

STATE OF CONNECTICUT  
CONNECTICUT SITING COUNCIL

IN RE: :  
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REPORT TO THE CONNECTICUT SITING : DOCKET NO. 432  
COUNCIL AND DEPARTMENT OF :  
EMERGENCY SERVICES AND PUBLIC :  
PROTECTION CONCERNING BACK-UP :  
POWER AT TELECOMMUNICATIONS :  
FACILITIES IN THE STATE OF CONNECTICUT : OCTOBER 25, 2012

RESPONSES OF CELLCO PARTNERSHIP d/b/a VERIZON WIRELESS  
TO CONNECTICUT SITING COUNCIL PRE-HEARING QUESTIONS

On October 12, 2012, the Connecticut Siting Council (“Council”) issued Pre-Hearing Questions to Cellco Partnership d/b/a Verizon Wireless (“Verizon Wireless” or the “Company”), relating to the Company’s First Annual Report Concerning Back-up Power at Telecommunications Facilities in Connecticut, dated October 1, 2012 (the “Verizon Wireless Report”). Below are the Company’s responses.

Question No. 1

Provide a list of web-links for similar studies, laws or initiatives in other states other than those listed in the Council’s Administrative Notice List.

Response

Verizon Wireless is not aware of any such studies, laws or initiatives, nor is it aware of other State laws that impose minimum requirements for back-up power at wireless facilities.

Question No. 2

Of the laws listed in the Council's Administrative Notice List identify the states in which your company does business and describe how your company complies with these requirements.

Response

Verizon Wireless is licensed by the Federal Communications Commission ("FCC") to provide wireless service in all 50 states and complies with all applicable FCC requirements in those states in which it currently operates.

Question No. 3

Describe the Federal Communications Commission recent endeavors to resume/initiate an investigation on back-up power.

Response

On July 18, 2012, the FCC's Public Safety and Homeland Security Bureau ("Bureau") issued a Public Notice seeking public comment on the resiliency and reliability of 911 and other communications networks in the wake of the June 29, 2012 storm in the Central, Mid-Atlantic and Northeastern regions of the United States, including with respect to back-up power issues. *See* Public Notice, PS Docket No. 11-60, DA 12-1153 (2012), 77 Fed. Reg. 45607. The Public Notice sought comment with respect to traditional wireline communications networks, broadband communications networks, and wireless communications networks. Bureau staff also is separately investigating the outages associated with that storm.

Question No. 4

Does the Safe Port Act and Stafford Act sufficiently address the carriers need to access each and every site in the State?

Response

The provisions of the Safe Port Act of 2006 that amend Title IV of the Robert T. Stafford Disaster Relief and Energy Assistance Act state that, unless exceptional circumstances exist during an emergency or major disaster, no head of a Federal Agency shall deny or impede access to a disaster site to an essential service provider. "Essential service provider" means, among other things, a provider of telecommunications service that "is contributing to efforts to respond to an emergency or major disaster." Verizon Wireless is not aware of any such access restrictions imposed by any Federal agency head in Connecticut during either Tropical Storm Irene or the October Snow Storm in the Fall of 2011. Please note that this does not obviate the need for state and local agencies to ensure that they not unnecessarily deny or impede such access.

Question No. 5

Describe the need for back-up power requirements.

Response

For several reasons, Verizon Wireless believes that there is no need for back-up power requirements. First, the imposition of a back-up power requirement would be inconsistent with Federal law. (See CTIA Letter to Robert Stein dated October 1, 2012). Second, as discussed in the Verizon Wireless Report, back-up power is already included as part of all Verizon Wireless cell sites. State imposed requirements are, therefore, not necessary. Third, certain site conditions and/or landlord restrictions can limit a carrier's ability to install back-up power (generators) at particular cell sites. (See Interrogatory Responses 6 and 18 below). Service providers thus require flexibility in how backup power resources are deployed, particularly as new technologies and cell site configurations emerge.

