIA appreciates the opportunity to comment in this proceeding as the CPUC seeks to evaluate ways to promote network resiliency. As the Proposal correctly recognized, communications services are very important, particularly during emergency situations.[2] WIA looks forward to continuing to work with the CPUC to adopt a framework to maintain resilient and dependable communication networks. To this end, WIA urges that any plan adopted by the CPUC be grounded in fact and recognize the very real challenges to deploying more resilient networks so that the CPUC's goal to increase resiliency can be accomplished as soon as possible.

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[1] *Order Instituting Rulemaking Regarding Emergency Disaster Relief Program*, Rulemaking 18-03-011, Assigned Commissioner's Ruling and Proposal, Mar. 6, 2020. The Proposal is attached as an appendix to the Ruling.

[2] Proposal at 1.

However, as currently drafted, the proposed Ruling fails to distinguish the separate responsibilities of all the players involved in this complex communications ecosystem or account for the challenges to deploying more resilient networks, such as the large web of competing ordinances and regulations. Significantly, the proposed Ruling does not differentiate between infrastructure providers and wireless service providers which from the outset would cause confusion among various industry players as to who bears the ultimate responsibility of compliance with the CPUC's proposed Ruling. Accordingly, the scope of the proposed requirements should be clarified and modified to account for the realities and challenges facing the wireless industry in developing workable solutions to increase network resiliency. Moreover, as discussed below, mandating the deployment of permanent generators at cell sites is not a magic bullet and, in many cases, would be infeasible to accomplish.

DISCUSSION

I. APPLICABILITY OF REQUIREMENTS – THE SCOPE OF THE PROPOSED REQUIREMENTS SHOULD BE CLARIFIED AND KEY TERMS DEFINED

The CPUC defined the scope of this proceeding as "establishing resiliency planning *for communications service providers* in areas that are prone to outage events and wildfires, with the goal of establishing rules for resiliency by Summer 2020, if not sooner."[3] The CPUC Scoping Memo defined "communications service providers" subject to the proceeding as "landline, cable, and wireless" providers.[4] Consistent with the Scoping Memo, the Ruling seeks comment on "whether the CPUC should require communications service providers to deploy sufficient

[3] *Order Instituting Rulemaking Regarding Emergency Disaster Relief Program*, Rulemaking 18-03-011, Assigned Commissioner's Phase II Scoping Memo and Ruling at 3, January 2020 (emphasis added), available at: http://docs.cpuc.ca.gov/SearchRes.aspx?docformat=ALL&docid=324941921 ("Scoping Memo").

[4] *Id.* at 3 n.4.

backup power at key facilities . . . . "[5] Based on these statements, it is clear that the CPUC is focused on those entities that have a direct relationship with end-users or consumers, which would be the wireless service providers. All other participants, including the wireless infrastructure providers, play an extremely vital and essential role in the ecosystem such as designing, maintaining, and servicing the physical infrastructure and fenced compound. However, these other entities provide services to wireless service providers and have no relationship with the end-user. Wireless service providers are the only entities with a direct relationship with the end-user and should be the only entities directly subject to the proposed Ruling.

To operate properly, the Assigned Commissioner should promulgate rules that clearly distinguish between a wireless service provider and a wireless infrastructure provider. If the CPUC's goal is indeed to "ensur[e] that communications providers are addressing every facet of their responsibility to provide safe and reliable service to Californians,"[6] then WIA urges the Assigned Commissioner to adopt the "alternative" definition of applicability, proposed in 4.1.2, but with some modifications to clarify that the rules are only applicable to the entities that provide wireless services to end-users. Further, the definition should clarify that the rules do not apply to any of the following systems:

a) small wireless facilities as defined by 47 C.F.R. § 1.6002(l);
b) neutral-host Distributed-Antenna-Systems (DAS);[7]

[5] Proposal at 1.

[6] *Id*. at 2.

[7] DAS network architecture involves the delivery of wireless services over fiber optic lines between two fixed locations: (1) the "node" and (2) the "hub." In the case of in-building DAS, the hub is typically installed in a central location within the building, and nodes are distributed throughout the building as necessary to provide adequate signal coverage. *Distributed Antenna System (DAS) and Small Cell Technologies Distinguished*, at 3, 5, HETNET FORUM (2013), https://www.hetnetforum.com/resources/send/2-resources/24-das-and-small-cell-technologies-distinguished.

c) any communications network utilizing citizen broadband radio service (CBRS) (including priority access license (CBRS-PAL) and general authorized access (CBRS-GAA));[8] and
d) any communications network wireless local area networks (WLAN).

