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July 30, 2015

Ms. Marlene H. Dortch  
Secretary  
Federal Communications Commission  
445 - 12<sup>th</sup> Street, S.W.  
Washington, D.C. 20554

Re: Notice of Ex Parte Presentation, GN Docket No. 13-5

Dear Ms. Dortch:

The Utilities Telecom Council ("UTC") is providing the following ex parte notification in the above-referenced proceeding on behalf of itself and the Edison Electric Institute ("EEI"). On July 27, 2015, the undersigned representative and Eric Wagner from UTC along with Brad Nixon from EEI and Russell Frisby from Stinson Leonard Street LLP (representing EEI) met with Nicholas Degani, Legal Advisor to Commissioner Pai.

The purpose of the meeting was to discuss the concerns that utilities and other Critical Infrastructure Industries ("CII") entities have in connection with the Commission's IP-Transition proceeding. The representatives from EEI and UTC explained that utilities are being significantly impacted by the IP-transition, both in terms of the technology migration and the discontinuance of service that has followed as carriers migrate off their legacy networks.

The IP-transition can impact utilities and other CII entities' operational safety and reliability. If the new IP service does not meet utility functional requirements, it may prevent these companies from being able to adequately monitor and control substations and other critical facilities. If the service is discontinued entirely, they may lack communications connectivity to critical infrastructure facilities. The consequences of inadequate or inoperable communications would create vulnerabilities that threaten safety and reliability.

In light of the above-referenced concerns, EEI and UTC's representatives urged the Commission to require that carriers give CII entities at least one year's notice of pending copper retirements and that the Commission also require those carriers to coordinate the proposed retirement with affected CII entities so as to avoid the disruption of critical services. They noted that the required network and equipment re-engineering could be very time-consuming for utilities and pointed out that in a typical electric utility anywhere from several individual to several thousand substations and thousands of voice circuits could be involved.

With regard to Section 214 discontinuances, the representatives urged the Commission to require that carriers affirmatively notify affected CII entities of pending Section 214 requests. They noted that in at least one instance a utility was unaware of the pending service discontinuance until the very last minute when it faced the imminent threat of the loss of critical communications services.

The representatives of EEI and UTC also urged the Commission to ensure that CII entities have access to reasonable substitutes for the services that they currently receive from carriers—both in terms of cost and functionality. They went on to note that the solutions offered by the carriers tended to be expensive fiber (if available at all in certain areas), IP circuits over copper, or unproven wireless services. These circuits typically run 4-10 times the cost of existing TDM-based circuits and may not provide the functionality required by the utility. Overall, each utility can expect to spend millions of dollars—much of which has to be recovered through state rate cases. In addition, while the proposed solutions may provide much higher bandwidth than required to support current needs it might not provide adequate circuit performance (extremely low and highly deterministic latency) to support critical protective relay applications.

Finally, the representatives asked the Commission to address the problem of *de facto* retirement. If carriers fail to maintain their copper circuits, utilities may experience poor performance, which could affect the reliability and security of utility infrastructure. In short, *de facto* retirement of carrier services through poor maintenance and support can be just as problematic for utilities, as actual retirement of carrier services.

The substance of the discussions during the meeting was consistent with the comments of EEI and UTC as filed on the record in this proceeding. Attached to this ex parte notice is a copy of materials presented during this meeting. Please direct any questions to the undersigned.

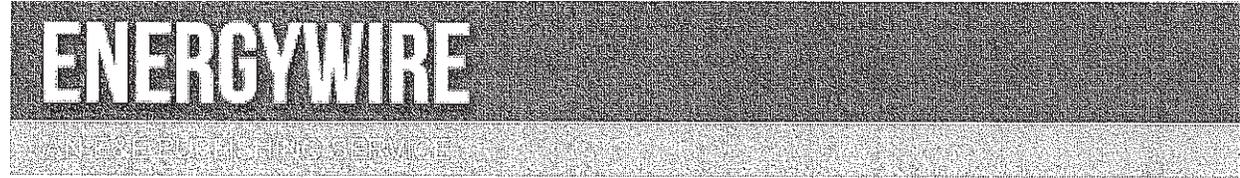
Respectfully submitted,



Michael Oldak  
Vice President Strategic Initiatives &  
General Counsel

cc: Nicholas Degani  
Carol Matthey  
Daniel Kahn  
Adm. David G. Simpson  
David Furth

**Attachment A.**



**TECHNOLOGY:**

**Utilities face a deadline for replacing critical networks**

Peter Behr, E&E reporter

*Published: Thursday, May 7, 2015*

ATLANTA -- A Midwestern utility lost communications with a substation when a telecommunications carrier's line failed, at 6 p.m. on a Friday. If connections couldn't be restored in short order, the utility could be facing \$1 million a day in fines for violating Federal Energy Regulatory Commission rules.