Finally, a back-up power rule is unnecessary given the highly competitive nature of Verizon Wireless' business. As the Council is aware from its review of numerous wireless facility applications, Verizon Wireless has made a significant investment in many areas of network development and reliability including the provision of permanent back-up power (generators) at its new tower locations. This effort enables Verizon Wireless to maintain reliable network services for its customers during times of emergency and natural disaster.

Question No. 6

Describe the types of back-up power technologies for temporary/portable back-up power and for permanent on-site back-up power that are feasible, available and cost functional for deployment during a prolonged power outage. List the criteria used in determining what type of generator is utilized at any one particular antenna site.

Response

At cell sites where permanent backup generators are not available, Verizon Wireless utilizes diesel-fueled portable generator units. Permanent sources back-up power (generators) utilize diesel fuel, liquid propane ("LP") gas or natural gas ("NG"), depending upon site-specific circumstances. For example, Verizon Wireless may have a diesel fuel restriction if a particular cell site is proximate to a wetland or other environmentally sensitive area or if the host property is found to have some historic environmental conditions. Use of an LP generator may not be an option if the cell site compound is not large enough to accommodate the required 1,000 gallon LP tank. Verizon Wireless has nevertheless determined that beyond the typical battery backup system, a back-up generator at cell site locations, wherever possible, is the most cost-effective way to provide permanent back-up power.

Question No. 7

Discuss operating conditions as they relate to fuel type, availability, and deliverables?

Response

Cell site operating conditions may affect the type of generator selected at a particular cell site location. If, for example, natural gas (“NG”) is available at a particular site location, delivery of the fuel is no longer a concern. Permanent underground connection to the NG distribution service secures its availability and eliminates the need for scheduled fuel deliveries. More remote cell site locations, on the other hand, may be difficult to access making fuel delivery more of a challenge. In most instances however, generator type and fuel delivery challenges are considered when cell sites are leased, designed and constructed.

Question No. 8

What is the useful life of a battery back-up power source and when does it need to be replaced?

Response

In our experience, battery back-up systems need to be replaced every 5-7 years.

Question No. 9

Is a shared back-up power source technically, environmentally, economically and legally feasible for sites with multiple carriers on cell towers/buildings?

Response

Generally speaking, it is technically feasible to have multiple carriers at a particular cell site sharing an appropriately-sized back-up generator. Environmental, economic and legal considerations would need to be addressed by the carriers on a case by case basis. Verizon Wireless notes that it has also shared its backup generators with local emergency service

providers who may be using a particular tower or antenna site. Due to the load requirements, however, shared generators tend to be larger, louder and therefore potentially more disruptive to cell site neighbors. In addition, if a shared generator unit fails it would impact all of the wireless service providers at that particular cell site.

Question No. 10

What criteria are used to determine whether a particular site is critical or that a particular site would not require back-up power?

Response

Verizon Wireless believes that maximizing the availability of its service, especially in time of emergency, to meet the needs of its customers, warrants, wherever possible, the installation of a permanent back-up power.

Question No. 11

Describe network reconfiguration associated with cell sites out of service? How does this strategy minimize lost coverage?

Response

Network reconfiguration refers to the process of changing the operational parameters of those sites that surround a cell site that is, for some reason, out of service. By doing this, the Company can, temporarily and to a limited extent, expand the coverage footprint of those surrounding sites. Under certain circumstances, a carrier may also look to establish one or more temporary cell sites, using a Cell On Wheels (COW) or a Cell On Light Truck (COLT) to replace a cell site that is otherwise out of service.

Question No. 12

Provide the hierarchy for restoring commercial power for community infrastructure.

(Where do switching office, remote terminals, and cell sites fit in that hierarchy?)

Response

Verizon Wireless' hierarchy for restoring power focuses first on its switch locations; then its cell site "hub" locations; then those cell sites in more populated areas or along major traffic corridors; and finally those cell sites in more rural locations, unless a critical need or emergency exists in a particular rural location.

