

**Before the  
Federal Communications Commission  
Washington, D.C. 20554**

In the Matter of	)	
	)	
Improving the Resiliency of Mobile Wireless Communications Networks	)	PS Docket No. 13-239
	)	
Reliability and Continuity of Communications Networks, Including Broadband Technologies	)	PS Docket No. 11-60
	)	

**COMMENTS OF THE UTILITIES TELECOM COUNCIL**

Pursuant to Section 1.405 of the Commission’s Rules, the Utilities Telecom Council (“UTC”) hereby files its comments in response to the Commission’s Notice of Proposed Rulemaking in the above-referenced proceeding.<sup>1</sup> UTC supports the Commission’s efforts to improve reliability and continuity of commercial wireless communications networks, including broadband technologies. While utilities and critical infrastructure industries (CII) primarily rely on their own private internal communications networks, they use commercial networks as well, and having access to publicly available information on the percentage of outages on the network may assist them with making decisions about the network providers whom they use to support their communications needs. UTC emphasizes, however, that the Commission should also promote the reliability and continuity of private wireless communications networks that utilities and CII use to support the safe, reliable and efficient delivery of essential electric, gas and water services to the public at large. Specifically, the Commission should promote access to additional suitable spectrum to support the private wireless communications networks of utilities and CII.

**I. Introduction**

UTC is the international trade association for the telecommunications and information technology

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<sup>1</sup> *Improving the Resiliency of Mobile Wireless Communications Networks*, Notice of Proposed Rule Making, PS Docket No. 13-239, 2013 WL 5422900 (rel. Sept. 3, 2013).

interests of electric, gas and water utilities, pipeline companies and other critical infrastructure industries. Its members include large investor-owned utilities that serve millions of customers across multi-state service territories to relatively smaller municipal and cooperative utilities that may serve thousands of customers in isolated towns, cities and rural areas of the country. In addition, UTC is allied with the all of the major electric, gas and water utility associations, as well as other organizations representing various other critical infrastructure industries – as part of its Critical Infrastructure Communications Coalition.

All of UTC's members own, manage or control extensive communications systems to support the safe, reliable and efficient delivery of essential services to the public at large. Due to the critical nature of these communications systems, they are designed, built and operated to demanding standards that exceed those of commercial communications systems for coverage, availability and survivability. Utilities need ubiquitous coverage all across their service territories, including remote areas that tend to be underserved or unserved by commercial carriers. They also need communications systems that do not become unavailable due to traffic congestion, particularly during emergency scenarios when utilities need reliable communications the most. Finally, their networks need to be able to survive natural and manmade disasters; so they have extended power back-up and they are built to withstand high winds and heavy ice. As such, utility networks are built for reliability; which sets them apart from commercial systems that are designed for capacity.

Although they rely on their own private internal networks, utilities and other CII also use commercial wireless services for communications to support the delivery of their essential services to the public at large. Utilities use commercial networks where they lack coverage on their own private networks or for certain targeted applications. As they deploy smart grid, some utilities have turned to commercial wireless services to meet their needs for communications for certain applications, such as advanced metering. Thus far, utility use of these services for smart grid has been limited, and part of the reason is that utilities do have concerns about the capability of these services to meet utility standards for communications reliability. As such, UTC supports the Commission's efforts to improve the reliability of commercial wireless networks, which may also improve the reliability of utility and CII communications.

UTC emphasizes that the Commission should also promote the reliability of utility and CII private internal wireless communications networks by promoting access to additional suitable spectrum. Utilities and CII need additional suitable spectrum due to increasing demands for capacity and coverage for smart grid and other communications needs. At the same time, the supply of existing spectrum is under increasing constraints due to congestion and interference. Utilities and CII have made efficient use of existing spectrum to support their voice and data communications, but they lack access to any contiguous licensed spectrum below 1 GHz that would support higher capacity requirements for video and other applications. In addition to capacity, they need access to spectrum that will provide the necessary coverage for wide area communications. Currently, utilities need to communicate deeper into their distribution networks to support two-way real-time communications all the way to the customer premises. This will increase visibility into the network in order to support improved outage reporting and real-time situational awareness and self-healing capabilities to automatically reroute around disruptions on the grid. Therefore, UTC continues to urge the Commission to address the need for utility and CII access to spectrum to meet increasing demands for capacity and coverage for their private internal communications needs.

## **II. Proposed Reporting and Disclosure of Percentages of Mobile Wireless Network Sites in Operation During Emergencies.**

The Commission proposes to require CMRS to report the percentage of cell sites that are operational on a county-by-county basis during emergencies when the Disaster Information Reporting System (DIRS) is activated. The Commission invites comment on this proposal, particularly in the context of the costs and the benefits of such an approach. In that regard, the Commission notes that proponents of this approach claim that providing public disclosure of outage information will help consumers to make informed choices regarding the selection of service provider networks. It also notes that different commercial service provider networks fared differently during Hurricane Sandy, which indicates that disclosure of outage information would provide consumers with a real choice between offerings in the context of reliability. Moreover, the Commission notes that similar programs, such as the

Measuring Broadband America (MBA) program, have succeeded in providing consumers with information about the actual network speeds of different service providers, and have also encouraged service providers to improve their performance. Conversely, the Commission notes that opponents of this approach question the efficacy of public disclosure of this information, which may divert resources away from system restoration and which may provide a misleading or distorted impression of the actual performance of the network. Specifically, opponents point out that network outages may be due to other factors besides the CMRS network itself and that actual performance of the network may not be significantly affected by the loss of a cell site. In addition, opponents question whether such an approach would keep pace with industry trends and changes in technology, such as the increasing use of small cells and DAS.

