

**BEFORE THE  
FEDERAL COMMUNICATIONS COMMISSION  
WASHINGTON, D.C. 20554**

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In the Matter of	)	
	)	
Public Safety and Homeland Security Bureau	)	PS Docket No. 11-60
Seeks Comment on Improving Wireless Network	)	
Resiliency Through Encouraging Coordination	)	
with Power Companies	)	
	)	

**COMMENTS OF THE EDISON ELECTRIC INSTITUTE, THE GRIDWISE ALLIANCE, THE  
NATIONAL RURAL ELECTRIC COOPERATIVE ASSOCIATION AND THE UTILITIES  
TECHNOLOGY COUNCIL**

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## SUMMARY

- The Federal Communications Commission (“FCC” or Commission”) should focus on regular engagement with state and local authorities and other stakeholders, given the local nature of disaster events like hurricanes, while also continuing to engage with other Federal stakeholders to inform its policies and to improve service restoration and cross-sector coordination.
- The electric power industry considers it a best practice to engage early with state and local authorities, including embedding electric company staff at emergency operation centers (“EOCs”). The FCC should encourage the communications industry to engage earlier in local emergency planning processes and focus on coordination with state, local and electric companies at the EOCs, where priorities for restoration activities are coordinated.
- To facilitate increased coordination between communications providers and electric companies, the FCC should explore various means for providing electric companies with communications provider-specific information reported to the Disaster Information Reporting System and information about communications providers’ fiber assets. Communications providers should also tag their fiber lines to help expedite identification of which attachments belong to which communications providers or provide locators to electric company crews to facilitate locating underground facilities.
- Communications providers should give greater focus to the hardening of their infrastructure and designing networks to avoid single points of failure.
- Given interdependencies between the two sectors, the FCC should more broadly address communications networks’ reliability, and resiliency, including backup power issues.
- The FCC’s policies discourage hardening of communications networks via practices such as undergrounding and making infrastructure smarter with information technology, in favor of above-ground pole attachments. The FCC’s current policy has favored inexpensive, rapid deployment of communications facilities over the safety, reliability, and equitable cost sharing of electric infrastructure.

## TABLE OF CONTENTS

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I.	Discussion .....	4
A.	Given the local nature of such disaster events, the Commission should focus on regular engagement with state and local authorities and other stakeholders.....	4
B.	The Commission should encourage the communications providers to engage early with state and local authorities and critical infrastructure stakeholders. ....	5
C.	The Commission should promote information exchange to facilitate increased coordination between communications providers and electric companies. ....	8
D.	Communications providers should continue hardening their infrastructure and designing networks to avoid single points of failure. ....	11
E.	The Commission should promote best practices to address communications network back-up power deficiencies.....	14
II.	The Commission’s policies discourage hardening of communications networks via practices such as undergrounding in favor of pole attachments.....	16
III.	Conclusion.....	17

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The Edison Electric Institute (“EEI”), the GridWise Alliance (“GridWise”), the National Rural Electric Cooperative Association (“NRECA”), and the Utilities Technology Council (“UTC”) (collectively the “Electric Trade Associations”) respectfully submit these comments in response to the Public Notice issued by the Federal Communications Commission’s (“FCC” or “Commission”) Public Safety and Homeland Security Bureau (“Bureau”), which requests comments on improving wireless network resiliency through encouraging coordination with power companies, in the above referenced proceeding.<sup>1</sup> The questions in the Public Notice are intended to obtain more detailed information about the nature and extent of coordination between the power and communications sectors and the impact of that coordination on public safety and consumers during outages and service restoration.<sup>2</sup>

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<sup>1</sup> See Public Safety and Homeland Security Bureau Seeks Comment on Improving Wireless Network Resiliency through Encouraging Coordination with Power Companies, PS Docket No. 11-60, (Jan. 3, 2019) (“Public Notice”).

<sup>2</sup> The Bureau previously sought comment on Hurricane Michael preparation and response In the Matter of Public Safety and Homeland Security Bureau Seeks Comment on Hurricane Michael Preparation and Response, PS Docket No. 18-339, (Nov. 16, 2018). See also Comments of EEI and UTC, PS Docket No. 19-339 (filed Dec. 17, 2018).

