

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

In the Matter of	)	
	)	
Technology Transitions	)	GN Docket No. 13-5
	)	
Policies and Rules Governing Retirement Of Copper Loops by Incumbent Local Exchange Carriers	)	RM-11358
	)	
Special Access for Price Cap Local Exchange Carriers	)	WC Docket No. 05-25
	)	
AT&T Corporation Petition for Rulemaking to Reform Regulation of Incumbent Local Exchange Carrier Rates for Interstate Special Access Services	)	RM-10593

**COMMENTS OF THE UTILITIES TELECOM COUNCIL**

Pursuant to Section 1.405 of the Commission’s Rules, the Utilities Telecom Council (“UTC”) hereby files its comments in response to the Commission’s *Further Notice of Proposed Rulemaking* in the above-referenced proceeding.<sup>1</sup> As more fully described below, UTC supports the Commission’s tentative conclusions regarding its proposed criteria for it to consider in determining whether to authorize carriers to discontinue a legacy retail service in favor of a retail service based on a newer technology.<sup>2</sup> In addition, UTC supports other criteria – such as operability, transmission capacity, affordability, and connection persistence -- that the Commission should adopt to better protect consumers against the impact of the IP Transition.<sup>3</sup>

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<sup>1</sup> *Technology Transitions et al.*, GN Docket No. 13-5 et al., Report and Order, Order on Reconsideration, and Further Notice of Proposed, FCC 15-97 (rel. Aug. 7, 2015)(hereinafter “Report and Order” or “FNPRM”).

<sup>2</sup> See FNPRM at ¶207 (stating that “we tentatively conclude that several of the criteria proposed by Public Knowledge ... are the appropriate criteria for the Commission to consider in determining whether to authorize carriers to discontinue a legacy retail service in favor of a retail service based on a newer technology.”)

<sup>3</sup> See FNPRM at ¶234 (stating that “[b]ased on the record received to date, we tentatively conclude that we

The Commission is right to seek the perspective of commercial stakeholders, such as utilities and other critical infrastructure industries (CII), because their concerns are not necessarily identical to those of residential customers.<sup>4</sup> They have heightened requirements for latency and reliability, and they are also concerned about data communications as well as voice in order to maintain operational safety, security and integrity. Moreover, they have many more connections – including many in remote areas – such that planning for the IP-Transition is a much more difficult task and there may be fewer alternative services for them to use.

Accordingly, utilities and other critical infrastructure industries represent a large and important class of commercial stakeholders who need more time to plan for the IP Transition and have special requirements for adequate substitute services. In addition, the essential energy and water services that they provide and which are potentially threatened by the IP Transition affect the country as a whole. As such, UTC thanks the Commission for this opportunity to address the unique concerns of utilities and other CII about the impact of the IP Transition, and it urges the Commission to adopt criteria that will help to protect them as well as residential consumers during the IP Transition.

## **I. Introduction**

UTC is the international trade association for the telecom and information technology needs of electric, gas and water utilities, pipeline companies and other CII. Its members include large investor-owned utilities that serve millions of customers across multi-state service

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should not adopt the following proposals by commenters to include the following criteria in the section 214 process” including operability during emergencies, including power outages, adequate transmission capacity affordability and connection persistence.)

<sup>4</sup> See FNPRM at ¶208 (recognizing that “the perspective of commercial stakeholders, including enterprise end users, is vitally important,” and “therefore seek[ing] comment from these stakeholders regarding how and to what extent the proposed criteria inform their decision-making process,” including whether their service concerns are identical to residential consumers.”)

territories, municipal utilities that serve both large cities like Los Angeles and small towns across the country, and cooperative utilities that serve large parts of rural America. UTC's members have extensive private internal communications networks that they use to support the safe, reliable and secure delivery of essential electric, gas and water services to the public at large.

At the same time, UTC's members use wireline and wireless services from commercial carriers to provide voice and data communications to substations and other critical assets, as well as personnel in the field. These wireline services include DS0, DS1 and frame relay services over copper networks, which are now being phased out as part of the IP Transition. For decades, utilities have leased lines from the commercial carriers to provide a cost-effective communications solution to remote locations. These circuits are uniquely capable of supporting the kind of low latency service that is necessary to provide instantaneous communications for applications that protect the grid from faults that can cause blackouts, as well as other monitoring and control functions.

Some utilities have hundreds of these circuits and when they are retired by the carriers, utilities must find an alternative solution to provide communications that is reliable and secure and which meets the utility's standards for protective relaying and substation control. Given the sheer number of circuits involved and the complexity of the issues raised by the IP Transition as it impacts the reliability, safety and security of utilities and CII, UTC is pleased to provide the following comments in response to the Commission's FNPRM.