UTC has actively supported the Commission's various different efforts to improve the reliability of commercial services.<sup>2</sup> UTC supported these efforts because utilities and CII do use commercial services to support their core missions and the loss of these communications during emergencies is particularly problematic for utilities and CII because they depend on communications during emergencies to restore service and to protect the safety, security and integrity of operations. Specifically with regard to outage reporting, UTC has commented on the record that such reporting should promote greater reliability by providing metrics against which performance can be evaluated and improved. Moreover, UTC has commented that the benefits of outage reporting should outweigh the burdens. In the present

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<sup>2</sup> UTC filed comments in response to the FCC's *2011 Network Reliability NOI*. See Reliability and Continuity of Communications Networks, Including Broadband Technologies, *et al.*, *Notice of Inquiry*, PS Docket No. 11-60, *et al.*, 26 FCC Rcd 5614, 5615 ¶ 2 (2011) (*2011 Network Reliability NOI*). See also Comments of UTC in PS Docket No. 11-60 (filed Jul. 7, 2011) and Reply Comments of UTC in PS Docket No. 11-60 (filed Sept. 1, 2011). UTC also filed comments in response to the FCC's *Network Outage Reporting NPRM*, See Proposed Extension of Part 4 of the Commission's Rules Regarding Outage Reporting to Interconnected Voice Over Internet Protocol Service Providers and Broadband Internet Service Providers, Notice of Proposed Rulemaking, PS Docket No. 11-82, 26 FCC Rcd. 7166 (2011). See Reply Comments of UTC in PS Docket No. 11-82 (filed Oct. 7, 2011). UTC also filed comments in response to the FCC's *911 Reliability NPRM*, Improving 9-1-1 Reliability, *et al.*, PS Docket Nos. 13-75, 11-60, *Notice of Proposed Rulemaking*, 28 FCC Rcd 3414, 3417 ¶ 5 (*911 Reliability NPRM*). See also Comments of UTC in PS Docket No. 13-75 (filed May 13, 2013). UTC also filed comments in response to the FCC's *2010 Network Reliability NOI*. See Effects on Broadband Communications Networks of Damage or Failure of Network Equipment or Severe Overload, *Notice of Inquiry*, PS Docket No. 10-92, 25 FCC Rcd. 10063 (2010) (*2010 Network Reliability NOI*); See Comments of UTC in PS Docket No. 10-92 (filed June 25, 2010) and Reply Comments of UTC in PS Docket No. 10-92 (filed Sept. 3, 2011).

context of the reporting of the percentage of outages of cell sites by CMRS providers, UTC also supports the Commission's approach and believes that the Commission has fairly balanced the burdens and the benefits.<sup>3</sup>

While UTC supports this latest effort to improve communications reliability and continuity in the context of CMRS, it recognizes that the public disclosure of DIRS information may have its drawbacks and may not accurately depict the reliability and continuity of a CMRS network during emergencies. Specifically, the loss of a cell site may reduce capacity in a given area, but it would not necessarily result in complete loss of service to end users. In addition, the loss of capacity in a given area may be mitigated by the rerouting of traffic on the network as a whole. Conversely, the loss of one cell site that supports a large area may affect more customers than the loss of another cell site that covers only a small area. For example, the loss of a macro cell site (i.e. a tower) may have a greater impact than the loss of a DAS or small cell site, and this would skew the results. This should be a concern for the Commission, given the increasing trend towards the use of DAS and small cells. Similarly, the loss of a cell site may be due to the loss of network backhaul, such as from third party providers, which may affect many cell sites at once and may be beyond the control of the service provider. This could paint a misleading picture of the nature of the outage and the responsibility for it. Finally, it is unclear how such a metric would account for the deployment of cellular-on-wheels (COWs) or cellular-on-light-trucks (COLTs), which may mitigate the impact of the loss of a cell site in a given area. Moreover, there is some question as to whether information disclosure will necessarily result in CMRS providers improving their reliability or whether consumers are driven more by cost and applications than by reliability of service. In short, simply reporting the percentage of cell sites that are out during emergencies only scrapes the surface and may not adequately represent the impact of the outage nor enable customers to fairly compare the reliability of one

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<sup>3</sup> CMRS providers would only need to report the same information that they presently report for DIRS, albeit on a confidential basis. In that regard, UTC agrees with the Commission that the resulting burden on CMRS should be no greater than it is already. In terms of benefits, the public reporting of this information is valuable to keep customers apprised about system restoration and may enable them to make better decisions about the services they buy. In addition, it may encourage CMRS providers to improve the level of services that they provide, as well as help to support service continuity among CMRS providers.

network or another. In addition, these information disclosure requirements may not influence the behavior of CMRS providers to improve their reliability or the behavior of consumers to switch to providers with greater reliability.