But the telecom company said it no longer offered round-the-clock service. Its service trucks rolled during the day, Monday to Friday, said Dan Belmont, whose Chicago-based firm, West Monroe Partners, had to scramble to create an alternative communications channel for the utility.

And executives of an upstate New York utility were stunned last year to learn that their telephone carrier was about to terminate the phone lines used for their operations -- an earlier warning was misplaced in the mail.

The incidents, related during the Utilities Telecom Council's conference here this week, dramatize a jarring change affecting the communications networks that link most utility substations to control centers.

AT&T, Verizon and other carriers are putting utilities on notice that they are closing down the old, standard telephone services that carried the utilities' operating data.

It is another of the operational challenges landing on the desks of utility CEOs that are the consequence of incessant technological change -- in this case, consumers' embrace of cellphones or phone over Internet rather than "plain old telephone service."

"Those networks are dying," said Belmont, his company's senior director for energy and utility solutions.

Traditional residential phone service has been falling off, and that's the same equipment utilities use, said Mark Madden, regional vice president for North

American utilities at Alcatel-Lucent.

"We're getting to the point where the big telecom carriers are no longer willing to invest in these networks," Madden said. It's not going to happen everywhere, all at once, he added.

"But utilities are going to have to do something, and they don't have much time," Madden said.

Belmont and Madden are two of the principal authors of a white paper on the network transition published by UTC.

"Those old services are going away. No matter how satisfied you are ... they're not going to be there much longer," said Keith Porterfield, vice president for telecommunications for Georgia Systems Operations Corp., grid operator for member-owned utilities in the state.

### **A costly day of reckoning**

Telecom operators have secure options to offer, Belmont said. The banking industry, for example, has invested in secure advanced telecom networks embedded with cybersecurity measures.

But the new options -- dedicated fiber-optic channels, or MPLS (multiprotocol label switching services), for example -- can cost as much as 10 times what the utilities were paying for their communications, Belmont said. That is a tough pill for utilities to swallow, and tough, too, for the regulators who see ratepayers' expenses rising for grid automation, cybersecurity and extreme weather defenses, and new transmission lines.

Utilities had notice that this change was coming, but some put off the reckoning.

"For us, the key driver was a hard date," Porterfield said. AT&T announced that GSOC would lose its frame relay service (so-called because data moves in discrete frames or packages) at the end of December last year. "AT&T drew a line in the sand."

"We got the message and began the transition," he told an audience at the UTC conference. "It's been challenging, but we've made it 95 percent of the way through." GSOC was able to negotiate the per-site transition cost nearly in half, he said. His company's replacement for critical functions was built around a corporate network with zoned firewalls, with maintenance and billing in different zones. "We are not on any publicly accessible IP space."

Cheaper options, including cellular communications channels, aren't acceptable to utilities from a reliability standpoint, Porterfield said.

"It was not just a ROI [return on investment] calculation," he said. "We were also looking at the future." The new system allows enhanced security and provides lower maintenance costs.

Utilities must take into account the data requirements of their equipment, Madden said.

An example is a high-voltage circuit breaker programmed to respond to queries about the status of the line within 10 to 12 milliseconds, or the controls will assume there is a fault and the breaker will trip, shutting down that section of the line, he said.

Some of the new connections telecom companies are offering utilities may not be able to handle traffic that quickly, and a false distress signal could occur. "If the communications fail, you could be back in a situation like 2003," he said, referring to the Northeast blackout that year, caused by a series of line outages that ended in a cascading failure.

"Utilities have been relying on security by obscurity" for a long time, he said, meaning that their older, unique software controls didn't draw hackers' interest. That goes away, too, if utilities wind up on state-of-the-art networks.

"In IP [Internet protocol] networks, the vulnerabilities are well-known and there are many more attack surfaces, but there are also a lot of defenses," he said.

"Utilities have to make the decision, 'Do I do it myself' or buy a new service from a utility, Madden said. "Replacing the service is not trivial," he said.

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