Question No. 13

Provide a copy of the CTIA The Wireless Association (CTIA) Business Continuity/Disaster Recovery Program. (Annual 10 step certification program for wireless carriers who met planning standards and objectives). Identify each year the carrier has received CTIA certification. If not, identify all other best practices the carriers adhere to and include web links, if applicable.

Response

A copy of the CTIA Business Continuity/Disaster Recovery Program is included as

Attachment 1.

Question No. 14

Compare and contrast the CTIA program with Network Reliability & Interoperability Council (NRIC) Power-Related Best Practices.

Response

The CTIA Business Continuity/Disaster Recovery Program (the "CTIA Program") is a progression of ten steps designed to reflect a wireless carrier's efforts to ensure network

reliability in the event of a disaster. The CTIA Program offers sufficient flexibility to address the broad array of issues the wireless carriers may face. In contrast, the NRIC best practices are a series of specific recommendations in a variety of industry areas focused on network reliability. While the CTIA Program and the NRIC best practices may provide some helpful guidance, it is the wireless carriers themselves that are the experts and primarily responsible for the reliability and resiliency of their individual wireless networks.

Question No. 15

Provide the total number of wireless antenna sites in the State and identify the percentage of back-up power for each of the following: None, 0-8 hours, 8-12 hours, 12-24 hours, one day, and more than one day.

Response

Information regarding the total number of cell sites for each of the wireless carriers is available in the Council's database of telecommunications sites and its comprehensive list of sites. Carrier-specific back-up power systems information is provided in the Verizon Wireless Report.

Question No. 16

In response to the Statewide Hurricane Exercise that was held in July 2012, municipal representatives question whether their local emergency responders can assist with the provision of fuel or other assistance to re-start or maintain telecommunications towers. Please respond to this inquiry.

Response

Verizon Wireless appreciates any assistance that it can receive from local emergency service responders during times of emergency or natural disaster. Verizon Wireless' plans and



procedures, however, call for adequate and appropriate provisions in place to maintain fuel supplies and provide technical support for telecommunications sites that may lose commercial power. Emergency responders' willingness to clear roads and provide access to individual cell sites for fuel and maintenance vehicles as needed would be very helpful. All other technical assistance would be provided by the Company's staff, cell site technicians and contractors.

Question No. 17

List the type(s) of permit(s) required for installing back up power.

Response

Verizon Wireless receives Council and/or local building and zoning approvals, as necessary, for its back-up power systems. Pursuant to R.C.S.A. § 22a-174-3, Verizon Wireless' back-up generators also meet the conditions of the "permit by rule" established by the Connecticut Department of Energy and Environmental Protection ("DEEP"), Bureau of Air Management. Verizon Wireless' regulatory personnel and consultants handle all generator filings with DEEP.

Question No. 18

List constraints that limit types of back-up generators, including, but not limited to, space, weight, environmental, legal and safety.

Response

Some examples of the constraints that may limit the type of back-up generators or the ability to install a generator at all may include:

Space Constraints – Certain tower site leased areas may not contain adequate space for the installation of all radio equipment and a back-up generator, with or without an

external fuel tank, as may be required. A landlord may be unwilling to expand leased area to allow for a required installation.

Environmental Conditions – As stated above, the type of back-up generator installed may be impacted by a cell site's proximity to wetlands or other environmentally sensitive areas, watershed lands or pre-existing environmental conditions at a property.

Weight – A building's roof may be unable to support the weight of the generator unit.

Legal – Wireless carriers in Connecticut do not enjoy the power of eminent domain as part of the facility siting process. The carriers are restricted to that which a landlord will permit them to do on his or her property.

Question No. 19

Identify alternative back-up power sources to responses to Question 18.

