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

In the Matter of	)	
	)	
A National Broadband Plan for Our Future	)	GN Docket No. 09-51

COMMENTS OF UTILITIES TELECOM COUNCIL AND THE EDISON ELECTRIC INSTITUTE

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SUMMARY

Utilities and other critical infrastructure industries (CII) need access to spectrum to support private internal networks that support the safe, reliable and efficient delivery of essential services to the public at large. With the advent of smart grid, CII will need broadband capacity to enable a variety of applications across electric transmission and distribution systems, as well as applications at and within the customer premises. This will entail both wireline and wireless technologies to support fixed and mobile services. CII have the resources to build their own wireline networks, but they are dependent upon the Commission to provide the spectrum they need to build their wireless systems. CII cannot afford to compete with commercial carriers to purchase spectrum at auction, nor are geographic licenses tailored to utility service territories and coverage needs. Moreover, Congress has made it abundantly clear that CII provide auction-exempt "public safety radio services," and thus they should not be forced to compete for spectrum at auction. In addition, spectrum requirements for smart grid implementation should be addressed in a manner that does not create security vulnerability. Therefore as part of its plan to meet nationwide needs for broadband capability, UTC and EEI respectfully request that the Commission designate 30 MHz of spectrum for CII purposes on a nationwide basis, as more fully described below.

This will meet our members' demanding requirements for new communications networks for smart grid, while alleviating their existing networks from congestion and interference. This will also promote the national policy interests in energy independence and efficiency. Thus, the Commission should coordinate with the Department of Energy, the Federal Energy Regulatory Commission, the National

Institute of Science & Technology, state energy regulators, the North American Electric Reliability Council and other organizations to develop a national broadband plan that supports smart grid, as well as broadband.

As the Commission develops its national broadband strategy, it should recognize that CII can and do promote broadband access and competition. For even though they have generally operated private networks exclusively for their own use, some CII -- particularly municipal and cooperative utilities that tend to serve rural and underserved areas -- operate their communications networks for both internal and commercial purposes. Such dual purpose networks make it economically feasible to provide commercial services in areas that could not otherwise be served cost effectively, based on commercial services alone. In addition some CII, including investor-owned utilities, provide wholesale collocation and carrier's carrier services that also facilitate broadband access and competition.

While UTC and EEI fully support the FCC's broadband policy goals, the Commission should not compromise the safety and reliability of critical infrastructure for the sake of promoting broadband. Instead, the Commission can promote broadband by *supporting* the safety and reliability of critical infrastructure. Both utilities and broadband service providers depend on the integrity of the infrastructure upon which they deploy their networks. Thus, pole attachments are not a barrier but a means to advancing broadband deployment. The Commission should foster a partnership between utilities and broadband service providers that promotes investment in – rather than extracting value from – critical infrastructure. The Commission can do that by restoring balance to pole attachment regulations, which have heretofore unfairly favored communications

over utility interests. This imbalance is manifested by rates that include implicit and explicit subsidies, and by access regulations that have had the practical effect of encouraging attaching entities to violate engineering standards and make unauthorized attachments. Therefore, the Commission should eliminate implicit and explicit subsidies and support the enforcement of the terms and conditions of mutually negotiated pole attachment agreements. This will promote the deployment of broadband while maintaining the safety and reliability of critical infrastructure.

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Comments of UTC and EEI

The Utilities Telecom Council and the Edison Electric Institute are pleased to provide the following comments in response to the Commission's Notice of Inquiry in the above-referenced proceeding.[1] UTC and EEI fully support the FCC's efforts to develop a national broadband plan, as more fully described herein.

I. Background and Introduction

UTC is an international trade association for the telecommunications and information technology interests of electric, gas and water utilities and other critical infrastructure industries, including pipeline companies. Its members include investor-owned, municipal and cooperatively organized utilities. These utilities can range in size from large combination electric, gas and water utilities that serve millions of customers in a region to small distribution companies that serve a few thousand customers in isolated communities or rural areas. Despite their differences, they all have two things in common: 1) they own, manage or operate communications systems that support the safe, reliable and efficient delivery of essential services to the public at large; and 2) they own or control poles, ducts and conduit that must meet strict engineering and

[1] *A National Broadband Plan For Our Future*, Notice of Inquiry**,** GN Docket No. 09-51, 24 FCC Rcd 4342 (2009)(Broadband Notice of Inquiry).

safety standards for construction and maintenance. Thus, UTC advocates for public policies that promote critical infrastructure communications systems and protect the underlying poles, ducts and conduit that utilities use to deliver essential services to the public at large.