The Electric Trade Associations submit these comments to help the Bureau identify actions that the Bureau, communications providers and electric companies can take to encourage and increase coordination among these two sectors, before and after an emergency disaster. The Electric Trade Associations also wish to share some lessons learned and best practices that have been developed by the power sector that may enhance the Commission's understanding and awareness of electric power industry readiness, preparation and response with respect to Hurricane Michael and other emergency situations. The issues of electric reliability, resiliency and continuity of communications networks are of key importance to the electric power industry, which also faces unique challenges after such disasters. Moreover, modernization of the energy grid is a national priority, as is facilitating greater broadband deployment, as advanced infrastructure will play an important role in achieving this country's goals of energy reliability, security, and resiliency. In turn, telecommunications providers, like virtually all modern society, rely upon electricity to function and to power their innovative technologies.

EEI is the trade association that represents all U.S. investor-owned electric companies. Collectively, EEI's members provide electricity for 220 million Americans, operate in all 50 states and the District of Columbia and directly and indirectly employ more than seven million people in communities across the United States. EEI's members invest more than \$100 billion each year to build a smarter energy infrastructure and to transition to even cleaner generation resources. Electric companies are among the nation's largest users of communications services and operate some of the largest private communications networks, therefore EEI has filed comments with the Commission in various proceedings affecting the interests of its members.

UTC is the international trade association for the telecommunications and information technology interests of electric, gas and water utilities and other critical infrastructure industries.

UTC's members include large investor-owned electric companies who serve millions of customers across multi-state service territories, as well as smaller rural electric cooperative and public power utilities, which may serve only a few thousand customers in isolated communities or remote areas. UTC's members own, manage, and control extensive infrastructure that they use to support the safe, reliable, and secure delivery of essential services to the public at large.

NRECA is the national service organization for more than 900 not-for-profit rural electric cooperatives that provide electric energy to approximately 42 million people in 47 states or approximately 12 percent of electric customers, including 327 of the Nation's 353 "persistent poverty counties" (93%). Rural electric cooperatives serve 88% of counties of the United States. Rural electric cooperatives were formed to provide safe, reliable electric service to their member-owners at the lowest reasonable cost. Rural electric cooperatives are dedicated to improving the communities in which they serve, and the management and staff of rural electric cooperatives are active in rural economic development efforts. Electric cooperatives are private, not-for-profit entities that are owned and governed by the members to whom they deliver electricity. Electric cooperatives are democratically governed and operate according to the seven Cooperative Principles.

GridWise consists of utilities (of all types), information technology equipment and service providers, National Laboratories, academic institutions, and Regional Transmission Operators ("RTOs") and Independent System Operators ("ISOs") that represent the ecosystem of stakeholders that design, build, and operate the electric system. GridWise has been working since 2003 to advance the modernization of the electric system.

## I. Discussion

The Public Notice asks focused questions about best practices, preparation and response coordination, prioritization of restoration and information sharing, prospective improvements for coordination, government coordination and Commission efforts, and backup power best practices. Accordingly, the Electric Trade Associations<sup>3</sup> respond below to those questions that relate directly to electric company services:

### A. **Given the local nature of such disaster events, the Commission should focus on regular engagement with state and local authorities and other stakeholders.**

The Electric Trade Associations urge the Commission to support long-term, forward-thinking strategies for improving service restoration, infrastructure resiliency, and coordination of response efforts that address communications operations by engaging in a comprehensive strategic approach. Given the interdependencies of critical infrastructure, the Commission should establish ongoing, regular, and substantive meetings with the Federal Energy Regulatory Commission and the U.S. Department of Energy, as well as other federal agencies that are responsible for developing energy and water policies.<sup>4</sup> Additionally, given that the Broadband Deployment Advisory Committee's ("BDAC") Disaster Recovery Working Group is charged with, among other things, developing best practices for coordination among wireless providers, backhaul providers, and electric companies during and after a disaster, the Commission should provide electric companies with greater representation in that group.<sup>5</sup> Expanding the membership of this group to include a balance of electric companies (investor-owned, rural electric cooperatives, and public power)

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<sup>3</sup> These comments do not represent the views of GridWise's members that are unable to participate in advocacy activities (*i.e.*, RTOs/ISOs, National Laboratories, and the Bonneville Power Administration).