Response

Some alternative back-up power sources relied on include: (1) battery back-up systems; (2) permanent back-up generators; (3) portable generators; or (4) back-up generator that may exist on or near a particular cell site location (e.g. municipal police departments; or senior housing complexes).

Question No. 20

Provide a copy of the Wireless Proposal as approved in PURA's Docket 11-09-09 – PURA Investigation of Public Service Companies' Response to 2011 Storms. Is the wireless carrier a participant in the proposal? If not, would the wireless carrier be willing to participate in the proposal?

Response

A copy of the Wireless Proposal submitted and approved in the PURA's Docket 11-09-09 is included as Attachment 2. Verizon Wireless is a participant in this PURA proceeding.

# **ATTACHMENT 1**

**CTIA-THE WIRELESS ASSOCIATION**

**BUSINESS CONTINUITY/NETWORK RECOVERY PROGRAM**

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**Requirement 1: Project Initiation and Management**

*Companies must demonstrate that they have done the following:*

Defined objectives

Developed project plan and budget

Defined and recommended process structure and management

Obtained senior management commitment

**Requirement 2: Risk Evaluation and Control**

*Companies must demonstrate that they have done the following:*

Identified risks, events, and external surroundings that can adversely affect the company

Evaluated the damage that such risks and events could cause and probability of occurrence

Identified controls and safeguards to prevent or mitigate losses to company

**Requirement 3: Business Impact Analysis**

*Companies must demonstrate that they have done the following:*

Identified the critical functions of the organization

Identified the impacts resulting from disruptions and disaster scenarios

Determined recovery priorities and timeline objectives

**Requirement 4: Developing Business Continuity Strategies**

*Companies must demonstrate that they have done the following:*

Selected business recovery operating strategies

Assessed risk associated with each optional continuity strategy

**Requirement 5: Emergency Response and Operations**

*Companies must demonstrate that they have done the following:*

Developed and implemented procedures for responses to situations

Established a process for activation of an Emergency Operations Center

Integrated Disaster Recovery/Business Continuity procedures with Emergency Response procedures

Established Command and Control procedures

**Requirement 6: Developing and Implementing Business Continuity Phase**

*Companies must demonstrate that they have done the following:*

Established and implemented Business Continuity and Crisis Management plans

Established procedures to transition from emergency response to crisis management/business continuity

Established a procedure to maintain and update Business Continuity plans

**Requirement 7: Awareness and Training Programs**

*Companies must demonstrate that they have done the following:*

Established a process to educate the company regarding business continuity issues and programs

Developed and presented training programs

**Requirement 8: Exercise Business Continuity Program**

*Companies must demonstrate that they have done the following:*

Established a process to drill/exercise the Business Continuity/Disaster Recovery Program

Organized and completed exercises/drills

Developed and monitored after-action reports and results of exercises

**Requirement 9: Public Relations and Crisis Communications**

*Companies must demonstrate that they have done the following:*

Developed plans to communicate with employees and management

Developed process to communicate, if necessary, with other stakeholders

**Requirement 10: Coordination with External Agencies**

*Companies must demonstrate that they have done the following:*

Established applicable procedures and policies for coordinating response with government representatives.

# **ATTACHMENT 2**



**DOCKET NO. 11-09-09**  
**WIRELESS CARRIER COMMUNICATIONS PROPOSAL**

**Purpose:** This document describes collaborative efforts between certain wireless carriers<sup>1</sup> (“Wireless Carriers”) and the Public Utilities Regulatory Authority (“PURA”) relating to the mutual sharing of information regarding situational awareness and operational status during times of crisis.

**Scope:** Wireless carriers will provide PURA with certain information described herein regarding operational status in the event of a state and federally declared emergency in Connecticut consistent with the Federal Communications Commission (“FCC”) establishment of the Disaster Information Reporting System (“Declared Event”).