The requested exclusions are essential because these facilities generally are not deployed in areas that could accommodate backup power. For example, indoor DAS systems are installed throughout buildings, but the network equipment is typically installed in a small room or closet somewhere deep inside the location, with no extra space to install back-up power. Further, the DAS operator may not have additional rights to other areas of the property to add auxiliary power to the DAS system. Other deployments, such as small wireless facilities, are usually deployed on communications lines and on utility poles in public rights-of-way, where space is restricted, and an industrial-size piece of equipment simply cannot be installed. Excluding these facilities would also be consistent with the decision of the Federal Communications Commission to exclude them from its network outage reporting rules.[9]

The proposed Ruling's description of applicability appears to exceed the CPUC Scoping Memo by stating that the proposed requirements "shall be applicable to *all companies* owning, operating, or otherwise responsible for infrastructure that provides or otherwise carries 9-1-1, voice, text messages, or data."[10] As currently written, this language extends the proposed rules beyond the Scoping Memo and outside of the stated goals of the proposed Ruling itself, to

[8] Citizens Broadband Radio Service ("CBRS") is a 3-tiered spectrum sharing architecture established by the FCC for commercial use in the 3.5 GHz Band (3550 MHz – 3700 MHz). 47 C.F.R. § 96.11 (2020).

[9] *See Amendments to Part 4 of the Commission's Rules Concerning Disruptions to Communications, Report and Order*, Further Notice of Proposed Rulemaking, and Order on Reconsideration, 2016 FCC LEXIS 1806 *47 ¶ 35 (2016) ("For purposes of this calculation, wireless providers should include only traditional cell tower deployments, i.e., macro cell sites, and not small cell sites (e.g., femto-cells, pico-cells, and micro-cells) or other wireless architecture (e.g., Wi-Fi, Distributed Antenna Systems).").

[10] Proposal at 3 (emphasis added).

entities that do not provide any communications services to end-users.[11] WIA urges the CPUC to modify this broad and ambiguous language by clarifying that the rules only apply to wireless service providers consistent with the Scoping Memo and the stated goals in the proposed rules. As noted above, wireless infrastructure providers – entities that build or install communication transmission equipment, wireless facilities, or wireless support structures, but do not provide wireless communications services[12] – should be excluded from any proposed resiliency requirements.[13] Additionally, to avoid casting an overly broad net and capturing wireless networks incapable of being powered by backup generators, the scope of the proposed Ruling's applicability should be narrowed to exclude the specific systems enumerated above. In turn, wireless infrastructure providers commit to working with wireless service providers to meet the backup power requirements including designing, coordinating, and obtaining the necessary permits and physical clearances to the best extent possible.

II. BACKUP POWER REQUIREMENT

The Proposal acknowledges that "the record to date . . . demonstrate[s] that there is not a need to adopt a backup power requirement for every single component of communications networks," that "circumstances may exist in which placing a generator is not possible or in the public interest," and that "there may not be a 'one size fits all' approach to ensuring resiliency."[14] Simply put, flexibility is the key to ensuring network resiliency. The wireless

[11] *See* Ruling at 2.

[12] These entities may be authorized to provide telecommunications in California, but do not provide wireless services.

[13] At a minimum, given that they do not provide wireless services, infrastructure providers should be excluded from any requirement to ensure continuation of wireless services during an outage, such as a de-energization event.

[14] Proposal at 2.

industry looks forward to continue working with the CPUC to develop sensible and practical rules that would improve wireless connectivity during natural disasters and power outages.

Despite the foregoing, the Proposal focuses solely on the need to deploy backup power, which is only one tool in a service provider's arsenal. For example, it may be preferable to deploy additional cell sites that provide redundancy or increase capacity in ways that would minimize the impact of certain cell sites going dark. As the Proposal recognizes, "a wireless company may have flexibility at antenna sites that may entail boosting power of adjacent sites to enhance the coverage area or have roaming agreements with other carriers."[15]

Although the Proposal states that it is not intended "to put forward specific requirements for every network component at this time,"[16] it would require entities subject to the rules to either (i) install backup power at "all cellular sites (or their functional equivalents)" necessary to maintain service for a minimum of 72 hours,[17] or (ii) seek a waiver of the backup power requirement for specific facilities or classes of facilities.[18] Such a broad mandate would not only eliminate the flexibility wireless providers currently have to address coverage issues, but also ignores the challenges industry would face in deploying such a solution taking into consideration the various current configurations of backup generators. As discussed below, the proposed 72-hour backup power requirement should be shortened to help increase the deployment of generators and certain facilities should be exempt from the requirement without triggering the need to seek a waiver.

