

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of)
)
Reliability and Continuity of Communications) PS Docket No. 11-60
Networks, Including Broadband Technologies)
)
Public Safety and Homeland Security Bureau Seeks) DA 12-1153
Comment on 9-1-1 Resiliency and Reliability in the)
Wake of June 29, 2012, Derecho Storm in Central,)
Mid-Atlantic, and Northeastern United States)

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SUMMARY

T-Mobile USA, Inc. (“T-Mobile”) submits these comments in response to the Public Notice (“*Public Notice*”) seeking comment on the impact of a June 29, 2012 derecho storm on 911 resiliency and reliability. Among other things, the *Public Notice* seeks information regarding the resiliency and reliability of commercial mobile radio service (“CMRS”) networks, including the role of back-up power in the wake of the storm.

Comments filed pursuant to this *Public Notice* will become part of the existing network reliability and resiliency proceeding – PS Docket No. 11-60. The record compiled to date in the docket demonstrates that the CMRS industry is effectively addressing network reliability and continuity issues. By adopting a cooperative approach to developing and updating industry standards and best practices involving key stakeholders – the Commission, carriers, equipment vendors, and other interested parties – wireless carriers are well-equipped with the necessary flexibility to combine permanent back-up power, portable back-up power, portable cell sites, network optimization, and other tools to maintain and restore service in the wake of major storms.

The response to the June 29, 2012 derecho storm that struck much of the eastern portion of the United States demonstrates the effectiveness of these efforts. Although the storm developed with virtually no advance warning and was unprecedented in strength, the vast majority of T-Mobile’s cell sites remained operational in the markets affected by the storm. These types of incidents allow T-Mobile to observe its practices and procedures with an eye toward identifying opportunities for further enhancements.

T-Mobile is dedicated to providing its customers superior wireless service and competes with other wireless carriers daily to deliver on this commitment. Although any loss of service is unfortunate, occasional temporary outages are part of any wireless network. To minimize such outages, wireless carriers have invested billions of dollars over the years to fortify their networks. In fact, many wireless carriers actively incorporate measures in their network management practices – such as network optimization tools – to mitigate outages. The effectiveness of these efforts renders additional regulations unnecessary at this time.

In recent years, the Administration has recognized the importance of making certain that any additional regulations placed upon wireless carriers are designed to address a specific problem. Certain Executive Orders now require the Commission to “propose or adopt a regulation only upon a reasoned determination that the benefits of the intended regulation justify its costs.” Given the effectiveness of the voluntary efforts in this space and the potential burdens associated with any new regulations designed to address network reliability and resiliency, the adoption of a backup power requirement or other regulations designed to address network reliability would seem incongruent with the spirit of these Executive Orders.

In sum, the competitive nature of the CMRS marketplace incents wireless carriers to take appropriate measures necessary to maintain a reliable and resilient network. Voluntary best practices is the preferred approach to supporting network reliability and resiliency as this methodology offers wireless carriers maximum flexibility to appropriately adjust and quickly respond to outage incidents.

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COMMENTS

T-Mobile USA, Inc. (“T-Mobile”) hereby submits comments in response to the Public Notice in the above-referenced proceeding seeking information regarding 911 resiliency and reliability in the wake of the June 29, 2012 derecho storm.¹ As discussed below, the response to this storm demonstrates that the best practices and other evolving efforts of the wireless industry are working to ensure network reliability and rapid service restoration in the wake of major storms.

INTRODUCTION

On June 29, 2012, a unique and relatively rare type of storm – called a derecho – “brought a wave of destruction across wide swaths of the United States.”² Derecho storms are unique because they are relatively rare in the D.C. area – occurring on average once every four

¹ *Public Safety and Homeland Security Bureau Seeks Comment on 9-1-1 Resiliency and Reliability in the Wake of June 29, 2012, Derecho Storm in Central, Mid-Atlantic, and Northeastern United States*, Public Notice, PS Docket No. 11-60, DA 12-1153 (rel. July 18, 2012) (“*Public Notice*”).