<sup>4</sup> See Comments of EEI and UTC at 15-16.

<sup>5</sup> Currently, there are only two electric industry representatives included in this group.

operating in different regions of the nation would help this group make recommendations that will improve wireless network resiliency and continuity of service including improving coordination between the communications providers and electric companies.

Engagement at the Federal level is broadly valuable with respect to issues of national concern, however, given the regional nature of storm events and subsequent restoration efforts and because electric distribution infrastructure is subject to state jurisdiction, the improvement of service restoration requires that infrastructure resiliency and coordination response efforts also be focused at the state and local level. The Commission therefore also should engage with stakeholders like state regulatory agencies (*e.g.*, Public Utility Commissions, and the National Association of State Energy Officials<sup>6</sup> (“NASEO”). It is this level of engagement with stakeholders that could greatly help inform the Commission’s policies and provide a forum for considering ways to improve service restoration and cross-sector coordination in the aftermath of emergencies like Hurricane Michael.

**B. The Commission should encourage the communications providers to engage early with state and local authorities and critical infrastructure stakeholders.**

After a storm event, the primary focus for electric companies is the safe and timely restoration of power; however, electric companies typically will undertake efforts to coordinate and communicate regularly with communications providers regarding their status and restoration status efforts.<sup>7</sup> For example, Southern Company and Gulf Power both report regular coordination and communications with communications providers, including providing communications providers

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<sup>6</sup> NASEO represents state energy offices that have substantial emergency support roles and coordinate with their state’s emergency managers and other relevant state, federal, and local officials.

<sup>7</sup> *See* Comments of Southern Company at 7-8; *See also* Comments of Gulf Power at 6-7.

updates regarding electricity restoration status and efforts.<sup>8</sup> Electric companies typically avoid many coordination problems because they embed with and are in constant contact with state and local officials before, during, and after a storm event like Hurricane Michael.

It is important to note that much of the communication and coordination is designed to occur at the state and local Emergency Management Agency (“EMA”) Emergency Operations Centers (“EOC”) and is available to any communications provider with a representative at the EOC. While electronic and automated systems can help streamline restoration, representation at the EOC by all stakeholders from relevant industry sectors is crucial, as it will improve collaboration, address exceptions, and help maintain confidence and consistency in the recovery process. Accordingly, the Commission encouraging greater involvement by communications providers with state and local officials in this manner would help to avoid some problems that came up during restoration efforts in response to Hurricane Michael. In this regard, the Electric Trade Associations also are concerned that some types of communications providers, such as those providing cable television, traditionally may not have been invited to have representation at the EOC. Given the evolution of the communications industry and the importance of all media for disseminating information during disaster events, it is important that all types of communications providers be in the EOC. The EOC mechanism is designed to provide government, public safety officials, and providers of public services – including electric companies and communications providers – with the information and coordination needed for recovery and restoration. At the EOC, a representative of a communications provider would be able to receive regular updates on the status and location of utility repair or reconstruction work, thus enabling the communications provider to perform its own

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<sup>8</sup> *Id.*

repair and restoration work in a more efficient manner.<sup>9</sup> In addition, a communications provider's representative at an EOC would be able to coordinate directly with government, public safety, and electric company representatives regarding priorities for restoration of specific routes or facilities that may be critical to that communications provider in alignment with the local emergency management process.

The value of coordination at the state and local level EOCs also is confirmed by communications providers. For example, Charter Communications, Inc., reports that, during Hurricane Michael, coordination with local partners, such as state and county EOCs, as well as cell tower providers and carriers, "proved invaluable."<sup>10</sup> Verizon also indicates that as part of "incorporating lessons learned" that it is "leveraging local EOCs to facilitate information sharing among service providers, local government emergency management personnel, and electric utility representatives."<sup>11</sup> Moreover, Verizon is correct that the Commission should consider supplementing the 2017 Atlantic Hurricane Season Report recommendations with potential ways of increasing local government participation in state EMA's efforts and more robust lines of communication between the U.S. Department of Homeland Security's National Coordinating Center for Communications Information Sharing and Analysis Center, state EOCs, and local EOCs.<sup>12</sup>

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<sup>9</sup> See Comments of Southern Company at 13.