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[15] *Id.*

[16] *Id.*

[17] *Id.* at 3.

[18] *Id.* at 4-5.

A. THE 72 HOUR BACKUP POWER REQUIREMENT SHOULD BE SHORTENED AND EXISTING GENERATORS GRANDFATHERED

Most currently deployed generators at cell sites are designed to hold the fuel necessary to operate for 48 hours and can continue to run uninterrupted for longer periods provided there are no impediments to gaining access to tower compounds to re-fuel. For example, one WIA member has indicated that its generators – which do not have fuel capacity sufficient to ensure uninterrupted service for 72 hours without refueling – properly and adequately ran during the wildfire power outages and provided power until the electricity was restored. Accordingly, rather than establish a 72-hour backup power requirement, the CPUC should consider adopting regulations that would give wireless service providers and those working on their behalf (e.g., infrastructure companies, vendors, and technicians) unrestricted access to their facilities during emergency scenarios, consistent with Federal law.[19] Such rules would more efficiently promote network resiliency than an arbitrary 72-hour backup power requirement.

Moreover, at a minimum, the CPUC should grandfather existing generators capable of supplying 48-hour backup power so that the industry can focus on addressing facilities without generators instead of replacing currently deployed, working generators. The process for deploying backup generators has historically been time consuming and burdensome to wireless service providers; including multiple rounds of approval from various state and local agencies. The CPUC should recognize the time and effort already put into deploying these generators; accordingly, WIA urges the CPUC to refrain from applying this proposed rule to existing generators at cell sites until it is necessary to install a replacement generator.

[19] *See* 42 U.S.C. § 5189e (2018) (ensuring tower owners and operators have access to their sites during emergencies).

B. CERTAIN FACILITIES SHOULD BE EXEMPT FROM THE BACKUP POWER REQUIREMENT WITHOUT THE NEED TO SEEK A WAIVER OR SHOULD BE GRANTED AN AUTOMATIC WAIVER

If the CPUC decides to adopt a broad definition of applicability, then the CPUC should automatically exempt certain categories of infrastructure and certain entities from compliance or should create more automatic waiver categories. If the CPUC does not do so, it will be flooded with waiver requests primarily for these types of infrastructure or networks, which will create a heavy administrative burden on the CPUC and ultimately slow the deployment of backup power.

First, the CPUC should exempt or provide an automatic waiver for neutral host infrastructure providers. As mentioned above, these infrastructure providers have no relationship with end-user communication service consumers and are therefore outside of the scope of the CPUC's desired audience for the proposed Ruling. Placing the compliance obligation on such entities would only cause conflict and confusion between infrastructure providers and the communication service providers and slow the deployment and adoption of more resilient networks.

Second, the CPUC should exempt or provide an automatic waiver for DAS and small cell networks. DAS networks involve deployment of numerous nodes that typically tie back to a head-end located in a small closet within a larger building.[20] The owner of the DAS system does not typically own rights to more areas of the building and thus could not deploy any form of backup power, and even if they had such rights, contractual obligations and practical limitations (i.e., building and fire codes) would prevent the installation of a diesel generator for the DAS

[20] *See Distributed Antenna System (DAS) and Small Cell Technologies Distinguished*, at 3, 5, HETNET FORUM (2013), https://www.hetnetforum.com/resources/send/2-resources/24-das-and-small-cell-technologies-distinguished.

network. Similarly, small cells are small antenna nodes installed in a public right-of-way, where there is legally and practically no additional space for backup power deployments.

Third, the CPUC should exempt or provide an automatic waiver for network services provided over CBRS (including CBRS-PL and CBRS-GAA) and WLAN. Operations utilizing these frequencies are often small, private networks designed to provide more limited wireless services within only a small area (e.g., within an office). Applying the proposed Ruling to such networks would place a disproportional burden on these network providers and would also completely miss the mark since the CPUC's target audience, as previously discussed, are national wireless communications services.

If the CPUC adopts the narrower definition of applicability recommended by WIA in Section I of these comments, additional exclusions or waivers should not be needed because the CPUC will have already clearly defined the parameters of the proposed Ruling. If, however, the CPUC adopts the broader description of applicability in the proposed Ruling, clear exemptions or automatic waivers for the networks and infrastructure noted herein will be critical. Without clear guidelines for which entities and networks are covered by the proposed Ruling, the CPUC runs the risk of causing confusion within the industry and also being inundated with waiver requests from the entities and services noted here. The confusion and administrative delay will only serve to slow the deployment and adoption of more resilient wireless networks.