² *Id.* at 1.

years –and develop without any significant advance notice.³ For the June 29th storm, which covered more than 700 miles in less than 12 hours, there was less than one day notice.

In addition to the rarity of the derecho from a timing standpoint, the June derecho was extremely rare because it was unprecedented in magnitude for the D.C. area. One of the key metrics for evaluating the strength of derechos is called Convective Available Potential Energy (“CAPE”), which is measured in Joules per kilogram.⁴ CAPE levels between 1,500 and 2,500 are considered large, and anything over 2,500 is extreme.⁵ The CAPE levels associated with the June derecho were astronomical, in excess of 5,000.⁶ The storm produced the all-time highest recorded June or July wind gusts at several official observing sites along its path.⁷ Given the

³ See NOAA-NWS-NCEP Storm Prediction Center, About Derechos, <http://www.spc.noaa.gov/misc/AbtDerechos/derechofacts.htm> (last visited Aug. 17, 2012) (“Derechos Fact Sheet”); Ian Livingston, Could forecasters have better predicted the June 29 derecho?, Wash. Post. Blog (July 3, 2012, 12:58 PM), http://www.washingtonpost.com/blogs/capital-weather-gang/post/could-forecasters-have-done-better-with-the-june-29-derecho/2012/07/03/gJQAbgkwKW_blog.html. Although a smaller derecho struck the area in 2008, NOAA’s website indicates that the last notable derecho to strike the D.C. area occurred in 1991. See *Derechos Fact Sheet*. In fact, although the term derecho has been used since the 1880s to describe this type of storm, most people in the D.C. area had never even heard of a derecho until June 29th.

⁴ See Jason Samenow, *Extraordinary energy: Friday night’s derecho in Washington, D.C.*, Wash. Post Blog (July 1, 2012, 1:47 PM), http://www.washingtonpost.com/blogs/capital-weather-gang/post/extraordinary-energy-friday-nights-derecho-in-washington-dc/2012/07/01/gJQAF2GFGW_blog.html.

⁵ *Id.*

⁶ See *id.*

⁷ See NOAA Storm Prediction Center, June 29, 2012 Derecho: “The Ohio Valley / Mid-Atlantic Derecho of June 2012,” <http://www.spc.noaa.gov/misc/AbtDerechos/casepages/jun292012page.htm#> (last visited Aug. 17, 2012); see also Alon Harish, *Rare 'Derecho' Storm Ravaged Washington Area* (July 2, 2012), <http://abcnews.go.com/US/derecho-storm-ravaged-washington-area/story?id=16696593>.

strength of the storm and lack of significant advance notice, outages to 911 systems and communications networks occurred in the areas impacted by the storm.

Although it is nearly impossible to design a wireless network that is immune from outages, wireless carriers take significant steps to prevent outages and ensure the reliability and resiliency of their networks. For example, T-Mobile has invested billions of dollars to ensure the reliability and continuity of its network; incorporated best practices into its network architecture and day-to-day operations; and has voluntarily assisted in the development of best practices through its active involvement in the Alliance for Telecommunications Industry Solutions (“ATIS”) Network Reliability Steering Committee (“NRSC”), the Network Reliability and Interoperability Council (“NRIC”), and NRIC’s successor, the Communications Security, Reliability and Interoperability Council (“CSRIC”).

The voluntary efforts of T-Mobile to ensure its network reliability and resiliency have proven successful. Despite the hurricane strength winds of the June 29th derecho storm, the vast majority of T-Mobile’s cell sites were operational the following day in the markets impacted by the storm. Network restoration occurred quickly because of the effective implementation of T-Mobile’s disaster recovery policy and procedures. These efforts demonstrate that additional regulations governing the reliability and resiliency of wireless networks are not necessary at this time.

