Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of

Improving 9-1-1 Reliability ) PS Docket No. 13-75

Reliability and Continuity of Communications ) PS Docket No. 11-60
Networks, including Broadband Technologies )

COMMENTS OF
THE WESTERN TELECOMMUNICATIONS ALLIANCE

Gerard J. Duffy
Blooston, Mordkofsky, Dickens, Duffy & Prendergast, LLP
2120 L Street NW (Suite 300)
Washington, DC 20037
Phone: (202) 659-0830
Facsimile: (202) 828-5568
Email: gid@bloostonlaw.com

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SUMMARY

The Western Telecommunications Alliance ("WTA") and its rural local exchange carrier ("RLEC") members support the preservation of a reliable telecommunications network and resilient 9-1-1 emergency communications system, but do not believe that there is any need for expanded new nationwide 9-1-1 service and reporting rules at this time.

WTA is unaware of any significant problems with 9-1-1 planning, system failures or similar matters involving large numbers of carriers in substantial portions of the United States. The June 2012 derecho was a unique and isolated event that does not require extensive and expensive nationwide 9-1-1 changes.

RLEC 9-1-1 services not only are functioning in a very satisfactory manner, but also are operating under very different circumstances that 9-1-1 services in urban areas. WTA members and other RLECs have an excellent record of working cooperatively with local authorities to provide reliable and resilient 9-1-1 services to their rural customers. Particularly at this time when RLEC financial resources are severely constricted by increasing broadband investment needs and limited high-cost support and intercarrier compensation revenue streams, they should not be subjected to costly new regulatory and reporting requirements for 9-1-1 service problems which they do not have.

The Commission’s proposed new 9-1-1 service requirements and reporting rules are devised primarily to address potential problems of large carriers in metropolitan areas, and are largely irrelevant and even harmful to disaster recovery efforts by RLECs in their rural service areas. Rather than adopting unnecessary new nationwide 9-1-1 service rules applicable to all carriers, the Commission would be better advised either to exempt RLECs and other small rural
entities from the proposed new rules or, in the alternative, to use its informal complaint process
to identify and resolve the relatively few instances where PSAPs may be unhappy with their
9-1-1 service.
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COMMENTS OF THE WESTERN TELECOMMUNICATIONS ALLIANCE

WTA and its RLEC members fully support the preservation of a reliable and resilient telecommunications infrastructure that ensures the availability of 9-1-1 emergency communications as well as the continuity or prompt restoration of normal residential and business telecommunications services, particularly during times of major disaster. However, WTA does not believe that there is a clear and established need for expanded new nationwide 9-1-1 service requirements and reporting rules for all service providers at this time.

First, WTA is unaware of any significant problems with 9-1-1 planning, system failures or similar matters involving large numbers of carriers in substantial portions of the United States. Rather, the NPRM seems to have been triggered predominately by a single, unique and unusually
destructive derecho that wreaked havoc upon older trees and utility poles throughout significant portions of the Washington, DC metropolitan area in June 2012. Whereas the difficulties encountered by Verizon and perhaps one or two other carriers in restoring service to multiple Public Safety Answering Points (“PSAPs”) took place in full view of the Commission and other federal government entities, there is no indication that the June 2012 derecho constituted more than an unfortunate confluence of unusual circumstances, or that there are significant (much less, widespread) problems or weaknesses with respect to 9-1-1 services nationwide.

Second, WTA members and other RLECs have an excellent record of upgrading their networks and working with local officials and power companies to prepare for and respond to weather and other emergencies. To the best of WTA’s knowledge, no complaints have been filed with the Commission that a WTA member was unreasonably slow or otherwise deficient in restoring service to its rural customers or local PSAPs after an emergency. Particularly at a time when RLECs are squeezed by significant additional broadband investment and deployment needs, limited and capped high-cost support and decreasing intercarrier compensation revenue streams, the Commission should not impose expensive regulatory and reporting burdens upon them to address 9-1-1 service problems which they have not had.