<sup>10</sup> See Comments of Charter Communications, Inc., PS Docket No. 18-339, at 3.

<sup>11</sup> See Comments of Verizon, PS Docket No. 18-339, at 16-17.

<sup>12</sup> See *id.* at 19.

**C. The Commission should promote information exchange to facilitate increased coordination between communications providers and electric companies.**

Direct communication between service providers and state and local government EMAs and the relevant state and local EOCs will be the most helpful when coordinating restoration efforts. Even so, the Commission also should promote greater transparency in the sharing of information between communications providers and electric companies to help position resources for improved restoration, which will promote enhanced situational awareness. The electric power industry uses advanced (or “smart”) grid technologies and capabilities to enhance situational awareness to detect and prevent power outages and to restore power more quickly when outages occur. Through the Electricity Subsector Coordinating Council (“ESCC”),<sup>13</sup> the government and private sector share information before, during, and after disasters.

In this vein, Verizon reports that the Commission’s Disaster Information Reporting System (“DIRS”) status reports during Hurricane Michael enabled Verizon to compare its own experience and observation in the field with the aggregate experiences of other service providers.<sup>14</sup> Verizon further explained that “this additional information provided an added benefit of affirming where service restoration challenges were widespread across service providers and not specific to Verizon.”<sup>15</sup> However, electric companies typically do not have access to, or participate in, DIRS and are not privy to information reported to the Commission by other means. To facilitate increased coordination between communications providers and electric companies, the Commission should

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<sup>13</sup> The ESCC serves as the principal liaison between leadership in the federal government and in the electric power sector, with the mission of coordinating efforts to prepare for national-level incidents or threats to critical infrastructure. The ESCC facilitates and supports policy- and public affairs-related activities and initiatives designed to enhance the reliability and resilience of the electric grid. These activities include all hazards, steady-state preparation, and emergency preparedness, response, and recovery for the nation’s electricity sector.

<sup>14</sup> See Comments of Verizon at 18-19.

<sup>15</sup> See *id.* at 19.

explore options for providing electric companies with communications provider-specific information reported to the DIRS and information about communications providers' fiber assets. Access to this information could be made subject to confidentiality and use safeguards, such as pushing the information directly to EOCs where it can drive decision-making, instead of distributing it directly to electric companies.

It is also very important to increase the availability of analytical tools to industry experts responsible for restoration of communications networks or energy grids, which is often coordinated from state-level EOCs. There needs to be more focus on technology solutions that allow the sharing of business and security sensitive information. Such technology could help reduce competitive concerns of communications providers and security concerns of both electric companies and communications providers that might otherwise serve as a barrier to information sharing. For example, the All Hazards Consortium (“AHC”) envisions a trusted digital environment for sharing sensitive information that enables data-driven decision-making among public and private stakeholders to effectively manage disaster situations.<sup>16</sup> AHC is developing a platform that allows participants greater visibility to help prioritize restoration activities by accessing a central trusted place for planning and information sharing that also can serve as a bridge to relevant EOCs. In this program, invested organizations distribute synchronized situational awareness for response and recovery for the whole community of stakeholders. Furthermore, given that using data from unknown sources increases vulnerability and can compromise safety, the program seeks to leverage vetted, trusted professional relationships. Trusted information means that data can drive decision

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<sup>16</sup> AHC is a state sanctioned non-profit organization focused on public/private sensitive information sharing issues in disaster management, business continuity, cybersecurity, research transition, homeland security and supply chain resilience. The focus of the AHC is to improve public/private planning and operational information sharing to get business and communities back to business faster following disruptions and/or disasters.

making and accelerate planning, response, assessments, and the movement of goods and services that save lives. Accordingly, encouraging communications providers of all types to participate in such collaborative arrangements would improve efficiency and readiness by improving the dissemination of important information, eliminating ad hoc efforts to gain information during disaster events, and facilitating users knowing how to interpret information applicable to operational settings and situations.

