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June 25, 2010

Ms. Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street, S.W.
Washington, DC 20554

Re: Notice of Inquiry, In the Matter of Effects on Broadband
Communications Networks Of Damage to or Failure of Network
Equipment Or Severe Overload. PS Docket No. 10-92

Dear Ms. Dortch:

Enclosed on behalf of the Electric Edison Institute ("EEI") are initial comments in the above-referenced proceeding.

The comments are being filed electronically using the Commission's Electronic Comment Filing System ("ECFS") for inclusion in the record of the above-referenced proceeding.

Respectfully submitted,

STINSON MORRISON HECKER LLP



Jonathan P. Trotta
Counsel to Electric Edison Institute

KANSAS CITY
OVERLAND PARK
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WASHINGTON, D.C.
PHOENIX
ST. LOUIS
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JPT:SMH

Attachment

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

In the Matter of)	PS Docket No. 10-92
)	
Effects on Broadband Communications)	
Networks Of Damage to or Failure of)	
Network Equipment Or Severe Overload)	

COMMENTS OF THE EDISON ELECTRIC INSTITUTE

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COMMENTS OF THE EDISON ELECTRIC INSTITUTE

The Edison Electric Institute ("EEI"), on behalf of its member companies, hereby submits the following comments in response to the request by the Federal Communications Commission ("FCC" or "Commission") for comments on the state of survivability in broadband communications networks and potential measures to reduce network vulnerability to failures in network equipment or severe overload conditions.¹

EEI is an 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 interests of its members.

EEI's members may be directly and indirectly affected by the instant proceeding, as users of broadband communications networks and services. The primary interest of

¹ See NBP Notice of Inquiry, In the Matter of Effects on Broadband Communications Networks Of Damage to or Failure of Network Equipment Or Severe Overload, PS Docket No. 10-92 (April 21, 2010) ("Notice").

EI's members in this proceeding is the advancement of policies that promote survivability and availability of broadband networks and services for communications to support the safe, reliable and efficient delivery of essential utility services to the public at large.

COMMENTS

In order to provide safe, reliable electric service, utilities must have communications systems that are robust and reliable. Reliable communications networks are essential to utility operations, and demands on utility communications systems will be greater with the deployment of Smart Grid technologies and other broadband applications along with the implementation of reliability, cyber security, and other critical infrastructure protection standards. Accordingly, the Commission, in considering the actions it should take to enhance the survivability of our nation's critical broadband infrastructure, should take into account the needs of electric utilities as set forth below.

A. Reliable and Cost-Effective Communications

Electric utilities have a mandate to serve the public interest similar to that traditionally imposed on common carriers under the Communications Act. These companies provide critical utility services which are relied upon by most, if not all, of this country's residential and business consumers. Not only must electric utilities be prepared to provide service in normal times, in times of disaster these companies must be able to either maintain or quickly restore critical services. Moreover, the national interest requires that their networks must remain protected and secure. Electric utilities are among this nation's largest users of communications services. These companies rely on both commercial and private communications systems for the safe and reliable delivery

of power to consumers at reasonable costs. Electric utilities have extensive wireline and wireless communications requirements to support maintenance, remote control and monitoring, dispatch of field crews in service territories, and communication with customer meters. Utilities rely on different applications and services to support their critical operational needs. For example, utilities rely on private land mobile radio systems for crew communications, supervisory control and data acquisition ("SCADA") systems, and other applications necessary for the safe, reliable and efficient delivery of electricity. In order to meet public safety needs, systems relied on by utilities must provide sufficient coverage and capacity in any condition, particularly after severe weather events when other forms of communications are disrupted.

In addition, the communications systems which they use must also comply with rigorous mandatory and enforceable Reliability Standards adopted by the Federal Energy Regulatory Commission ("FERC") and the North American Electric Reliability Corporation ("NERC"). Compliance with these standards requires utilities to have reliable, secure communications systems capable of handling large amounts of data and traffic with an extremely low level of latency that only broadband can provide. Other broadband applications that utilities need for their own internal uses include mapping for remote locations and for pinpointing outages or other problems, the ability to transmit schematics, blueprints and other necessary data to field crews, as well as video surveillance to prevent copper theft and to provide overall security throughout the grid. Utilities also rely on broadband networks for internal communications between offices to improve operational efficiency and to quickly and effectively respond to weather events.

