

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

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

REPLY COMMENTS OF THE UTILITIES TELECOM COUNCIL

Pursuant to Section 1.405 of the Commission’s Rules, UTC hereby files its reply comments in response to the Commission’s *Notice of Inquiry* in the above-referenced matter.¹ UTC is compelled to file these reply comments in response to comments by AT&T, which claim that commercial broadband networks can support utility communications needs and that therefore the Commission should not provide utilities access to *any* spectrum for their private internal communications networks that are used to support smart grid and other applications, such as emergency response communications. While commercial carriers may be able to meet some utility communications needs, most utilities will rely on private internal communications networks to support mission-critical applications that protect the safety, reliability and security of the nation’s electric grid and other critical infrastructure industries. Moreover, access to spectrum will be critical for the cost effective and timely deployment of smart grid systems, and should be provided, notwithstanding carrier claims of reliability. As even AT&T concedes, “the use of commercial communications networks need not be to the exclusion of utility-owned assets. Utilities with existing communications systems can utilize commercial communications networks and managed services offered by commercial communications operators to augment the capabilities of their existing systems.”²

¹ *Effects on Broadband Communications Networks Of Damage to or Failure of Network Equipment Or Severe Overload*, Notice of Inquiry, PS Docket No. 10-92, 75 Fed. Reg. 26180 (May 11, 2010)(“*NOI*”).

² Reply Comments of AT&T at 17, n. 53.

While AT&T makes general claims regarding the reliability of its services, it offers little actual evidence to support its claims. It only can cite to one trial deployment with utilities, and it should be noted that this is for smart metering. In desperation, AT&T cites to other smart meter deployments with local government and agreements with a couple of meter and grid monitor/sensor manufacturers. These targeted smart meter deployments are distinctly different in scale and scope from deploying smart grid over an entire utility network. Moreover, a few agreements with utility equipment manufacturers do not prove actual reliability and performance in the field.

Similarly, AT&T's claims of battery back-up do not stand up to scrutiny. While it claims that 99 percent of its wireless sites are engineered with back-up power, it doesn't state how long this back up power will last. As Sensus explained in its comments, the effective duration of battery back-up on commercial wireless systems is greatly reduced during power outage events, because "during such events, calling patterns increase significantly past designed "normal" calling patterns."³ In addition, "[e]ven when power is restored, there is a recovery period while the telecommunication site's power systems are regenerated."⁴ While AT&T does report that its switching centers are typically equipped with generator back up power with enough fuel for four days run time, the FCC should not lose sight of the fact that this is only for switching centers, not cell sites. There are many more cell sites than switching centers and commercial carriers may not be able to justify the cost of providing sufficient back up power to all of them, particularly when their systems must only meet "best efforts" standards for reliability. For utilities, sufficient back-up power is essential, and the National Security Telecommunications Advisory Committee (NSTAC) recognized this when it stated that, "[t]hese backup capabilities, which are not economical or feasible for commercial networks, are required by utilities to ensure reliable communications in an emergency."⁵

³ Comments of Sensus USA, Inc. at 3.

⁴ *Id.*

⁵ NSTAC Report to the President on Telecommunications and Electric Power Interdependencies: People

AT&T also claims that utilities might be able to avail themselves of government programs intended to provide priority communications services to activities that support National Security and Emergency Preparedness, such as the Wireless Priority Service (WPS), the Telecommunications Service Priority System (TSP), or the Government Emergency Telecommunications Service (GETS).⁶ However, even if all the communications services on which utilities rely would qualify for these programs, they are not a substitute for a private internal network. Moreover, these services are only as good as the networks on which they are provided. If the networks are down, a user of WPS or GETS does not have any service, let alone a priority. TSP can be of some benefit in securing priority for restoration of service, but it is still more akin to a “best efforts” prioritization and not a guarantee that any particular circuit will be restored ahead of others or within a certain timeframe. WPS does not offer preemptive service; that is, a WPS user may be pushed to the head of the queue for an available channel, but will not preempt calls that are in progress. WPS and GETS only provide priority for outbound calls from the user’s wireless device to the network; inbound calls to the wireless device do not receive any special treatment. WPS and GETS only apply to voice calls, do not provide any priority to text or data traffic, and will not be supported if the user is roaming on another carrier’s network that does not support these features. Thus, although these services have some benefit, they are lacking in most of the key attributes that are needed to support mission-critical communications and are therefore not a substitute for a private communications system.

Ultimately, AT&T implicitly concedes that electric utilities would need to contract for “enhanced levels of service” such as expanded coverage or enhanced network performance. For utilities there is both a cost issue and a liability issue involved here. It may be dramatically more expensive to expand coverage of a commercial system, than it would to expand the coverage of a private internal system. Moreover, there is nothing to suggest that carriers would expand into these areas, based on their

and Processes: Current State of Telecommunications and Electric Power Interdependencies, January 31, 2006, at 3-1 and 3.2. The Report is reprinted in the following compilation of NSTAC reports: http://www.ncs.gov/nstac/reports/2006/NSTAC_XXIX_Reports_082206.pdf.

⁶ AT&T Comments at 16; AT&T Reply Comments at 19-20.

commercial service business alone; and it is likely that utilities would bear all of these costs and there would be very few if any synergies that might otherwise go along with utilizing a carrier network. In fact, one utility did actually compare the cost of a “buy” versus “build” scenario and concluded that it would actually be more expensive to buy services from a commercial carrier over a ten-year period.⁷ Moreover, any service level agreement in the contract would offer utilities very little reassurance in *Force Majeure* situations, when utilities need them the most. In addition, carrier contracts typically only offer refunds for failure to meet SLAs; they wouldn’t cover the damages resulting from an outage.

AT&T opposes access to spectrum based on general policy arguments that do not address the real concerns that utilities have with using commercial networks for utility communications. While it is true that utilities will use commercial systems for some smart grid applications, such as AMI, utilities need private internal communications networks for mission critical applications. And spectrum is necessary to build out and upgrade those networks to support smart grid on a cost effective and timely basis. As smart grid is important to several overarching national policy goals, including energy independence, environmental quality and national security; it is clearly appropriate to ensure that utilities have access to suitable spectrum to support the reliability of the communications systems that support smart grid. As such, UTC urges the Commission to support access to spectrum for smart grid and other utility communications.

⁷ See Comments of Southern Company Services in response to the Department of Energy’s Request for Information on the Communications Needs of Utilities at 11-12 (filed Aug. 9, 2010) at http://www.gc.energy.gov/documents/SouthernCompany_Comments_CommsReqs.pdf.

WHEREFORE, the premises considered, UTC thanks the Commission for considering its reply comments and it urges the Commission to promote access to spectrum to support smart grid and other utility communications needs.

Respectfully submitted,

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