Third, any new or widespread 9-1-1 problems that might emerge as network technology evolves more and more from Time Division Management (“TDM”) to Internet Protocol (“IP”) need to be considered and resolved by a group that includes electric power companies and local governments as well as telecommunications carriers. As plain old telephone service (“POTS”) gives way to fiber optic lines and advanced services, telephone central offices are no longer able to furnish electricity over copper loops to maintain telephone service during local power outages. Rather, homes and businesses and PSAPs need their own reliable primary and back-up power
sources to remain in service, while cellular users must periodically access independent power sources to re-charge their batteries. Likewise, local governments fund, deploy and operate a broad variety of PSAPs that will greatly complicate efforts to develop and comply with detailed “one-size-fits-all” national 9-1-1 rules.

Finally, the proposed new circuit auditing, backup power, diverse monitoring and control link, and outage notification rules and reporting procedures appear designed primarily for large carriers serving urban areas. They will be unduly burdensome and expensive for RLECs and other small entities, and are much more likely to impair than improve the quality of 9-1-1 service and disaster recovery efforts in rural areas.

**Absence of Nationwide 9-1-1 Planning or System Failure Problems**

The June 2012 derecho was a unique and unexpectedly destructive storm that downed many older trees, utility poles, and overhead power and telecommunications lines in the Washington, DC metropolitan area and other portions of the Mid-Atlantic states. It was unfortunately followed by several days of 90-to-100 degree temperatures when widespread power and telecommunications outages could not be quickly repaired because many thoroughfares and neighborhoods were blocked by fallen trees, and many shattered utility poles had to be completely replaced. The limited number of malls and restaurants able to open because they had electric power and air conditioning were inundated with people seeking relief from the heat and an opportunity to recharge their cellular phones.

Whereas the slow and painful recovery from the derecho took place in full view of the Commission and other federal government officials, it must be emphasized that it was a unique and localized event that should not serve as the basis for nationwide policy and regulatory
changes. Although severe thunderstorms were predicted that evening, derechos are rare events (with few long-term residents of the Washington, DC area remembering one within the past 20-to-30 years), and few anticipated or understood how sudden, severe and damaging the storm would be. Moreover, the degree of destruction produced by the June 2012 derecho was largely a function of the fact that it struck densely populated city and suburban neighborhoods with many older tall trees and vulnerable overhead power and telecommunications lines.

Unlike derechos, most weather events and similar acts of nature (including snow and ice storms; hurricanes, tornados and other wind storms; heavy rains and floods; earthquakes and forest fires) are relatively common occurrences in certain regions, and take place in patterns which enable advance planning, advance warning, and often both. WTA is not aware of any widespread instances of inadequate 9-1-1 planning or significant numbers of 9-1-1 system failures that warrant the adoption and implementation of substantial new nationwide 9-1-1 service requirements or reporting rules. In fact, by allowing carriers to continue focusing upon industry standards applicable to the types of local and regional risks and emergencies they are likely to encounter rather than subjecting them to nationwide requirements and procedures, the current Commission policies and standards are more likely to produce effective and efficient 9-1-1 services.

Finally, whereas Verizon may be able to improve its disaster preparation and recovery procedures, it should be noted that the three separate District of Columbia, Maryland and Virginia power companies were overwhelmed by the destruction of the June 2012 derecho and had to bring in repair crews from utilities in other states to restore electricity, and that Verizon personnel often had to wait for fallen trees to be cleared and broken poles to be repaired or replaced by the power companies before they could restore lines and services. To the extent that
the derecho emergency and recovery revealed shortcomings in Verizon’s 9-1-1 planning and service networks, Verizon and local public safety officials can and should be allowed to work together to address and resolve such matters. There is simply no need at this time to impose substantial new 9-1-1 service, testing and reporting requirements upon all large, mid-sized and small carriers nationwide to address the unique problems encountered by Verizon after a single rare and localized storm.

**Excellent RLEC Record of Response to Natural Disasters**

WTA members and other RLECs have an excellent record of preparing for and responding to weather and other acts of nature that can damage and interrupt the operations of the telecommunications and electric power networks serving their rural customers and local 9-1-1 emergency facilities.

As locally owned and/or managed entities, WTA’s members and other RLECs are in constant contact with local governments, public safety agencies and power companies, and have generally and consistently been able to coordinate their disaster preparation and disaster recovery efforts with them. In fact, many RLEC managers and employees wear multiple hats as elected local officials and/or volunteer members of local emergency responders.