The Commission also should encourage communications providers to plan for communicating with electric companies about major fiber routes and critical telecommunications paths during future hurricane recovery efforts, including coordinating location services during emergencies. Telecommunications service providers are best positioned to take on the responsibility to proactively inform electric companies where their critical fiber is located. On that point, electric companies have previously suggested to the Commission that “tagging” fiber lines would help electric companies identify which attachments on the poles belonged to which communications providers; and the Electric Trade Associations reiterate this request that communications providers be required to tag their fiber lines. This would promote expedited hurricane response and service restoration. Another solution is for telecommunications service providers to provide locators to electric company crews to facilitate locating underground facilities prior to excavation.

Given the evolving nature of communications networks and electric networks, it also is important that communications providers meet with electric companies regularly and in “blue skies” conditions to identify where electric service is critical to the stability of their communications network. These meetings will provide the opportunity not only to establish critical relationships between electric company and communications provider subject matter experts, but also to identify

locations crucial to network stability in an electric company's outage management system and that should be prioritized during recovery efforts.

**D. Communications providers should continue hardening their infrastructure and designing networks to avoid single points of failure.**

The Electric Trade Associations believe that infrastructure hardening and redundancy (where appropriate) is critical to improving resiliency, readiness, and response. The best way to avoid delays in restoration activities is to harden facilities by elevating sites and designing them to exceed standards for code compliance. For example, electric industry reliability standards are generally developed with an economic (probabilistic) standard for the whole energy grid and the associated assessment of the costs and benefits of investment for reliability. Furthermore, electric power industry reliability standards are developed to provide a "safety net" minimum reliability standard of "N-1" for contingencies on the energy grid. An "N-1" standard refers to the ability to operate without loss of service even after the failure of one key component in the grid. This means that the network is planned such that, with all transmission facilities in service, the energy grid is in a secure state and for any one contingency event, the grid moves to a satisfactory state of operation. However, if more than one contingency event were to occur, an energy grid may have to interrupt the delivery of power to some customers to return to a satisfactory state of operation. The electric industry therefore has developed disaster prevention and recovery plans that factor in the loss of key grid components, such as generating facilities and transmission transformers, while continuing to provide electric power to customers.

It bears emphasis that as part of an effort to modernize the energy grid, the electric power industry also is engaged in the deployment of advanced grid technologies and data analytics that enable the detection of outages, faults, and other system disturbances. For example, smart technology can instantly detect a fault and automatically reroute electricity to keep customers from

losing power.<sup>17</sup> Such smart technology aids in restoration efforts by providing electric companies with tools and information that facilitates storm response and restoration by improving situational awareness and damage assessments. Furthermore, it is very important for electric companies to provide their customers with timely information, and therefore use a variety of telecommunications systems to manage their communications with customers and coordinate industry activities during disaster events.

After Hurricane Michael, electric companies reported that tree and debris removal was a significant factor that led to fiber damage because the fiber that was intertwined in the debris was fragile and became over extended or bent. To address this issue in the future, all communications network designs need to account for the risks of the specific region. For example, an area subject to hurricanes and/or coastal flooding like the Panhandle of Florida should have different network design considerations than an area that is subject to ice storms or an area that experiences wildfires. Such differing risks should be considered in the respective communications provider's network hardening plans.

Communications providers should give greater focus to hardening their infrastructure. Electric companies in Florida have gone through an extensive, successful infrastructure hardening program for the energy grid that minimizes outages and reduces the time to restore service to customers;<sup>18</sup> and communications service providers would likely see similar positive results by

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<sup>17</sup> See Bonneville Power Administration (BPA), *Pacific Northwest Smart Grid Demonstration Project: A Compilation of Success Stories*, page 21, <http://www.bpa.gov/Projects/Initiatives/SmartGrid/DocumentsSmartGrid/A%20Compilation%20of%20Success%20Stories.pdf>.