The Edison Electric Institute is the association of the United States investor-owned electric utilities and industry associates worldwide. Its U.S. members serve almost 95 percent of all customers served by the shareholder-owned segment of the U.S. industry, about 70 percent of all electricity customers, and generate about 70 percent of the electricity delivered in the U.S. EEI frequently represents its U.S. members before Federal agencies, courts, and Congress in matters of common concern, and has filed comments before the Commission in various proceedings affecting the pole attachment interests of its members, who are subject to FCC and state pole attachment jurisdiction.

UTC's and EEI's members may be directly and indirectly affected by the instant proceeding, as both users and providers of broadband networks and services. To be clear, the primary interest of UTC's and EEI's members in this proceeding is in the advancement of policies that promote the availability of broadband networks and services for private internal communications to support the safe, reliable and efficient delivery of essential services to the public at large. Our members are primarily focused on their core services, and they are not competitors in the broadband market – they are users. That said, some members have deployed broadband networks that have been used to provide wholesale transport and collocation and retail broadband services. These utilities are predominately municipal and cooperative utilities, and they tend to be

located in areas that are unserved or underserved by broadband. Thus, they are performing a public service in providing broadband access to the communities they serve; and they are not major competitors in the broadband market. They do however promote access and facilitate competition by providing wholesale and retail communication services in precisely those unserved and underserved areas that the Commission is trying to reach.

UTC's and EEI's members are also interested in this proceeding because it inquires about the impact of pole attachments on broadband access and competition. Investor-owned utilities are directly affected by pole attachment policies, because they are subject to FCC and state jurisdiction. While municipal and cooperatively-organized utilities are exempt from FCC jurisdiction, some states do regulate them too and they tend to follow the FCC's regulations anyway. Thus, all utilities are directly and indirectly affected by the FCC's pole attachment policies. To that point, even unregulated cooperative utilities have filed comments with the FCC that report similar concerns to those of investor-owned utilities about the practical effect that the Commission's policies are having on pole attachments generally. Therefore, UTC and EEI are pleased to offer our comments in this proceeding in order to suggest pole attachment policies that will promote broadband while maintaining safety and reliability.

II. Broadband for Smart Grid

A. Market and Public Policy Forces Behind Smart Grid

Electric utilities are undergoing radical changes in the industry. NERC cyber security and reliability requirements are going into effect;[2] new renewable energy and

[2] *See* NERC Reliability Standards at http://www.nerc.com/page.php?cid=2%7C20. *And see* NERC Critical Infrastructure Protection (CIP) Standards at http://www.nerc.com/page.php?cid=2%7C20. Utilities

carbon emission requirements are being legislated at the state and federal levels; smart grid standards development and technology implementation are underway; and plug-in hybrid electric vehicles (PHEVs) are coming down the pike – which may require utilities to be able to track consumption as PHEVs travel from place to place, control the time of day when PHEVs will be charging so as to reduce peak demand, and manage the electricity that will be fed back onto the grid from the PHEVs.

At the same time, demand is outpacing supply. The DOE estimates that demand will increase 26% by 2030.[3] That will require additional generation and transmission – both of which require years to build. For example, there has not been a single nuclear power plant built in over 30 years, and it takes at least 10 years to build one from planning to construction.[4] In order to be able to meet demand while new generation and transmission facilities are built, utilities are looking to distributed resources, as well as energy efficiency and conservation as alternative sources of electric power.

In this regard, the smart grid is expected to advance the nation's agenda providing a stronger electric grid for the delivery of more reliable power and to provide a critical means to reduce energy consumption and greenhouse gas emissions. It will

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must be auditably compliant with NERC CIP standards this year. Utilities are subject to fines of $1 million per violation per day for failure to comply with these standards. There are also regional reliability standards that also apply. *See e.g.* Western Electricity Coordinating Council Reliability Standards at http://wecc1.guidance.com/Application/ContentPageView.aspx?ContentId=71.

[3] "Annual Energy Outlook 2009 with Projections to 2030", Energy Information Administration at http://www.eia.doe.gov/oiaf/aeo/electricity.html.