Moreover, many WTA members and other RLECs in areas susceptible to natural disasters have upgraded their networks to minimize damage and enable rapid restoration of service. At the behest of local officials and customers and with the encouragement of the Rural Utilities Service (“RUS”), many RLECs in vulnerable areas have buried some or all of their outside plant in underground conduits, which has limited damage and outages from downed or severed overhead lines and has permitted them to focus recovery efforts on restoration of
commercial and back-up generator power. The RLEC industry also has a tradition of nearby RLECs pitching in with maintenance personnel and equipment to assist the recovery of RLECs whose service areas are particularly hard hit by storms or other disasters.

WTA members report that some of the rural counties or communities they serve have made budgetary decisions that limit the nature and capabilities of their PSAPs. For example, some local governments have declined to install multiple, redundant links to their PSAPs. In fact, some rural counties and communities have decided not to establish or operate PSAPs, but instead route emergency calls to and through their local sheriffs or police departments. WTA members work within the limits and budgets adopted by elected local government authorities, and endeavor to provide the best and most reliable 9-1-1 service possible to their customers and service areas under the circumstances with which they must deal. For example, where local governments are unable or unwilling to purchase geographically diverse local loops to their PSAPs, many WTA members will give priority to restoration of the facilities and services of PSAPs after events that disrupt communications in all or part of their local service areas.

To the best of WTA’s knowledge, no complaints have been registered at the Commission alleging that WTA members have been unreasonably slow or otherwise deficient in restoring service to their rural customers or local PSAPs after storms and similar disruptions. In other words, WTA members have dealt with blizzards, ice storms, hurricanes, tornados, high winds, heavy rains, floods, earthquakes and/or forest fires for decades and have been able to restore service effectively and efficiently afterwards without the Commission being inundated with complaints from local officials and customers. This is not to say that there have never been any 9-1-1 problems or errors in RLEC service areas; however, these relatively infrequent issues have been addressed and resolved locally without the need for Commission intervention or oversight.
9-1-1 Issues Require Cooperation of Carriers, Power Companies and Local Governments

Particularly as the public network evolves from TDM to IP technology, 9-1-1 service obligations cannot effectively be imposed solely or predominately upon telecommunications carriers and other service providers, but rather require the participation and cooperation of electrical utilities and local governments as well as individual customers.

Whereas telephone company central offices were long able to supply electric power over copper loops to customer telephones, that era is rapidly coming to an end. Today, increasing majorities of businesses and households require commercial or battery power to operate the variety of fiber optic and wireless facilities, equipment and services they use for communications purposes. As POTS becomes extinct and copper loops are replaced, electric utilities will increasingly become essential partners in the provision of telecommunications and information services, including 9-1-1 emergency services. Put simply, no matter how much backup power batteries can be engineered to provide, ultimately carriers, PSAPs and end users will need reliable commercial power to operate their facilities and equipment and to communicate over the evolving public network during both normal conditions and emergencies. In other words, ongoing technology changes strictly limit the 9-1-1 service responsibilities the Commission can place upon carriers, for continuous and/or rapidly restored electric power is becoming increasingly essential to the performance of such obligations.

In addition, local governments have the full authority and responsibility for designing, constructing, operating and paying for their PSAPs. As noted above, local governments have discretion whether or not to install diverse monitor and control links for their PSAPs, and even whether or not to establish, staff and operate a PSAP. Hence, the 9-1-1 services that carriers can provide to PSAPs are limited by the decisions and actions of local governments. As the NPRM
recognizes, “each individual 9-1-1 network is complex and unique in many ways” such that reliability issues “may not lend themselves to simple solutions based on generalized assumptions.” ¹ It is not clear how the Commission can establish effective new nationwide 9-1-1 service standards and equitable reporting requirements when carriers are subject to diverse PSAP capabilities determined by local governments.

Finally, WTA notes that that the Commission has taken steps to promote the deployment of Next Generation 9-1-1 (“NG9-1-1”), an IP-based architecture designed to provide an expanded array of emergency communications services, including improved 9-1-1 redundancy and reliability. The Commission should monitor the adoption, deployment and impacts of NG9-1-1 before proceeding to implement new or additional regulatory standards and reporting obligations for existing 9-1-1 services.