<sup>18</sup> The Florida Public Service Commission issued a report reviewing how electric companies performed during Hurricanes Irma and Matthew concluding that storm-hardening the energy grid works to reduce power outages. See "Storm-hardening works to reduce power outages, but other improvements needed state regulator says," South Florida SunSentinel (July 31, 2018), <https://www.sun-sentinel.com/business/fl-bz-psc-storm-review-report-20180731-story.html>.

similarly hardening their networks. Some examples of infrastructure hardening would be for communications providers to engage in strengthening their towers and their poles to withstand powerful winds, such as the 155 mph force winds experienced during Hurricane Michael. In addition, implementing extended backup power at wireless towers, wireline communication network centers, and 911 call centers would help communications providers maintain communications when commercial power may be unavailable.

Communications providers should design their networks to avoid single points of failure.<sup>19</sup> For example, Southern Company notes that Southern Linc’s communications network was designed and constructed from the outset to rigorous electric industry-grade standards and, in addition to physically hardened infrastructure, Southern Linc’s system design and construction includes backup power at every site, generators with fuel at almost every site, and redundant backhaul and transport links.<sup>20</sup> Moreover, Southern Company describes how although Southern Linc experienced disruptions in transport due to severed fibers, it quickly overcame these problems through redundant design and planned alternatives such as microwave links.<sup>21</sup> Therefore, in areas where communications providers cannot avoid single points of failure, which was reportedly the case with the fiber running through the Panhandle of Florida, they need to pre-position temporary microwave systems for deployment if substantial damage is experienced. By designing and implementing

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<sup>19</sup> Electric company networks are characterized by diverse routing and redundant systems that avoid single points of failure. The 2006 Katrina Panel Report also identified “single points of failure in vital communications links” as one of the “failures in network resiliency and reliability” associated with that storm. *See Independent Panel Reviewing Impact Of Hurricane Katrina On Communications Networks, Report And Recommendations To The Federal Communications Commission*, at 5-6 (2006) (“Katrina Panel Report”), available at: <http://www.fcc.gov/pshs/docs/advisory/hkip/karrp.pdf>.

<sup>20</sup> *See* Comments of Southern Company at 9.

<sup>21</sup> *See id.* at 14-15.

redundancy and back-up transport alternatives into their systems as Southern Linc has done, carriers can improve the resiliency of their networks.

**E. The Commission should promote best practices to address communications network back-up power deficiencies.**

The Electric Trade Associations support the Commission’s efforts to take steps to ensure that communications networks of all types promote safety of life and property. The Commission has a key role to play in this effort and should take a more active role in ensuring that communications companies take steps to maintain robust, resilient back-up power. Central to its efforts to “encourage and facilitate a ‘reliable nationwide’ infrastructure for communications . . . to meet the Nation’s public safety and other communications needs,” and its broader responsibility of promoting safety of life and property,<sup>22</sup> is promoting the reliability and resiliency of critical communications infrastructure at all times, including in times of natural and other disasters. Thus, the Commission should review and consider recommendations from the BDAC Disaster Recovery Working Group, which encourages the best practice of maintaining enough backup power to ensure continuity of critical communications.

Reliable and resilient communications networks are essential to the day-to-day operations of electric companies across the country, particularly during and in the close aftermath of natural and other disasters, when both communications and electric services may be disrupted. While electric companies substantially own and/or operate independent, dedicated communications networks, many electric companies also rely on commercial networks to support various critical functions, in turn creating interdependencies between commercial and private electric company networks. However, commercial communications networks often are not designed or built to offer the levels

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<sup>22</sup> See 47 U.S.C. § 151. See also Wireless Communications and Public Safety Act of 1999, Pub. L. No. 106-81, § 2(b), 113 Stat. 1286).

of reliability, survivability, availability and/or coverage that are necessary to meet electric company communications needs as critical infrastructure industries (“CII”), particularly in times of emergency. Commercial communications network reliability and resiliency can suffer for various reasons, though the Bureau is correct to recognize in the Public Notice that inadequacy of backup power remains a key issue.