As requested by the Bureau, additional information regarding the impact of the derecho storm and T-Mobile’s restoration efforts is set forth below.

I. CAUSES OF T-MOBILE SERVICE OUTAGES FOLLOWING THE DERECHO STORM

T-Mobile’s wireless network proved reliable and resilient in the wake of the June 29th derecho. Although commercial power was unavailable in many areas, T-Mobile’s Mobile

Switching Offices (“MSOs”) were generally unaffected. For example, the MSO serving the D.C. area did lose power for a period of time following the storm, but it remained operational due to backup power previously deployed at the facility.

With regard to cell sites, as noted above, the vast majority of T-Mobile’s cell sites in the areas struck by the June 29th derecho storm were operational. A relatively small percentage of sites did experience outages of fairly short duration as a result of the storm, with the greatest impact in the D.C. area. The primary cause of cell site outages was the loss of commercial power, which resulted in sites going off air – generally after backup power had been exhausted – until commercial power restoration or connectivity to generators.⁸

Critical cell sites – those adjacent to major traffic routes and structures designed for emergency response, such as hospitals – generally remained operational because they were equipped with an alternative power source. T-Mobile has provided detailed information regarding outages and restoration as part of its Disaster Information Reporting System (“DIRS”) – Lite reports.⁹

For sites experiencing outages, T-Mobile restored service based on its disaster recovery policy and procedures which set forth a restoration prioritization approach called the Network Prioritization Scheme (“NPS”). Moreover, once it learned of the derecho, T-Mobile began

⁸ The vast majority of sites have battery back-up which allows them to continue operating for a period of time after the loss of commercial power. Once the batteries are depleted, however, the sites require an alternative power source.

⁹ The Commission has previously concluded that these reports must be treated as confidential and that the national defense and public safety would be “seriously undermined” if the reports were publicly available. *See New Part 4 of the Commission’s Rules Concerning Disruptions to Communications*, Report and Order and Further Notice of Proposed Rulemaking, 19 FCC Rcd 16830, 16834 (2004). The information provided by T-Mobile as part of the DIRS-Lite process was based on the assurance that it would be treated as confidential and exempt from public disclosure.

implementing its Emergency Operations Plan and Checklist. Pursuant to this plan, a staging area was created to centralize the resources necessary to restore service. Portable generators in the D.C. area were quickly deployed at cell sites without power pursuant to the NPS. More than 100 additional portable generators were then routed to the staging area for the D.C. market to supplement the existing supply and were quickly deployed. To ensure that these generators would remain operational, large quantities of diesel fuel were secured and deployed at the staging area for refueling purposes.

In addition, as restoration efforts were underway, T-Mobile re-optimized its network to extend coverage from operating sites into areas experiencing outages. This minimized the geography in the D.C. area without T-Mobile service. T-Mobile continued to re-optimize its network as sites were restored to service to increase capacity and return the network to the pre-storm configuration.

Based on experience gathered as a result of the derecho storm, T-Mobile believes that service restoration efforts can be significantly improved if the government and local utilities can quickly share information regarding power restoration plans with wireless carriers.¹⁰ If wireless carriers had more information about the power restoration plans of utilities, then the information could be used to facilitate the deployment of generators to other areas with the greatest need. Without this information, wireless carriers may send restoration personnel to deploy generators at sites that will have commercial power by the time the generators are deployed (or soon thereafter) instead of sending restoration personnel and resources to areas that will remain without power for significantly longer periods of time.

¹⁰ See *Public Notice* at 6 (seeking comment on actions that could be taken to facilitate service restoration efforts).