Communications will also be vital as utilities come to manage data from large numbers of distributed generation energy resources and automation devices across the grid.

B. Need for Suitable Private and Commercial Communications Networks

EEl believes that multiple options should continue to be available to meet the broadband communications needs of electric utilities, which include both licensed and unlicensed private wireless, as well as commercial solutions. While utilities typically use commercial services for their secondary communications needs, these commercial networks are not designed to provide levels of reliability, survivability and coverage necessary to meet all utility communications needs, particularly in times of emergency. Notably, both wireline and wireless networks may become overloaded or unavailable during and in the aftermath of emergencies and natural disasters. Utilities and critical infrastructure industries (CII) need reliable communications systems, and most commercial systems are not designed to withstand major weather events and may not have the battery back-up needed to communicate in areas where power has been knocked out.

Connecting an electric utility to a public carrier shared with public subscribers raises significant concerns about lack of control and potential security vulnerabilities. Further, in many instances commercial networks do not prioritize data traffic, which is a requirement for many utility use cases. Notably, while wireline networks may prioritize data traffic, wireless networks do not offer similar capabilities. Utilities will also need assurance of reliability and quality of communications services, which carriers are typically reluctant to guarantee. Electric utilities are held accountable by their state regulators for loss of power events and as a result it is not uncommon for an electric

utility to have a 99.99% or greater percent of reliability. Communication service providers are not held to the same level of accountability. Further, utilities have great concerns with the ability of commercial carriers to restore communications after major events. Communication service providers often rely on electric utility infrastructure to co-locate their facilities and often are unable to rebuild their facilities until after the electric utility has repaired the infrastructure. In addition to operating safely and reliably, utilities require priority restoration of their communication networks, which they often do not receive from commercial carriers. While wireline networks may provide priority restoration, wireless networks do not. Some utilities may therefore prefer to rely on their own crews to restore private communications systems expeditiously. Because commercial systems generally do not meet the reliability and security standards of utilities, private internal broadband networks will be essential in some areas.

C. Need for Sufficient Spectrum

Electric utilities already face significant spectrum constraints even as their need for spectrum is increasing, and therefore need dedicated licensed spectrum for existing and future uses. This spectrum is needed to support the growing voice and data needs for existing SCADA voice dispatch, and mobile data applications for utility field workforce. It is also needed to support new and expanding Smart Grid data needs. An efficient grid requires utilities to have private internal communication systems and spectrum capacity to support broadband communications infrastructure necessary for safe and reliable operations. If suitable networks and spectrum is not available for utility Smart Grid wireless communications, the goals of Smart Grid may fall short.

To ensure that utility communications systems are capable of reliably covering the entire grid, the Commission should allocate at least 30 MHz of licensed spectrum below 2 GHz to utilities and CII, and should protect existing bands used by CII from further degradation. Specifically, the Commission should allocate the 1800-1830 MHz band for utility and CII operations, as this band is currently allocated for federal government use and could be made available for CII purposes in coordination with Federal agencies and energy regulators. This band has been allocated in Canada to support the operations and maintenance of electric supply and EEI supports harmonizing use of this band with Canada, which shares an electric grid with the United States.

EEI emphasizes, however, that spectrum, licensed or unlicensed, must allow flexible use to permit CII to select appropriate bandwidths for certain CII applications. In certain instances, unlicensed spectrum may be used in a robust, reliable and secure manner. Thus all current systems, as well as systems under development, that fully comply with FCC requirements must be allowed. Given utilities' reliability needs and cost constraints of rate-regulated utilities, EEI does not believe that unlicensed operations, commercial spectrum auctions,² or leases are capable of solely fulfilling the needs of the electric industry.

² Congress and the FCC have agreed that CII should have access to spectrum without participation in an auction, although this promise has never been fulfilled. 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 the Utilities Telecom Council that CII provide public safety radio service).

CONCLUSION

WHEREFORE, for the foregoing reasons, EEI respectfully requests that the Commission consider these comments and ensure that Commission action ordered regarding survivability in broadband communications networks is consistent with them.

Respectfully submitted,

EDISON ELECTRIC INSTITUTE

/s/ David K. Owens

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