C. BACKUP POWER REQUIREMENTS SHOULD NOT APPLY WHERE PHYSICAL CONTRAINTS AND/OR OTHER FACTORS MAKE IT INFEASIBLE TO DEPLOY A GENERATOR

Any backup power requirement should also exclude wireless facilities where it is not possible to deploy backup power. Courts have determined that "impossible requirements

imposed by an agency are perforce unreasonable" and that the "law does not compel the doing of impossibilities."[21]

Permanent backup generators often are large industrial-size equipment that require significant physical space and height clearance. These size issues are compounded in instances where more than one generator is required – for example, where multiple wireless carriers are co-located on a tower. Due to the sheer size of this equipment, a tower compound may need to be expanded to accommodate one or more generators but obtaining the necessary legal rights to increase the compound size is often a lengthy and complicated process. In many cases, neither the carrier nor the infrastructure provider owns the land, which means that the industry must negotiate with the landowner who may firmly object to the expansion or have contractual obligations that prevent the installation of a generator. If negotiations fall through and the compound cannot be expanded, then a permanent backup generator cannot be deployed. Even when negotiations are fruitful, the wireless industry cannot expand the compound without first obtaining local approval after a variety of permits and applications are filed, which can take years to be resolved. In other situations, the existing footprint for a cell site simply cannot accommodate additional or permanent generators.[22] For example, a tower compound may have no existing adjoining space to expand beyond its existing boundaries due to adjacent property uses.

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[21] *Bayview Hunters Point Cmty. Advocates v. Metro. Transp. Comm'n*, 366 F.3d 692, (9th Cir. 2004) (quoting BLACK'S LAW DICTIONARY 912 (6th ed. 1990) for the doctrine "Lex non cogit ad impossibilia: The law does not compel the doing of impossibilities"); *Hughley v. JMS Development Corp*., 78 F.3d 1523, 1530 (11th Cir. 1996)); *Alliance for Cannabis Therapeutics v. DEA*, 930 F.2d 936, 940 (D.C. Cir. 1991).

[22] Even where permanent backup generators can be added, the process is time consuming. If an existing tower site must be expanded to accommodate a new generator, the lease may have to be re-negotiated and modified. Further, in many such cases local governmental approval is required, but not guaranteed to occur. Any backup power requirements must provide sufficient time to obtain all necessary approvals. *See* Proposal at 2 ("Network components may be located in restricted rights-of-way, have prohibitions in lease agreements, or other restrictions that limit the addition of batteries or fuel tanks to the site").

As explained above, despite the industry's best efforts to deploy generators, there are many factors that come into consideration over which the industry has very little control. Thus, rather than force covered entities to seek waivers of mandatory backup power requirements for these facilities, any requirements ultimately adopted by the CPUC should exempt or grandfather them.[23] These facilities would remain protected from power outages by mobile generators that can be deployed quickly and more efficiently.

III. OTHER TOPICS FOR COMMISSION CONSIDERATION: CONFLICTING REGULATORY REQUIREMENTS MUST BE TAKEN INTO CONSIDERATION

WIA applauds Commissioner Marybel Batjer – the Assigned Commissioner – for recognizing that inconsistencies in regulatory compliance may present barriers to backup power deployment and therefore must be taken into consideration.[24] Another equally important consideration is the compliance or effective date of any adopted rules. Adopting a framework that carefully considers and appropriately balances these factors would make it more likely that backup power is deployed in a timely manner.

A. ANY COMPLIANCE TIMELINE MUST CONSIDER THE NUMEROUS FACTORS AND PARTIES INVOLVED TO DEPLOY BACKUP GENERATORS

As noted previously, generators are industrial-size equipment that may require private negotiations to be fruitful as well as the issuance of permits, variances, or other approvals prior to being deployed. The current health crisis in California – and around the world – will likely cause significant delays to all aspects of wireless communications deployment including the issuances of permits, supply chain challenges, and private arms-length transactions with

[23] Rather than subject wireless service providers to a waiver process, the CPUC should consider a certification process where the carrier certifies that backup power has not been deployed at certain identified facilities because it is unfeasible to do so.

[24] Proposal at 2.

landowners. In addition, the wireless industry has been facing a workforce shortage which will be exacerbated by the COVID-19 pandemic, making it difficult to ramp up backup generators deployment at a large scale.