II. IMPACT OF THE DERECHO STORM ON 911 SYSTEMS AND SERVICES

A. Availability of 911 Service Generally

The *Public Notice* seeks comment on the impact of the storm on the availability of 911 services.¹¹ Based on information available to T-Mobile, it appears that most PSAPs in the D.C. area were able to receive 911 calls in the wake of the derecho. In Northern Virginia, however, a few PSAPs experienced outages and were unable to receive 911 calls for a period of time as a result of the derecho storm. The inability of PSAPs to receive wireless 911 calls generally is caused by the following factors, either individually or in combination:

1. The wireless network is out of service;
2. Trunks from the wireless carrier switch to the selective router are overloaded or out of service;
3. The selective router is overloaded or out of service;
4. Trunks from the selective router to the PSAP are overloaded or out of service;
5. The PSAP call center is inoperable due to loss of power or physical damage.

T-Mobile generally has responsibility for the first two factors – which involve the wireless network – with regard to 911 calls placed over its network. The remaining three factors are beyond T-Mobile’s control.

With regard to the availability of 911 during the derecho storm, T-Mobile’s network remained operational even though various cell sites were temporarily knocked out of service. As discussed above, T-Mobile optimized its network to minimize lost coverage associated with cell sites out of service. Although T-Mobile cannot quantify the number of callers that attempted to reach 911 and were unable to do so due to the lack of wireless service, the network reconfiguration should have minimized any impact. Moreover, to the extent T-Mobile’s wireless network remained operational, available data indicates that the trunks from its switching

¹¹ *Id.* at 4-5.

facilities to selective routers in the D.C. area were not overloaded or out of service as a result of the derecho.

Based on the foregoing, the reliability and resiliency of T-Mobile's wireless network did not play a significant role in the inability of the public to reach emergency services by dialing 911.

B. Availability of ALI for 911 Calls

The *Public Notice* seeks comment on the impact the storm had on the provision of Automatic Location Identification ("ALI") information to PSAPs.¹² T-Mobile suffered no outages of its auto-location systems during the storm and aftermath. Thus, any 911 calls placed over the T-Mobile network would have had "Phase 1" ALI information available and most, if not all, would have had "Phase 2" ALI information available. In areas adjacent to cell sites without power, some 911 calls may have experienced degraded "Phase 2" position estimates due to the loss of Location Measurement Units ("LMU") co-located at those sites without power.

Information available to T-Mobile indicates that, following the derecho, there were periods when certain PSAPs were unable to fully service 911 calls. Specifically, T-Mobile noticed a high percentage of 911 calls – particularly in Fairfax County, Virginia – for which there was no ALI query from the PSAP. Lack of an ALI query on a 911 call can be attributed to one or more of the following factors:

1. The selective router is overloaded or out of service;
2. Trunks from the selective router to the PSAP are overloaded or out of service;
3. The 911 caller hung up before the call completed to the PSAP; and/or
4. The 911 caller hung up while in the PSAP's interactive voice response system ("IVR") and before it was transferred to a dispatch console.

¹² *Id.* at 4-5.

These factors are generally an indication of impaired or overloaded facilities and/or insufficient resources at the PSAP to deal with a high volume of calls that may be expected in a weather event such as this.

III. ADDITIONAL COMMISSION REGULATIONS ARE NOT NECESSARY TO ENSURE THE RESILIENCY AND RELIABILITY OF WIRELESS NETWORKS

The *Public Notice* seeks comment on actions the Commission could take to improve network reliability and resiliency in the wake of the derecho storm.¹³ Wireless carriers often use these experiences to identify opportunities to continue to improve upon existing network management practices and procedures. The experience gathered from the storm demonstrates that additional regulations are not necessary and that the voluntary industry efforts to ensure network reliability and resiliency are working effectively.

A. The CMRS Industry Has Taken Numerous Steps to Ensure the Resiliency and Reliability of Their Networks

T-Mobile recognizes the importance of consumer access to communications networks during major emergencies and has worked extensively to ensure the reliability and resiliency of its network. Competitive market forces and strong dedication to servicing customers further ensure that commercial mobile radio service (“CMRS”) carriers deploy and maintain reliable, resilient networks.