[4] *See* "Nuclear Power: 12 percent of America's Generating Capacity, 20 percent of the Electricity," Energy Information Administration at http://www.eia.doe.gov/cneaf/nuclear/page/analysis/nuclearpower.html. Currently, 17 companies and consortia are pursuing plans to build more than 30 reactors in the United States based on five standard designs. *See* "Licensing Nuclear Power Plants" Nuclear Energy Institute at http://www.nei.org/keyissues/newnuclearplants/factsheets/licensingnewnuclearpowerplantspage3/.

support the integration of clean energy resources, provide customers with the information and tools that enable them to make better decisions on how and when they use energy, and provide new possibilities for emerging, environmentally beneficial clean technologies such as PHEVs. Additionally, the smart grid will also support national efforts to achieve energy independence and security objectives. Finally, it is estimated that smart grid will result in the creation of 280,000 new direct jobs, as well as a substantial number of indirect jobs; and that the market for communications equipment to support smart grid will reach $20 billion annually over the next five years.[5]

That is why the White House and Congress have made smart grid a centerpiece of the nation's energy policy. President Obama has made smart grid "a key element of his plan to lower energy costs for consumers, achieve energy independence and reduce greenhouse gas emissions."[6] Moreover, Congress authorized funding for smart grid demonstration grants and smart grid investment matching grants programs as part of the Energy Independence and Security Act of 2007 ("EISA07") and it appropriated $4.5 billion for these programs as part of the American Recovery and Reinvestment Act of 2009 ("Recovery Act").[7] Congress explained that:

> It is the policy of the United States to support the modernization of the Nation's electricity transmission and distribution system to maintain a reliable and secure electricity infrastructure that can meet future demand growth and to achieve each of the following, which together characterize a Smart Grid:

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[5] "The U.S. Smart Grid Revolution, Kema's Perspective for Job Creation" at http://www.gridwise.org/kema.html.

[6] "Locke, Chu Announce Significant Steps in Smart Grid Development," Press Release, May 18, 2009, at http://www.energy.gov/news2009/7408.htm (visited May 26, 2009).

[7] *See* Energy Independence and Security Act of 2007, Pub. L. No. 110-140, 121 Stat. 1492 at § 1304 (2007) codified at 42 U.S.C. § 17384)(EISA07); *see also* American Recovery and Reinvestment Act of 2009, Pub. L. No. 111-5, 123 Stat. 115 (2009) (Recovery Act).

(1) Increased use of digital information and controls technology to improve reliability, security, and efficiency of the electric grid.
(2) Dynamic optimization of grid operations and resources, with full cyber-security.
(3) Deployment and integration of distributed resources and generation, including renewable resources.
(4) Development and incorporation of demand response, demand-side resources, and energy efficiency resources.
(5) Deployment of "smart" technologies (real-time, automated, interactive technologies that optimize the physical operation of appliances and consumer devices) for metering, communications concerning grid operations and status, and distribution automation.
(6) Integration of ''smart'' appliances and consumer devices.
(7) Deployment and integration of advanced electricity storage and peak-shaving technologies, including plug-in electric and hybrid electric vehicles, and thermal-storage air conditioning.
(8) Provision to consumers of timely information and control options.
(9) Development of standards for communication and interoperability of appliances and equipment connected to the electric grid, including the infrastructure serving the grid.
(10) Identification and lowering of unreasonable or unnecessary barriers to adoption of smart grid technologies, practices, and services.[8]

It is important to distinguish between smart grid applications and the networks that support them. Too often, the public policy discussion of smart grid focuses on the applications and forgets that the network is what enables the applications. As utilities deploy smart grid, they will need to enhance and expand their existing communications networks to provide greater coverage and capacity. Smart grid will require real-time two-way communications capability all the way to the customer premises. Today, most utilities rely on one-way communications systems to support relatively slow speed automated meter reading systems. This is only one example of how utilities will need to upgrade their communications networks to enable the multitude of potential smart grid applications that they choose to deploy. But, it shows how the FCC can promote the development of smart grid by providing the spectrum that will be needed to enable a

[8] EISA07 § 1306(d)

variety of smart grid applications.