In 2006, the Commission established an independent panel to review the impact of Hurricane Katrina on communications networks (the “Katrina Panel”) and the Katrina Panel Report identified a lack of power or fuel to maintain operation of portions of the telecommunications system as a significant concern.<sup>23</sup> The Katrina Panel Report also cited flooding and backhaul failure as two other primary contributors to most telecommunications network disruptions. In 2007, acting on the findings of the Katrina Panel, the Commission issued an order directing the Bureau to implement several recommendations of the Katrina Panel.<sup>24</sup> Among other actions, the Commission adopted rules requiring communications providers to ensure a minimum level of backup power capability to maintain network operations for a period after the failure of commercial power sources. These rules, which were challenged by several wireless providers, never took effect and were ultimately vacated upon appeal.<sup>25</sup>

While having backup power provided by on-site generators and/or fuel cells at every location may not be economically or logistically feasible, there are standards already existing within the communications industry that address various aspects of carrier communications practices and

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<sup>23</sup> See Katrina Panel Report at 5-6.

<sup>24</sup> *In the Matter of Recommendations of the Independent Panel Reviewing the Impact of Hurricane Katrina on Communications Networks*, Order, 22 FCC Rcd. 10541, 10565 (2007) (“Katrina Panel Order”), *on recon.*, 22 FCC Rcd 18013 (2007).

<sup>25</sup> See *CTIA v. Federal Communications Commission and United States of America*, 530 F.3d 984, (D.C. Cir. 2008).

provide guidelines for the physical and structural components of carrier systems. While some of these standards are rigid, others provide carriers with a good deal of flexibility to account for, among other factors, local conditions. Given the existence of such standards, as well as the nature of communications networks and the need for a certain level of flexibility, there are nonetheless, steps that can and should be taken to ensure that an adequate level of network reliability is timely achieved. To this end, the Commission should consider encouraging prompt development of voluntary, industry-wide best practices aimed at improving communications network reliability and ensuring adequate backup power is in place. The Commission should promote industry engagement and collaboration in the substantive development of any such best practices. In addition, new or expanded best practices would provide valuable guidance to industry and would go far to promote maintenance of reliable backup power.

**II. The Commission's policies discourage hardening of communications networks via practices such as undergrounding in favor of pole attachments.**

The Electric Trade Associations believe that the Commission's current policy has favored inexpensive, rapid deployment of communications facilities over the reliability and safety of infrastructure. As it relates to electric companies, specifically investor-owned electric companies, Gulf Power is correct that the Commission should consider whether and how its pole attachment policies are facilitating or harming partnerships between electric companies and communications attachers.<sup>26</sup> There should be more equitable cost-sharing of infrastructure. In developing pole attachment policies, the Commission should not only ensure that public safety is not negatively affected, but also take into account how its policies have the unintended impact of impeding nationwide efforts to deploy smart infrastructure and develop smart communities by unnecessarily

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<sup>26</sup> See Comments of Gulf Power at 8-9.

increasing costs to be borne by electric customers and diverting resources away from grid modernization. The Commission should also consider whether its policies are impairing or improving electric infrastructure resiliency (which is inextricably linked to communications infrastructure resiliency).<sup>27</sup> Finally, the Commission should consider whether its policies are really incentivizing or disincentivizing strategic underground deployment of critical fiber backbone or making the infrastructure smarter with information technology.<sup>28</sup>

### III. Conclusion

The Electric Trade Associations respectfully request that the Commission consider these comments to improve infrastructure security and resiliency and to promote safe, effective hurricane response and service restoration.

Respectfully submitted,

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<sup>27</sup> For example, are the Commissions' policies encouraging unsafe pole attachment practices or encouraging attachments that are unauthorized or encourage attaching communications providers to ignore basic notice and safety requirements?

<sup>28</sup> See also Comments of the Edison Electric Institute, filed in *In the Matter of Accelerating Broadband Deployment by Removing Barriers to Infrastructure Investment*, WC Docket No. 17-184, at 41-46 (June 15, 2017) (Describing, among other things, how the FCC's rate proposals would harm broadband and discourage joint use agreements between electric companies and Incumbent Local Exchange Carriers).

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