**Proposed New 9-1-1 Rules Are Not Feasible in RLEC Service Areas**

The proposed new circuit auditing, backup power, diverse monitoring and control link, and outage notification rules and reporting procedures appear to be designed primarily for large carriers serving metropolitan areas, and will be unduly burdensome, expensive and in some cases counterproductive to existing 9-1-1 services in RLEC service areas.

**Circuit auditing.** Most WTA members and other RLECs have installed dedicated circuits between their central offices and the PSAPs they serve, and have placed alarms on these PSAP circuits. Some local governments have requested redundant circuits between the WTA member’s central office and the PSAP, while others have ordered only a single circuit. If a PSAP circuit goes down for any reason, the alarm rings in the RLEC’s central office, or (during

¹ *NPRM*, at para. 6.
hours when the central office is not staffed) in another designated location such as an answering service or an on-call technician’s home\(^2\).

Circuit alarms have worked effectively and economically to enable WTA members and other RLECs to provide continuous 9-1-1 service to PSAPs in their service areas. WTA is aware of no complaints from PSAPs that RLECs were unaware of outages on PSAP circuits for significant time periods, or that they were unreasonably slow in repairing such outages. WTA further notes that in many rural communities, the PSAP circuit alarm systems are backed up by human reporting systems – that is, if a PSAP employee believes that a circuit is not operating properly, he or she immediately calls a local RLEC technician to investigate the matter.

In many cases, PSAP circuit alarms are installed and repaired by equipment vendors. Some WTA members are concerned that their own technicians may not have sufficient training and experience to audit or otherwise test such alarms without risking damage to them. They believe that the interests of public safety in their communities are best served by leaving periodic testing of PSAP circuit alarms to experts employed by their vendors, and that regular auditing or testing of such alarms by local technicians would be more likely to cause problems than to identify them.

**Adequate Central Office Backup Power.** WTA members, other RLECs and PSAPs recognize the need for adequate and reliable backup power in the form of batteries and generators. The appropriate size and capacity of such batteries and generators, as well as the suitable frequency of their testing, depends much upon the location and likely weather conditions affecting an area. For example, a mountain community likely to be snowed in for weeks during

\(^2\) In some states such as Montana and Idaho, groups of carriers have joined together to establish regional or statewide 9-1-1 monitoring and support functions for PSAPs.
certain winters will need different backup power capacities and testing arrangements than a community on the Great Plains that is subject to a spring tornado every decade or so.

WTA is aware of no complaints that RLECs have inadequate or unreliable central office backup power, or that they have inadequately tested their backup power facilities. In other words, there is no perceptible RLEC central office backup power problem requiring new or additional Commission rules. Moreover, even if there were some isolated problems, the weather risks and circumstances vary so much across the different areas of the United States that no single nationwide backup power rule would be feasible for more than a small fraction of service areas.

**Physical Diversity of Monitor and Control Links.** For Verizon in the Maryland and Virginia suburbs of Washington, DC, it makes sense to have physically diverse monitor and control link routes between and among the multiple central offices and PSAPs in these areas. For an RLEC in a small Kansas town, it makes much less sense to install diverse monitor and control link routes to the PSAP or Sheriff’s Office located three doors down the street. Moreover, the town council is likely to decline to spend the money to establish multiple routes between the two locations. How will an RLEC comply with Commission diversity requirements if its local governments reasonably conclude that they are not needed or wanted?

Network Operations Centers ("NOCs") are another predominately large carrier concept. Whereas groups of carriers in some states such as Montana and Idaho have joined together to establish and operate regional or statewide 9-1-1 facilities that operate much like NOCs, for most WTA members and other RLECs their “NOC” is their central office technician and his various wireline and wireless phones.
If the Commission determines, for any reason, to establish physical diversity requirements for PSAP monitor and control links, it needs to limit them to metropolitan areas and to exempt from their scope small carriers and rural communities where they make no operational or financial sense.

**Improved PSAP Notifications.** At least one of the regional or state 9-1-1 service providers transmits outage information to affected PSAPs. However, for most RLECs, their small staffs are so busy trying to distribute generators, locate and repair damaged facilities, and otherwise restore service after natural disasters that they have no time to prepare detailed written notices to PSAPs. Verizon and other large carriers have public relations and other office personnel that can collect information and prepare PSAP notices, but RLECs need to get every able-bodied employee in the field as soon as possible to locate and assess damage and to begin restoring service. Moreover, the RLEC personnel are likely to be, or to be working side-by-side with, the police, fire and other emergency responders associated with the PSAP and who are certain to be well aware of the situation without the need for a Commission-specified notice.