During a Declared Event, such information will be provided to PURA by the wireless carrier on a daily basis, except when there is a material change in status, in which case the wireless carrier will provide PURA with such updated information. Such communications shall be provided for a period sufficient to convey the status of operations during emergency situations. The sharing of such information shall be limited to efforts to stabilize, recover and restore operations to levels necessary to support the communications needs of the carrier’s respective customers within the state of Connecticut. The information provided to PURA is intended to eliminate duplicative requests for such information from various state and local agencies. PURA’s efforts to eliminate and/or minimize such additional requests for information will allow wireless carriers to better service the needs of their customers in the wake of a disaster.

**PURA Information:** PURA will convey and collaborate with wireless carriers to ensure access to important information to aide efforts to stabilize and restore operations within a disaster area within the state of Connecticut. Specifically, the provision of information from PURA related to evacuation routes, commercial power outages and more, will aide wireless carriers in their efforts.

**Wireless Carrier Information:** Wireless carriers will individually convey to PURA mobile voice service operational status information. Such information will consist of the percentage of affected mobile voice operations statewide. Such information in the nature provided will provide PURA with sufficient detail to understand and communicate aggregated information regarding wireless carrier efforts to restore services consistent with industry best practices and the general prioritization of such efforts.

**Confidentiality:** Because any information to be provided to PURA as described herein has both national security and commercial competitiveness concerns, all such information shall be treated confidentially at the submission level under both federal and state law consistent with the following:

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<sup>1</sup> Wireless carriers include AT&T Mobility, Sprint Nextel, T-Mobile and Verizon Wireless.

- The FCC and the federal Department of Homeland Security (“DHS”) have concluded that common carrier network information, including such information maintained by wireless providers, must presumptively be treated as confidential by federal and state government entities in order to ensure that national homeland security efforts are not compromised by the release of confidential service provider network information to the public. See FCC Rules 47 C.F.R. Part 4 *et seq.*
- The public release of information to be shared individually by a wireless provider with PURA is of a nature that if released may result in a safety risk and is provided as part of a preparedness plan and emergency recovery or response plan. As such, all information that is provided shall be deemed exempt from public disclosure pursuant to Connecticut General Statutes Section 1-210(b)(19).
- The information provided is trade secret, highly confidential, propriety and competitively sensitive information and documents the public disclosure of which would cause substantial injury to the competitive position of a wireless provider, and is exempt from public disclosure pursuant to Connecticut General Statutes Section 1-210(b)(5).

In consideration, PURA will ensure that information provided by a wireless carrier will be protected and maintained by PURA and not shared with other wireless carriers, competitors or the general public. Once information is provided to the PURA, the Agency must aggregate and anonymize carrier identification before providing this information to any entity, individual, or upon making such information public. PURA agrees to limit disclosure of any information provided during a Declared Event to the Connecticut ESF 2 Telecommunications Task Force for use during the Declared Event. The process for sharing information as described herein provides a balance of efficiency and effectiveness, allowing for information sharing without imposing any unnecessary burdens or risks on PURA or wireless carriers as it relates to multiple requests for similar information.

**Policy and Reasoning:** PURA and the Wireless Carriers have a long-standing relationship which has resulted in collaborative efforts which have benefitted consumers in the state of Connecticut. The efforts described herein are in furtherance of that relationship and an acknowledgment by both that any and all opportunities to work collaboratively versus the imposition of mandates serves the public interest.

Sharing of information between PURA and Wireless Carriers regarding situational awareness and operational status during times of crisis can be important to reduce the risk and effects of an emergency or disaster. Such information sharing must not be unduly burdensome to the point where it has negative and detrimental effect on safety, restoration and recovery by wireless carriers. While the Wireless Carriers are providing this information in collaboration with PURA, the Wireless Carriers do not waive any legal rights with respect to the jurisdiction of PURA or any other state agency over wireless service. The Wireless Carriers also reserve the right to modify the efforts described herein, as may be mutually agreed to by PURA and the Wireless Carriers, for the benefit of Connecticut consumers.