T-Mobile’s network has been subject to numerous national disasters over the years and the company has modified its practices and procedures based on lessons learned during these events. The problems experienced by the wireless industry during Hurricane Katrina – the Storm of the Century – provided valuable lessons that have resulted in vastly improved restoration procedures. The response to the June 29th derecho storm demonstrates the merits of these

¹³ *See id.* at 6.

procedures. For example, although the derecho storm knocked out service at numerous T-Mobile sites in several markets, service was quickly restored.

Such rapid service restoration was possible because of the numerous steps taken by T-Mobile to prepare for emergency situations and ensure the continuity of service during disasters. For example, T-Mobile established a Business Continuity Program for disaster situations. This program, which has been certified as meeting the requirements set forth in an industry-wide Business Continuity/Disaster Recovery program sponsored by CTIA,¹⁴ involves all sectors of the company to ensure rapid response during crisis situations. Moreover, this program involves an annual re-certification and is regularly updated with the daily goal of maintaining operations of T-Mobile's network across the country regardless of an event in a given area or region.

T-Mobile also has a well-defined Emergency Management Process which is implemented under the auspices of the Business Continuity Plan. Pursuant to this process, personnel are trained and drilled to handle disasters and critical outages.

Further, T-Mobile developed an Emergency Operations Plan and Checklist that provides detailed instructions regarding the steps that should be taken to prepare for and respond to many emergency situations, including floods, hurricanes, winter storms, volcanos, wildfires, tornados, earthquakes, power outages, and terrorist attacks. For many of these scenarios, the checklist sets forth steps that should be taken at least 72 hours in advance of the anticipated emergency situation. Among the key steps set forth in the plan are the establishment of restoration priority lists for key network elements, mobilization of field/construction crews, testing backup power systems, staging key equipment and supplies (such as replacement parts, generators, fuel, *etc.*)

¹⁴ See CTIA, *Emergency Preparedness/Business Continuity*, http://www.ctia.org/advocacy/policy_topics/topic.cfm/TID/40 (last visited Aug. 17, 2012).

B. The Adoption of a Backup Power Requirement Will Not Necessarily Improve Resiliency and Reliability

The voluntary efforts of carriers to ensure the resiliency and reliability of their networks proved effective in the wake of the derecho storm. Nevertheless, the *Public Notice* seeks comment on whether a backup power requirement will improve reliability.¹⁵ As discussed below, however, the adoption of such regulations will not necessarily improve upon the processes and procedures implemented by T-Mobile to ensure the continuity of service available from its network.

Wireless carriers should be afforded flexibility to determine the best method for ensuring continuity of service. In some cases, carriers may decide that backup power is warranted. In other cases, wireless carriers may choose to deploy additional cell sites that provide overlapping coverage so that if one site is knocked out of service, adjacent sites can be used to provide service to much or all of the area served by the inoperable site. T-Mobile used a combination of these approaches in the areas struck by the derecho storm. It installed battery backup power at most sites, quickly deployed portable generators at critical sites and facilities, and designed its network with overlapping coverage to minimize the impact of outages. Thus, when backup power resources became exhausted, T-Mobile was able to quickly optimize its network to expand coverage from adjacent sites into areas served by cell sites that had gone out of service. This approach minimized the adverse impact of the outages.

Wireless carrier resources are not unlimited. Investments must be balanced carefully, and backup power regulatory requirements will skew investment. For example, a carrier that planned on investing in new cell sites to expand coverage or improve capacity may be forced to forgo such deployment in order to satisfy regulatory mandates regarding backup power. Moreover,

¹⁵ *Public Notice* at 4.

backup power may not be a viable option at many sites due to space constraints, lease restrictions, or other factors.¹⁶

If backup power is mandated, a wireless carrier may be forced to dedicate a specified amount of backup power at a site that may be unaffected by a natural disaster – as opposed to efficiently utilizing limited resources to purchase portable generators that can be quickly deployed to restore power to specific sites actually requiring alternative power. In addition, such a mandate may force a carrier to deploy backup power at a site that may be destroyed by a natural disaster – and therefore incapable of carrying traffic – rather than build an additional site that may continue to serve much of the area within the coverage of the inoperable site. A mandate does not necessarily improve continuity of service and would force carriers to use valuable resources inefficiently.