For these reasons, the CPUC should consider setting a realistic effective date deadline that is flexible and allows the industry to remain in compliance during the entire process. Simply put, it is unrealistic to expect that backup generators will be installed instantaneously without consideration of the entire regulatory and legal ecosystem.

B. OTHER TOPICS FOR CONSIDERATION

As the Proposal notes, "environmental and clean air requirements, local fire codes, and building safety rules may disallow the citing of diesel generators or battery arrays at specific sites."[25] Four main topics inhibit or otherwise impede the continuity of wireless services during a power outage.

First, although the Proposal requires providers to "utilize clean energy backup power options (*e.g.*, battery, solar, wind, fuel cell, etc.) as reasonable before using diesel generators to meet the backup power requirement,"[26] diesel remains the primary fuel source because there currently are no existing clean energy solutions that can be deployed at the scale needed. The industry will continue monitoring the development of alternative fuels; however, in the near future, diesel generators will continue to be the only viable choice for the scale needed to comply with the Ruling.

Second, many localities have noise ordinances that effectively preclude the use of large diesel generators often used to provide permanent backup power. Although some jurisdictions

[25] *Id.*

[26] *Id*. at 4.

have recognized the need to waive these rules during blackouts,[27] this approach is not universal. For example, noise complaints in Calistoga forced Pacific Gas & Electric to limit the operation of generators brought online to prevent power outages.[28]

Third, California regulates the amount of run time generators are allowed to operate through its thirty-five Air Districts, many of which have differing requirements. This patchwork of requirements makes it difficult to maintain power at scale across large networks which may cross multiple districts. For example, while both Ventura County APCD and South Coast AQMD limit generators to 200 hours of operation a year,[29] Ventura does not count operations during a failure of electrical power line service towards the 200 hour cap while South Coast does.[30] These inconsistent rules in California present additional challenges to maintain continuity of operations during electrical outages and puts the wireless industry in a tough position to make the choice of whether to operate the generator in violation of these run times or shut the auxiliary power off to avoid fines and other penalties.

Finally, WIA and its members are concerned that despite the recognition that numerous state and local regulatory requirements may preclude compliance with permanent backup

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[27] Matthew Pera, *San Rafael Loosens Noise Limits on Generators*, MARIN INDEP. J. (Nov. 11, 2019), https://www.marinij.com/2019/11/10/san-rafael-loosens-noise-limits-on-generators.

[28] Cynthia Sweeney, *PG&E Reduces Hours of Noisy Backup Generators After Calistoga Complaints*, THE WEEKLY CALISTOGAN (Apr. 30, 2019), https://napavalleyregister.com/community/calistogan/news/update-pg-e-reduces-hours-of-noisy-backup-generators-after/article_f952e201-88d5-5abd-b7ba-1aba2fad1fe7.html.

[29] *See Compliance Advisory*, S. COAST AIR QUALITY MGMT. DIST. (Nov. 12, 2019), http://www.aqmd.gov/docs/default-source/compliance/compliance-advisory---emergency-generators-wildfires---11-12-19.pdf?sfvrsn=4; *Permitting Policy for Backup Utility Generators*, VENTURA CTY. AIR POLLUTION DIST. (Nov. 9, 2000), http://www.vcapcd.org/pubs/Engineering/permits2000/BUG_Permit_Policy.pdf.

[30] *Compare Compliance Advisory*, S. COAST AIR QUALITY MGMT. DIST. at 2 ("If it becomes likely that your facility will exceed its 200 permitted hours for any reason, including PSPS events, you may petition the Hearing Board for a variance from the 200-hour permit condition according to South Coast AQMD Rules.") *with Permitting Policy for Backup Utility Generators*, VENTURA CITY. AIR POLLUTION DIST. at 1 ("Emergency operation when normal electrical power line service has failed will not be counted towards the 200 hour per year limit.").

generator requirements, the Proposal nevertheless requires permanent backup power at all "cellular sites (or their functional equivalents)" absent a waiver.[31] A waiver mechanism would be an inefficient way to address the large category of facilities where the deployment of permanent backup power is precluded by state and local requirements. The better, more efficient approach would be to exempt such facilities from the backup power requirements.

CONCLUSION

For the foregoing reasons, WIA urges the CPUC to (i) clarify and modify the scope of the proposed backup power requirements; (ii) provide a viable timeline for enforcement and compliance that takes into consideration the myriad of factors described above; and (iii) ensure that any such requirements account for conflicting state and local regulations, particularly zoning, environmental, and noise regulations.

Respectfully submitted,

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[31] Proposal at 3.