UTC recognizes that the Commission is also considering other measures alternatively or in addition to outage reporting in order to improve the reliability and continuity of commercial communications networks, including broadband technologies. Specifically, the Commission is considering alternative information disclosures<sup>4</sup>, the interplay of the Commission's Mobile Measuring Broadband America (Mobile MBA) program<sup>5</sup>, the imposition of performance standards<sup>6</sup>, or the use of voluntary industry measures as ways to improve reliability and continuity of commercial networks<sup>7</sup>. In response, UTC believes that these other measures address various aspects of the potential shortcomings of the Commission's proposal for reporting the percentage of cell site outages. These other measures could provide better information about the actual impact of outages on the network in terms of service availability; they could encourage more timely information that could complement the information that CMRS providers would provide under the Commission's proposal; they could address the root causes of outages, such as back-up power and network diversity; and finally, they could result in more effective results for consumers than regulatory requirements *per se*. As Chairman Wheeler recently remarked, the Commission should favor industry solutions to improve network reliability and continuity, but if these solutions are not being implemented by CMRS providers, the Commission should stand ready to impose

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<sup>4</sup>See *NPRM* at ¶58-59 (suggesting that CMRS providers make available outage maps, like electric utilities already do, and suggesting that CMRS provide detailed information about the practices they have implemented to promote the reliability of their networks, such as the use of back-up power and COWs and COLTs)

<sup>5</sup> See *NPRM* at ¶60 (explaining that under the Mobile MBA program, mobile wireless customers will voluntarily install an "app" that enables their devices to take direct measurements of network performance (e.g., throughput, latency, cell site availability) at specified intervals and upload the data to a central server).

<sup>6</sup> See *NPRM* at ¶61 (asking whether information reporting requirements would obviate the need for mandatory performance standards, or if not, whether and how such performance standards could be implemented, including emergency back-up power requirements similar to those that were adopted by the Commission but never put into effect).

<sup>7</sup> See *NPRM* at ¶63-64 (suggesting that industry code of conducts could be adopted to provide timely and transparent information on network outages).

regulatory measures, including some of the other measures that the Commission has described in the *NPRM*.<sup>8</sup> Therefore, UTC urges the Commission to carefully consider these other measures as an alternative from or in addition to the Commission's proposal to require CMRS reporting of the percentage of cell sites that are out.

### **III. The Commission Should Promote the Reliability and Continuity of Private Internal Wireless Communications Networks by Providing Utilities and CII with Access to Spectrum.**

Given the limited extent to which reporting may actually help to improve reliability and continuity of commercial networks, UTC reiterates that the Commission should support the reliability and continuity of private internal networks that utilities and CII use to support the safe, reliable and efficient delivery of essential electric, gas and water services to the public at large. Specifically, the Commission should promote access to spectrum to help utilities and CII meet increasing demands for capacity and coverage for both fixed and mobile communications over wide areas in order to support smart grid and other overriding national public policy objectives.<sup>9</sup> For example, energy independence and security, as well as cyber security of critical infrastructure are overriding national public policy objectives that would be advanced by access to spectrum for utilities and CII. Utilities and CII need access to contiguous licensed spectrum in bands below 1 GHz to support higher capacity applications, such as video, and to support greater coverage for applications, such as wide area situational awareness and distribution automation. UTC has commented on the need for additional licensed spectrum below 1 GHz in numerous Commission proceedings, and it incorporates its comments by reference in these comments.

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<sup>8</sup> See *Wheeler Stresses Need to Measure Multistakeholder Implementation*, TR Daily (Dec. 4, 2013) (reporting remarks by Chairman Wheeler before the Dec. 4, 2013 Meeting of the Communications Security Reliability and Interoperability Committee (CSRIC) in which he advised stakeholder to implement best practices that are developed by the industry or face the prospect of FCC regulation.)

<sup>9</sup> For example, energy independence and security, as well as cyber security of critical infrastructure are overriding national

#### **IV. Conclusion**

**WHEREFORE**, the premises considered, UTC respectfully requests that the Commission act as requested herein. UTC supports the Commission's latest effort to improve the reliability and continuity of commercial communications networks by requiring CMRS providers to report the percentage of cell site outages on their networks. While these reporting requirements should provide consumers with information to make decisions about the services they buy and should encourage CMRS to provide improved reliability and continuity of services, the Commission should remain mindful that these reporting requirements may be limited in effect, due to potential shortcomings described above. Therefore, the Commission should stand ready to adopt other measures in order to improve the reliability and continuity of CMRS. Finally, the Commission should promote the reliability and continuity of private wireless networks that utilities and CII by providing access to suitable spectrum that is capable of additional capacity and coverage for smart grid and other applications.

Respectfully submitted,

**Utilities Telecom Council**

ss  
Brett Kilbourne, VP and Deputy General Counsel  
Utilities Telecom Council  
1129 20<sup>th</sup> Street, NW, Suite 350  
Washington, DC 20036  
202-872-0030

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