Rather than adopt regulations that skew investments, the Commission should continue to rely on market forces and certain best practices to drive wireless carriers to improve the continuity and reliability of their networks. Carriers compete based upon consumer confidence in their networks. If a carrier's network has a high incidence of failure, customers will quickly become dissatisfied and switch to a different carrier.

To date, the Commission has not adopted regulations mandating service continuity levels. Nevertheless, the CMRS industry has forged ahead with the NRIC/CSRIC and NRSC to develop numerous best practices and operational procedures designed to ensure the continuity of carrier networks. After studying the issue, however, the CSRIC concluded that it would be impractical if not impossible, to craft best practices that would apply to each participant in the communications industry based on, among other things, the wide variety of network and system

¹⁶ See, e.g., T-Mobile Comments, PS Docket No. 11-60 at 9-12 (July 7, 2011) (“T-Mobile Comments”).

designs, technologies, and capabilities characteristic of the industry.¹⁷ This same logic counsels against adoption of uniform standards by the Commission. There is no “one size fits all” approach to network management standards.

C. A Prescriptive Backup Power Requirement Is Inconsistent With Executive Orders Because It Potentially Would Require Massive Expenditures with Unproven Benefits

The Commission must comply with long-standing mandates set forth in various Executive Orders requiring an assessment of the costs of potential regulations before rules are proposed, and certainly before any regulations are adopted. Pursuant to Executive Order 12866, agencies must “assess all costs and benefits of available regulatory alternatives, including the alternative of not regulating” before adopting new regulations.¹⁸ In particular, agencies must “propose or adopt a regulation only upon a reasoned determination that the benefits of the intended regulation justify its costs.”¹⁹

President Obama reaffirmed these requirements through adoption of Executive Order 13563, which states that agencies must evaluate potential regulations “based on the best available science” and “identify and use the best, most innovative, and least burdensome tools for achieving regulatory ends.”²⁰ This Executive Order was specifically extended to Independent Agencies in July 2011.

The record compiled in the Network Reliability docket, PS Docket No. 11-60, demonstrates that a backup power requirement would be burdensome and with questionable

¹⁷ CSRIC, *Working Group 6: Best Practice Implementation*, Final Report (Jan. 2011), available at <http://transition.fcc.gov/pshs/docs/csric/WG6-Best-Practice-Implementation-Final-Report.pdf>.

¹⁸ Exec. Order No. 12866, 58 Fed. Reg. 51735, 51735 (Oct. 4, 1993).

¹⁹ *Id.* at 51736.

²⁰ Exec. Order No. 13563m 76 Fed. Reg. 3821, 3821 (Jan. 21, 2011).

benefits.²¹ The record also establishes that permanent backup power may not be possible at many sites due to factors beyond the control of carriers, such as space constraints, local zoning regulations, health and safety regulations, lease restrictions, *etc.*²² Moreover, as discussed above, backup power is merely one component of a network continuity plan and, in many cases, other contingency plans – such as the deployment of cell sites with overlapping coverage and the purchase of portable cell sites and generators – may be preferable for promoting resiliency in lieu of installing permanent backup power at sites.²³ In many situations, such as when a cell site is destroyed by a disaster, portable equipment is more valuable than more permanent forms of backup power. Because carrier resources are not unlimited, however, a Commission requirement that carriers deploy more permanent forms of backup power at all sites may restrict the flexibility carriers need to appropriately respond to incidents.

D. Industry Efforts and Competitive Market Forces Ensure that Wireless Networks Remain Reliable and Resilient

The derecho storm should not prompt the adoption of backup power requirements or other regulations designed to address wireless network resiliency and reliability. The competitive nature of the CMRS marketplace has prompted wireless carriers to take the varied steps discussed above to ensure network reliability and resiliency.