B. CII Need Broadband Spectrum for Smart Grid

The laundry list of characteristics of the smart grid outlined by Congress in the EISA07 is an indication of all the different applications that fall within the broad concept of the "smart grid". But one thing is certain: all these applications will need bandwidth to enable them and every additional application implemented by a utility will require additional bandwidth – some more than others. Consider the following estimates of the bandwidth budget necessary for certain smart grid applications:

- Substations 0.2-1.0 Mbps per advanced substation
- Meters (advanced) 1.85 -2.0 Mbps per million meters (steady reads)
- Smart Sensors 500 Mbps - 4.75 Gbps per 10,000 devices.[9]

While many of these applications can be supported by wireline technologies, many will also require broadband wireless technologies.

UTC surveyed its members in 2005 and 2007 to determine their spectrum requirements to support smart grid and other private internal communications for CII. UTC documented the various radio systems that CII operate and the spectrum that they use. Based on the survey as well as a 2002 study by KPMG, UTC determined that at least 30 MHz of spectrum would be necessary to meet CII needs for voice and data communications to support fixed and mobile applications. To free up the necessary spectrum, UTC asked policymakers to harmonize the U.S. with Canada, which has allocated the 1800-1830 MHz band to support its electric grid. UTC also called on the FCC to act on a petition (FCC RM-11429) that would give CII secondary access to

[9] *See* Charlie Arteaga, IBM, "Smart Grid, the Secret Sauce of BPL," a presentation to the United Power Line Council 2007 Annual Conference, Dallas, Texas.

additional frequencies as a means of easing spectrum pressure.[10]

There are several reasons why CII need this spectrum. First, CII have been losing access to spectrum, due to refarming, rebanding, and pure reallocation forcing their removal from several critical allocations. This has resulted in increased congestion and interference to existing radio systems, as well as systems that are more costly to retain the same amount of reliable coverage. Second, CII need private internal systems to support their critical infrastructure systems; commercial systems are not suited to utility needs for various reasons. Specifically, the public telephone networks become overloaded and can be unavailable during and in the aftermath of emergencies and natural disasters. CII need to have a communications system they can count on, and most commercial systems are not designed to withstand hurricanes and do not have the battery back-up CII need to communicate in areas where power has been knocked out. While CII do make some use of commercial systems, these are usually secondary communications, and UTC estimated that commercial systems might only account for 10% of utilities' spectrum needs.[11] Utilities must not be forced to use commercial communications services for their private internal communications, because commercial systems generally do not meet the reliability and security standards of utilities.[12]

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[10] The Utility Spectrum Crisis, A Critical Need to Enable Smart Grid, Utilities Telecom Council, January 2009 at http://www.utc.org/fileshare/files/3/Public_Policy_Issues/Spectrum_Issues/finalspectrumcrisisreport0109.pdf. (Note that this includes 10 MHz for nationwide voice dispatch and 20 MHz for high speed data to support vehicular data, AMI, and smart grid and security needs.) *Id*.

[11] *See* "Hurricanes of 2005: Performance of Gulf Coast Critical Infrastructure Communications Networks", Utilities Telecom Council, November 2005, at http://www.utc.org/research-information/white-papers-0 (UTC Gulf Coast Hurricane Report).

[12] As noted elsewhere within these comments, utilities are subject to reliability and security requirements from FERC and NERC, as mandated under the Energy Policy Act of 2005, Pub. L. No.109-58. *See also* Energy Independence and Security Act of 2007, Pub. L. No. 110-140 (requiring development of interoperability standards for smart grid). Utilities cannot afford to hand over the liability for their

Similarly, unlicensed spectrum systems have their own issues with reliability, due to inherent concerns with interference and congestion; hence CII tend to use unlicensed spectrum systems– if at all -- for secondary, non-essential communications. Accordingly, CII need access to licensed spectrum that is dedicated for CII purposes; and if the Commission does conduct a "spectrum census" or "spectrum inventory", it should give priority to CII by promoting access to additional spectrum for CII purposes and protecting existing bands used by CII from further degradation.[13]

There are several reasons, including the FCC's own rules, why CII cannot and should not be asked to acquire this spectrum at auction. First, the utility industry as a whole is undergoing restructuring, consolidation and downsizing – and as such is under intense economic pressure to minimize costs. It is virtually impossible to conceive that a state regulator would approve a large, yet unknown amount of capital expense so that a utility could compete against commercial operators for spectrum, with no guarantee of success and large additional outlay needed for system build-out. Furthermore, CII cannot offset the costs of acquiring spectrum at auction through the recovery of commercial service revenues; CII networks are used exclusively for private internal communications. Beyond state-regulated utilities, municipalities generally are prohibited by statute from engaging in activities such as spectrum auctions; and

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communications reliability to a third party – if the network, subject to other demands and built to a consumer-serving economic model, should not perform as needed (regardless of any service level agreement). The utility must answer to regulators and the communities it serves for the resulting delay in response, longer outage or any other problems caused by defective communications.