Whereas the Commission’s proposed PSAP notice requirements may make sense in urban areas where most carrier personnel have little or no contact with PSAPs, it would be beyond ridiculous to require an RLEC manager in a small Arkansas town hit by an ice storm to stop and prepare a notice informing the police and volunteer fire personnel with whom he is working to clear fallen trees and repair downed lines of the nature of the service outage, the estimated number of users affected or potentially affected, the location of those users, the actions being taken by his RLEC to address the outage, the estimated time at which service will be restored, and the recommended actions the PSAP should take to minimize the disruption of service.
If the Commission believes that its proposed PSAP notices are needed in urban areas, it should exempt small carriers and rural communities from any such requirements. Otherwise, there is a real danger that disaster recovery will be delayed and public safety impaired by requirements for essential RLEC personnel to waste critical time preparing unnecessary PSAP notices.

**RLEC or Small Rural Carrier Exemption.** In fact, rather than exempting RLECs from certain proposed new 9-1-1 service standards and reporting rules, the Commission can and should adopt an RLEC or other small rural carrier exemption from any and all of the proposed new 9-1-1 service rules. WTA understands that, in the past, the Commission has been reluctant to exempt small entities from requirements affecting public safety. However, in the present case, RLECs and local rural governments have a long and established record of cooperating effectively to plan for and recover from the weather and other risks relevant to their communities. Public safety will be more effectively and efficiently protected by maintaining these localized arrangements that work well in rural areas rather than risking their disruption by trying to impose uniform nationwide, urban-based requirements upon complex and unique circumstances that are not amenable to “one-size-fits-all” solutions.

**Alternative Informal Complaint Approach.** In the alternative, rather than adopting and implementing new and additional 9-1-1 service standards and reporting requirements, the Commission could more effectively and efficiently address any existing 9-1-1 service problems by inviting PSAPs unhappy with their present 9-1-1 service arrangements to file informal complaints identifying the carriers involved and the alleged problems and shortcomings. The Commission would then give the carriers and PSAPs a reasonable time to air their differences and negotiate a solution. If the negotiations proved unsuccessful, the Commission could then
entertain formal complaints and arbitrate or adjudicate the dispute on Section 201 and other generally applicable Communications Act provisions. WTA believes that there would be very few informal complaints, and that virtually all of them would be resolved amicably via negotiation between carriers and local governments. WTA believes that all carriers, large and small, have devoted their best efforts to public safety, and that the excellent telecommunications industry record in this area renders additional Commission regulation unnecessary.

**Conclusion**

The June 2012 derecho was a unique and isolated event that does not require extensive and expensive new nationwide 9-1-1 service standards and reporting requirements. WTA does not know whether Verizon was culpable for any planning or system failures with respect to the unusual storm, but in any event such matters can and should be addressed by Verizon and the affected local governments. WTA members and other RLECs have an excellent record of working with local authorities to provide reliable and resilient 9-1-1 services to their rural customers. Particularly at this time when RLECs are squeezed by increasing broadband investment needs and limited high-cost support and intercarrier compensation revenue streams, they should not be subjected to costly new regulatory and reporting requirements for 9-1-1 service problems which they do not have. Moreover, the Commission’s proposed new 9-1-1 service rules pertain primarily to large carriers in metropolitan areas, and are largely irrelevant and even harmful to disaster recovery efforts by RLECs in their rural service areas. Rather than adopting unnecessary new nationwide 9-1-1 service rules applicable to all carriers, the Commission would be better advised either to exempt RLECs and other small rural entities from the proposed new rules or to eschew such new rules and instead use its informal complaint
process to identify and resolve the relatively few instances where PSAPs may be unhappy with their 9-1-1 service.

Respectfully submitted,
THE WESTERN TELECOMMUNICATIONS ALLIANCE

By: _________________________________
Gerard J. Duffy

Its Regulatory Counsel

Blooston, Mordkofsky, Dickens, Duffy & Prendergast, LLP
2120 L Street NW (Suite 300)
Washington, DC 20037
Phone: (202) 659-0830
Facsimile: (202) 828-5568
Email: gjd@bloostonlaw.com

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