Indeed, as noted by the President’s National Security Telecommunications Advisory Committee (“NSTAC”), “market incentives will remain the fundamental driver of industry practices and standards [and] companies will continue to offer services that are as resilient and

²¹ See, e.g., Southern Company Reply Comments, PS Docket No. 11-60 at 6 (Sept. 1, 2011).

²² See, e.g., T-Mobile Comments at 9-12; TIA Comments, PS Docket No. 11-60 at 8 (July 7, 2011) (“TIA Comments”).

²³ T-Mobile Comments at 8-9; AT&T Comments, PS Docket No. 11-60 at 12 (July 7, 2011); TIA Comments at 8; Verizon Comments, PS Docket No. 11-60 at 7, 9 (July 7, 2011).

secure as customers' preferences dictate."²⁴ Similarly, the Department of Homeland Security ("DHS") released a report evaluating the nation's communications infrastructure and concluded:

The communications companies that own, operate, and supply the Nation's communications infrastructure have historically factored natural disasters and accidental disruptions into network resiliency architecture, business continuity plans, and disaster recovery strategies. The interconnected and interdependent nature of these service provider networks has fostered crucial information sharing and cooperative response and recovery relationships for decades.²⁵

The DHS Report also noted that:

Communications Sector owners and operators focus on ensuring overall reliability of the networks, maintaining "always on" capabilities for certain critical customers, and quickly restoring capabilities following a disruption. The sector mitigates cascading effects of incidents by designing and building resilient and redundant communications systems and networks to ensure disruptions remain largely localized and do not affect the national communications backbone.²⁶

The Commission itself has recognized that "as a matter of Congressional and Commission policy, there is a 'general preference that the CMRS industry be governed by the competitive forces of the marketplace, rather than by governmental regulation.'"²⁷ Commission

²⁴ NSTAC, NSTAC Report to the President on Communications Resiliency 14 (Apr. 19, 2011) ("NSTAC Report") available at [http://www.ncs.gov/nstac/reports/NSTAC%20Report%20to%20the%20President%20on%20Communications%20Resiliency%20\(2011-04-19\)\(Final\)\(pdf\).pdf](http://www.ncs.gov/nstac/reports/NSTAC%20Report%20to%20the%20President%20on%20Communications%20Resiliency%20(2011-04-19)(Final)(pdf).pdf).

²⁵ DHS, *Communications: Critical Infrastructure and Key Resources; Sector Specific Plan as Input to the National Infrastructure Protection Plan 2* (May 2007) ("DHS Report") available at <http://www.asfhs.org/asfhs/PDFs/CI-%20Communications.pdf>.

²⁶ *Id.* at 7.

²⁷ *Southwestern Bell Mobile Systems, Inc.*, Memorandum Opinion and Order, 14 FCC Rcd 19898, 19902 (1999).

regulation is warranted only where there has been a market failure.²⁸ There has been no market failure with regard to CMRS. Accordingly, Commission intervention is unnecessary.

CONCLUSION

Network reliability, resiliency, and continuity are important issues that the CMRS industry has expended considerable resources addressing. The voluntary efforts and continuing enhancement of best practices of the CMRS industry have proven effective. The recent derecho storm demonstrates that, despite unprecedented winds striking the D.C. area with little advance warning, CMRS networks remained largely operational and that any wireless outages resulting from the storm were resolved quickly. Accordingly, additional regulations governing network resiliency and reliability – particularly with regard to backup power – remain unnecessary.

Respectfully submitted,
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²⁸ *Orloff v. Vodafone AirTouch Licenses, LLC*, Memorandum Opinion and Order, 17 FCC Rcd 8987, 8998 n.69 (2002); *Implementation of Competitive Bidding Rules To License Certain Rural Service Areas*, Report and Order, 17 FCC Rcd 1960, 1968 (2002).