[13] The Commission asks whether it should conduct a "spectrum census" or "spectrum inventory" to identify spectrum bands that may be suitable for wireless broadband services. *See* Broadband Notice of Inquiry at ¶44. UTC supports the Comments of Southern Company, which suggest that the Commission relax the eligibility restrictions in the 700 MHz and 4.9 GHz bands and which suggest that the Commission evaluate the "use" of the spectrum according to the purpose for which it is used, not merely the amount that it is used.

cooperatives – owned by their mostly rural customers – are completely unable to compete financially. Even if CII could afford to compete with commercial carriers in a spectrum auction, the geographic areas that are licensed do not conform to the service territories of CII. Thus CII either must bid for more coverage than they need, or not enough. Finally and most importantly, CII provide "public safety radio services," which are auction-exempt. Congress and the FCC have agreed that they should have access to spectrum without participation in an auction.[14] This promise, however, has never been fulfilled.

For all of these reasons, UTC and EEI respectfully request that the Commission support the allocation of at least 30 MHz of spectrum to CII, as defined previously by the FCC.[15] Such an allocation could be harmonized with a similar allocation that is underway in Canada. Industry Canada is completing a proceeding to allocate 30 MHz of bandwidth below 2 GHz for use to benefit the electric grid. Specifically, it has decided to reallocate the 1800-1830 MHz band to support the operations, maintenance and management of the electricity supply. Industry Canada explained that the purpose of this allocation is to support distributed generation, smart metering, and to enable electric utilities to comply with new reliability requirements for substation monitoring and control that were instituted by the North-American Electric Reliability Corporation (NERC) in the aftermath of the Northeast blackout in 2003.[16] These factors apply with

[14] *See* Pub. L. No. 103-66, Title VI, § 6002(a), 107 Stat. 312, 387 (1993). See also *Implementation of Sections 309(j) and 337 of the Communications Act of 1934 as Amended*, First Report and Order, WT Docket No. 99-87, 15 F.C.C.R. 22709 at ¶¶77-78 (2000)(agreeing with UTC that critical infrastructure industries provide public safety radio service).

[15] *See* 47 C.F.R. §90.7.

[16] See http://www.ic.gc.ca/epic/site/smt-gst.nsf/en/sf08971e.html for more information on this proceeding.

equal force to a harmonized allocation of 30 MHz in the U.S.

In the United States, 1800-1830 MHz is allocated currently for Federal Government use. The Commission could serve an important role in promoting the use of this band for CII purposes by coordinating with the Federal agencies that are using the spectrum, as well as coordinating with energy regulators at all levels of government, including the Department of Energy, the Federal Energy Regulatory Commission, and state public utility commissions. The Commission should also coordinate with industry organizations such as NERC and agencies such as NIST, which are working to develop standards for infrastructure reliability and smart grid interoperability.[17] Importantly, the spectrum must allow flexible use to permit CII to select appropriate bandwidths for certain CII applications, and it must be made available in a timely manner so as to enable harmonization with Canada, which will promote economies of scale that will drive down costs and promote interoperability at the opening stages of smart grid implementation. UTC and EEI look forward to assisting the Commission in these efforts.