**II. The Commission Should Adopt Criteria for Adequate Substitutes That Ensure Capacity and Reliability, As Well As Quality of Service and Security for Utility and CII Communications.**

Owing to the critical nature of the underlying utility services that carrier circuits support, UTC urges the Commission to adopt criteria that would provide adequate substitutes for legacy

services that are to be discontinued, reduced, or impaired.<sup>5</sup> UTC applauds the Commission for recognizing that reliability and capacity are at the heart of the issue and for proposing criteria that would require that replacement or alternative services provide the same or greater capacity as the existing service, as well as that these replacement or alternative services afford the same reliability as existing services even when a large number of calls are initiated simultaneously.<sup>6</sup>

Moreover, measuring reliability based on latency, jitter and packet loss is a particularly important approach for utilities and CII, who require low latency for their mission critical applications that protect against faults that can threaten their operations and safety.<sup>7</sup> The need for low latency communications will be even greater as utilities integrate phasor measurement units (PMUs) and synchrophasors that will measure electricity flows on the grid a rate of 30 to 120 data points a second, significantly faster and at a higher resolution than existing technologies.<sup>8</sup> This is one example why UTC supports criteria that promote communications reliability as measured in quantifiable terms of latency, jitter and packet loss.

### **III. The Commission Should Require Carriers to Provide Sufficient Notice to Utilities and CII Regarding Copper Retirement.**

UTC also reiterates that utilities and other CII need more time to plan as carriers continue to transition towards IP-based services and they phase out their legacy circuit-switched copper networks.<sup>9</sup> While the Commission has adopted rules that require incumbent local exchange

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<sup>5</sup> FNPRM at ¶202.

<sup>6</sup> FNPRM at ¶216.

<sup>7</sup> FNPRM at ¶217.

<sup>8</sup> See Quadrennial Technology Review 2015 Measurements, Communications, and Controls, Chapter 3: Technology Assessments at 4, at <http://www.energy.gov/sites/prod/files/2015/09/f26/QTR2015-3E-Measurements-Communications-and-Controls.pdf>, visited Oct. 25, 2015.

<sup>9</sup> See Comments of the Utilities Telecom Council in PS Docket No. 14-174 at 8-9 (filed Feb. 5, 2015)(hereinafter Comments of the Utilities Telecom Council).

carriers to provide 180 days advance notice for non-residential customers prior to the planned implementation date of a planned copper retirement; more time is needed for utilities and CII to be able to adequately plan for the transition of potentially hundreds of circuits, especially in remote areas where there are no reasonable alternatives.<sup>10</sup> UTC reiterates that utilities need at least one year advance notice prior to the discontinuance of an existing service as part of the IP transition, considering the vast number of circuits that can be involved and the complexity of finding adequate substitute services, particularly in rural areas.<sup>11</sup>

**IV. The Commission Should Help to Coordinate the Process as Different Carriers Transition to IP-based Services.**

To be clear, utilities are not opposed to the IP Transition; they just need to be able to plan ahead for it. For example, a single circuit to a utility substation may extend for miles and include multiple carriers. It's impossible to plan against the IP Transition, if there is no coordination of the transition by different carriers supporting that circuit. Different carriers may transition to IP at different times, making it difficult for the utility to ensure that the circuit continues to meet its performance requirements. Some coordination of the IP Transition should be conducted, and the Commission is well-positioned to do that, particularly because these circuits may run across state lines. This is just one more way in which utilities and CII are uniquely affected by the IP Transition, and underscores the need to provide utilities and CII more time to find adequate substitutes for the replacement of existing carrier services.

**V. The Commission Should Adopt Additional Criteria that Address Issues that Uniquely Affect Utilities and Other CII.**

At the same time that carriers transition from existing analog circuits to IP-based

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<sup>10</sup> Report and Order at ¶¶62, 238.

<sup>11</sup> See Comments of the Utilities Telecom Council at 8-9.

services, utilities are seeing significant price increases for services like frame relay, which utilities use for SCADA and other mission critical utility applications. In that context, the importance of affordability as a criterion is evident. Utilities may be forced to pay exorbitant rate increases for these legacy services in order to continue to support substation monitoring and control or other mission critical utility applications. Alternatively, utilities may be forced to pay for replacement services that are significantly more expensive than the existing services that they have used in the past. Finally, utilities may be forced to pay for services that they don't need, such as higher capacity circuits that wildly exceed the performance requirements for the underlying utility applications that they are used to support. These considerations underscore the need for the Commission to consider adopting affordability as one of the additional criteria that would supplement the technical criteria, such as capacity and reliability, which lie at the core of the Commission's overall approach.

In addition to affordability, the adoption of other criteria such as operability, transmission capacity and connection persistence also would help to supplement the foundational criteria, such as capacity and reliability, which the Commission has tentatively concluded to adopt. For example, utilities require communications to be available during emergencies. While the Commission has addressed back up power issues for residential customers, the Commission could do more to address the need for back-up power and other network hardening measures for non-residential customers, such as utilities and CII.<sup>12</sup> For example, utilities and CII require back up power for more than the 24 hours that the Commission's new rules require. Likewise, the issue of connection persistence may be of more importance to utilities and CII than for

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<sup>12</sup> See *Continuity of Communications Order; Ensuring Continuity of 911 Communications*, PS Docket No. 14-174, Report and Order, FCC 15-98 at ¶36 (adopted Aug. 6, 2015)(finding that “[w]e are not persuaded that a requirement for providers of covered services to offer or install more than 24 hours of backup power is necessary at this time.”)