C. CII Promote Rural Broadband Access and Competition

As the Commission considers options for promoting broadband access and competition, it should recognize that CII can serve an important role in achieving that goal. As explained above, CII operate extensive, robust communications networks that reach areas that are not currently served by commercial carriers. These networks include both long haul and last-mile wireline and wireless technologies. These networks

[17] NIST is required under Section 1305 of the EISA07 to develop a framework for smart grid interoperability. It has held two workshops and its goal is to develop the roadmap for smart grid interoperability by September of 2009. *See* http://www.nist.gov/smartgrid/. *See also*, "Locke, Chu Announce Significant Steps in Smart Grid Development" at http://www.energy.gov/news2009/7408.htm. ("Smart Grid is an urgent national priority that requires all levels of government as well as industry to cooperate.")

could be used to provide wholesale or retail communications services to unserved and underserved areas. Municipal and cooperatively organized utilities tend to serve rural and isolated communities, and are uniquely positioned to provide last mile broadband access to the customers in these areas. Investor-owned utilities tend to have large, multi-state service territories, and are uniquely positioned to provide wholesale long-haul broadband services, as well as last mile access in parts of their service territories that are unserved or underserved.

CII have used their private internal networks to provide broadband services. For example, Douglas County PUD is located in central Washington State and it operates its Douglas County Community Network (DCCN), which is a high-speed, broadband network originally designed for Douglas County PUD's electric needs. The current backbone, developed over the last several years, includes hundreds of miles of fiber-optic lines, connecting several towns throughout Douglas County. In addition to supporting utility applications, this network provides capacity for services, such as Internet access, being made available to residents, government agencies and businesses in Douglas County. Douglas County has partnered with multiple service providers that provide retail broadband services to customers. Connection speeds are reportedly upwards of 20 mbps and price varies depending on the service package and the provider.[18]

There are numerous municipal utilities like Douglas County PUD that provide broadband services to their communities. The principal reason that municipal utilities offer broadband is because their communities currently lack broadband access, or it

[18] For more information about DCCN go to http://www.dccn.net/.

costs too much. By bringing broadband to these communities, municipal utilities are providing a public service. In addition to providing their customers access, they are also promoting economic growth because broadband connectivity attracts business. That creates jobs, and it enables small businesses and farms to better compete in the market. Some municipalities may provide service directly, or they may opt to provide wholesale connectivity that other service providers use to offer retail commercial services. As such, municipal utilities are a good example of how utilities can help the FCC meet its goals of promoting broadband access to unserved and underserved areas.

Similarly, many cooperative utilities are offering broadband services to their customers, who are also members of the cooperative. For example, seven electric cooperatives serving 200,000 customers in Alabama, Indiana, Michigan and Virginia are providing broadband access to their customers, using BPL service provided by IBEC and IBM.[19] This service was funded in part with loans from the USDA's Rural Utility Service broadband loan program. The first seven co-ops to participate in the BPL rollout include: Cullman Electric Cooperative in Alabama; Utilities District of Western Indiana REMC, Parke Country REMC and South Central REMC in Indiana; Midwest Energy Cooperative in Michigan; and BARC Electric Cooperative and Central Virginia Electric Cooperative in Virginia. These are just seven of nearly 900 electric cooperatives in the United States providing 45% of the total electric grid and covering 75% of the land mass in the U.S. All of the cooperatives in this rollout reported that the decision to go forward was driven by significant customer demand for broadband access in their

[19] http://finance.yahoo.com/news/IBM-and-IBEC-Initiate-iw-14396782.html

service territories.[20] More recently, Washington Island Electric Cooperative in Wisconsin announced that it would also be installing BPL in partnership with IBEC; and it will be using the network for utility applications as well as to provide broadband Internet access to its customers.[21]

Investor-owned utilities have tended not to compete in the retail broadband service market for a variety of reasons. Instead, they have limited themselves to relatively low- risk wholesale services, such as carrier's carrier and wireless collocation. Even though they do not compete in the retail market, they facilitate broadband access and competition by enabling service providers to leverage their infrastructure. In response to growing interest among utilities in providing collocation and other related services, UTC created the UtiliSite Council in 2007. A wide variety of utilities in the country, from large investor-owned entities to cooperatives, are members of the UtiliSite Council.[22] Currently, there are fifteen member utilities, representing 36,000 collocation sites all across the country. These companies serve as examples of how utilities have promoted broadband deployment by leasing access to their infrastructure to other service providers.

III. Pole Attachments and Broadband

A. Background

In its Notice of Inquiry, the Commission has asked "to what extent do … pole attachments … stand as impediments to further broadband deployments where such

[20] *Id*.

[21] Paige Funkhouser, "Island looking for faster logon" at http://www.ibec.net/newsarticle.php?id=1, Visited May 26, 2009.

[22] For a list of members and collocation services they offer go to http://www.utilisite.org/node/7.

deployments would be made by market participants in the absence of any government-funded programs?"[23] Far from impediments, pole attachments facilitate broadband deployment. Utilities provide nondiscriminatory access at cost-based rates under the FCC rules. They must approve or deny an application for pole attachments in writing within 45 days, and the cost-based rates are only a small percentage of the fully-depreciated, historical cost of the pole. As such, pole attachments are a means of quick, cheap access for CATV operators and CLECs to provide broadband services, as well as their underlying cable television and telephone services.[24]

The Commission has initiated a rulemaking proceeding to consider pole attachment issues with regard to access and rates for broadband attachments.[25] Specifically, it has proposed the adoption of a single uniform rate for pole attachments that are used to provide broadband services, and it has tentatively concluded that this rate should fall within the range of the current rate for CATV and CLEC attachments. It has also raised a number of related questions concerning its jurisdiction to implement such a rate, including whether such a rate could be applied to ILEC attachments and wireless attachments that are used to provide broadband services. In regards to access, the Commission has asked for comment on certain "best practices" for pole attachments, and it has asked about certain illegal practices by attaching entities,

[23] Broadband Notice of Inquiry at ¶51.

[24] It is specious for CATV and telephone providers to claim that pole attachments are holding back broadband, when they are deploying FTTH and FTTN broadband networks and they report record profits. Pole attachments represent a small fraction of their overall costs of broadband deployment, and they are rapidly deploying FTTH and FTTN networks to targeted areas in their service territories.

[25] *Implementation of Section 224 of the Act; Amendment of the Commission's Rules and Policies* Governing Pole Attachments, WC Docket No. 07-245, RM Docket Nos. 11293, 11303, Notice of Proposed Rulemaking, 22 FCC Rcd 20195 (2007).

including unauthorized attachments. UTC and EEI filed comments in the proceeding and refer the Commission to their statements there.[26]

B. Promoting Broadband Through a Pole Attachment Partnership

UTC and EEI believe that the Commission should encourage a partnership in pole attachments between electric utilities and attaching entities that will promote the deployment of broadband. Electric utilities and attaching entities alike rely on the underlying poles, ducts, conduit and rights-of-way (i.e. critical infrastructure) to support their core businesses. Each party has a stake in ensuring that this critical infrastructure is maintained through the recovery of all costs and by the installation and maintenance of pole attachments in compliance with all applicable engineering and safety standards. Therefore, the Commission should foster a regulatory environment that recognizes our shared mutual interests in maintaining the safety and reliability of the underlying infrastructure and promotes investment in it, rather than extraction of value from it or diminution of its safety and reliability.

Unfortunately, the Commission's pole attachment policies have inappropriately subsidizing the communications industry for decades. The current rates for CATV and CLEC attachments include implicit and explicit subsidies, which should be eliminated, as described more fully in comments UTC and EEI filed in the FCC's pole attachment proceeding. The Commission should not perpetuate these subsidies by adopting a broadband rate that falls between the existing CATV and CLEC rate, nor does it have jurisdiction to extend such a rate to ILECs, which are explicitly excluded from FCC

[26] Comments of The Edison Electric Institute and Utilities Telecom Council in WC Docket No. 07-245 (filed Mar. 7, 2008). Reply comment of the Edison Electric Institute and Utilities Telecom Council in WC Docket No. 07-245 (filed Apr. 22, 2008).

jurisdiction under Section 224(a)(5) of the Communications Act. Instead, the Commission should adopt a rate that is slightly more than the current CLEC rate, as more fully described in UTC's and EEI's comments in the FCC's pole attachment proceeding, and this rate should only be applicable to entities (i.e. CATV operators and CLECs) that are within the FCC's pole attachment jurisdiction. This would provide parity between providers that currently pay different rates under pole attachment regulation, which would promote a level playing field for competition among broadband service providers.

Similarly, the Commission's pole attachment policies have encouraged attaching entities to make unauthorized attachments and to make attachments that do not comply with engineering and safety standards. The Commission's jurisprudence in cases involving the enforcement of penalty provisions within mutually negotiated pole attachment agreements has limited utilities to the recovery of back rent to five years or the date of the last pole attachment audit, whichever is less. This has encouraged scofflaws to make unauthorized attachments, because there is really nothing for them to lose. The most they will have to pay is restitution – if they get caught. Not surprisingly, utilities are finding significant rates of unauthorized attachments on their poles -- 11% on average. Similarly, when utilities have discovered thousands of safety violations by attaching entities, the Commission has invalidated terms and conditions in pole attachment agreements that would have protected utilities from liability. In addition, the Commission openly questioned certain utility engineering standards that were at issue. This contradicts Section 224(f)(2) of the Communications Act, which grants utilities the discretion to apply appropriate safety, reliability, and generally applicable engineering

standards with regard to pole attachments.

While UTC and EEI recognize the Commission's role in promoting communications services, that cannot be the only criterion in this area. The very safety of the power infrastructure on which the entire economy depends – including attachers – is at risk. Matters of electrical engineering are beyond the expertise of the Commission and deference should be made to the expertise of utilities and state and local regulations on these matters. Moreover, this overreaching has sent the wrong message to attaching entities again, and utilities are finding significant rates of code violations from pole attachments – 13% on average. Therefore, the Commission should support the enforcement of the terms and conditions of mutually negotiated pole attachment agreements and it should defer to the expertise of electric utilities in applying engineering standards to pole attachments, as more fully described in UTC's and EEI's comments in the pole attachment rulemaking.

C. Rejecting Proposals for Mandatory Deadlines for Make Ready and Permits

Most recently, certain broadband and wireless groups and competitive telecommunications service providers have filed proposals in the FCC's pole attachment rulemaking that demand additional regulations with regard to deadlines for make-ready and the issuance of permits. They alternatively claim that such regulations are necessary because utilities lack incentives to conduct make ready in a timely manner and that the Commission's complaint process does not adequately deter utilities from dilatory behavior. Both claims are utterly without merit.

Utilities have every incentive to complete make ready, because it is in their interests to ensure that pole attachments are made safely. That is what make ready is

all about – reinforcing poles or changing them out in order to accommodate pole attachments so that they can be made safely in compliance with engineering codes. It also requires an engineering study, an estimate and approval of the costs, coordination with existing attaching entities on the pole as well as utility line crews or contractors, and any necessary approvals from state and local officials before work can begin. It is a complex process that will vary in the amount of time required, depending on the scale of the project proposed, the type of attachment involved, and other environmental and geographic conditions. UTC and EEI oppose the proposals for mandatory deadlines, because these proposals ignore these factors and would force utilities to meet arbitrary deadlines that would not be appropriate in all cases. The fact that some states have adopted deadlines or that some utilities have met these timetables proves nothing about whether the Commission could or should impose such requirements.[27] Such requirements would severely compromise the safety and integrity of the nation's critical power infrastructure, which benefits no one.

The Commission's existing pole attachment regulations already address the terms and conditions for access, including make ready. They rely on guidelines and rules of general applicability, which recognize that there are far too many factors involved for the Commission to impose detailed requirements for pole attachments. These rules and guidelines form the basis for the Commission to review the terms and conditions of access for pole attachments in a complaint proceeding – where both sides can present the facts and the surrounding circumstances. The prospect of a pole attachment complaint proceeding effectively deters utilities from delaying make ready.

[27] It is important to note that those states that have adopted deadlines for make ready have only applied them to linear attachments – not wireless attachments.

Despite the availability of this remedy, UTC and EEI are unaware of any complaint currently pending before the FCC that involves make ready. Moreover, there is no evidence that there are widespread delays associated with make ready that would require the FCC to impose a mandatory deadline, regardless of the circumstances. To the extent that there are delays, they can and should be effectively addressed by the Commission on a case-by-case basis in a complaint proceeding rather than through arbitrary deadlines established by rule.

CONCLUSION

WHEREFORE, the premises considered, UTC and EEI respectfully request that the Commission act as requested herein. Specifically, the Commission should support the allocation of at least 30 MHz of spectrum for critical infrastructure industries, which will advance the national policy interest in the promotion of smart grid, as well as the safety, reliability and security of the nation's critical infrastructure. In addition, the Commission should adopt pole attachment reforms that promote broadband deployment by encouraging partnerships between electric utilities and attaching entities that promote investment in, rather than extraction of value from poles, ducts, conduit and rights-of-way.

Respectfully submitted,

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