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
	)	

OPPOSITION OF ADTRAN, INC.

ADTRAN, Inc. ("ADTRAN") hereby opposes the nominal "Petition for Clarification" of U.S. TelePacific Corp. ("TelePacific")[1] with regard to the Commissions *Technology Transitions Order*.[2] The Commission's *Public Notice* correctly found that TelePacific's petition is seeking reconsideration of the *Technology Transitions Order*, not merely a clarification. But regardless of how it is styled, the Commission should promptly dismiss TelePacific's petition, because it is unsupported, speculative and unnecessary, and the requested relief would impose significant burdens that would needlessly delay deployment of advanced facilities and services.

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[1] *See*, *Public Notice*, Report No. 3035, released December 4, 2015, 80 *Fed. Reg*. 76923, published December 11, 2015 (hereafter cited as "*TelePacific Petition*").

[2] *Technology Transitions; Policies and Rules Governing Retirement of Copper Loops by Incumbent Local Exchange Carriers***,** 30 FCC Rcd 9372 (August 7, 2015) (hereafter cited as "*Technology Transitions Order*").

ADTRAN had previously commented on several issues raised in this proceeding concerning the technology transition from networks based on time-division multiplexed (TDM) circuit-switched voice services running on copper loops to all-Internet Protocol (IP) multi-media networks using copper, co-axial cable, wireless, and fiber as physical infrastructure.[3] In those comments, ADTRAN urged the Commission to take steps to facilitate that transition, while at the same time requiring sensible efforts to minimize any disruption on customers and competition that might otherwise occur. ADTRAN also cautioned the Commission in its earlier comments that it should reject proposals that could have the effect of needlessly deterring or delaying the deployment of next generation network facilities and services.

In its petition, TelePacific seeks to impose additional obligations on an Incumbent Local Exchange Carrier's ("ILEC") retirement of copper. But the premise for the TelePacific petition is unfounded speculation that ignores the reality of the marketplace and the regulatory obligations already imposed by the Commission on the ILECs' retirement of copper and service discontinuance. TelePacific would have the Commission require the ILECs to coordinate copper retirement "in the event that an ILEC's copper loop retirement leads to a CLEC having to discontinue provision of service to a community or part of a community."[4] However, under the procedures already prescribed by the Commission, the ILECs are required to provide six months notice in advance of copper retirement. Along with other obligations prescribed by the Commission, that notice will provide more than sufficient opportunity to ensure that service would not be discontinued to the CLEC's customers.

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[3] *See*, Comments of ADTRAN in GN Docket No. 13-5 filed July 9, 2013; Comments of ADTRAN in GN Docket No. 13-5 filed February 5, 2015.

[4] *TelePacific Petition* at p. 2.

As an initial matter, ADTRAN observes that TelePacific's concern regarding the discontinuance of service fails to take into account that the copper to be retired will be replaced by fiber optic facilities capable of providing even more robust services to those customers. In the example cited by TelePacific of 32 schools served by Ethernet-over-copper, the schools would have a new option of fiber-based broadband. In addition, TelePacific ignores the alternative of its purchasing the copper loops being retired by the ILEC.[5] Moreover, if the ILEC will be discontinuing service (and not just retiring the copper), then the ILEC is required to maintain "reasonably comparable" wholesale access to last-mile services.[6] Thus, the Commission has already imposed obligations on the ILECs to ensure that any service disruption to the CLEC's customers resulting from the copper retirement will be minimized.

In addition, as TelePacific acknowledges, there are alternative technologies capable of providing the "20 Mbps competitive broadband service to its small and medium business, school, health care, and community anchor institution customers."[7] As noted in the Petition:

> TelePacific recognizes that ***theoretically*** there are other transmission technologies that support the provision of broadband to small and medium sized business customers. But it is unlikely that such replacement technologies would be available or if available would be affordable. (emphasis added)[8]

But such alternatives are not just a theoretical possibility – they are real and affordable. As just one example, fixed wireless broadband providers such as FiberTower are ready, willing and able to provide these services. As FiberTower explained in the context of providing broadband services to schools and libraries much more robust than the 20 Mbps competitive broadband

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5 *Technology Transitions Order* at ¶¶ 98-100.

6 *Technology Transitions Order* at ¶¶ 131 -177.

7 *TelePacific Petition* at p. 3.

8 *TelePacific Petition* at p. 5.

service to Telepacific offers to its small and medium business, school, health care, and community anchor institution customers:

> Fortunately, non-fiber-based technologies have advanced to the point at which they can be leveraged to further the objectives of the President's ConnectED initiative. In particular, fixed wireless technologies now exist that can be used to provide affordable broadband connectivity to the majority of the nation's schools and libraries in an efficient and effective manner. FiberTower, with its partners, already has developed and deployed carrier-class transceivers that support 100 Mbps *and* 1 Gbps broadband connectivity. So have others. Moreover, with the developments in wireless backhaul technology over the past decade, wireless speeds, capacity, and reliability have grown exponentially while at the same time the costs associated with these technologies have dropped significantly.
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> The benefits of fixed wireless broadband technologies are numerous. First, fixed wireless solutions can overcome many of the technical obstacles that would frustrate fiber deployment. Because fixed wireless broadband solutions do not require a physical trench or aerial wireline connection between points but merely line-of-sight visibility, fixed wireless infrastructure provides cost-effective broadband connectivity to locations that fiber simply cannot.
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> Second, fixed wireless systems are often more robust than vulnerable landline systems. Hardened fixed wireless systems can be configured to be physically diverse and independently powerable. As a result, these systems do not fail when the electrical grids fail. Additionally, physically diverse backhaul systems typically incorporate facilities located on rooftops and towers, and thus are able to continue to operate where an area is impacted by major flooding or other natural disasters, or in other situations in which fiber would be "cut."
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> Third, fixed wireless deployments often are far less expensive than fiber. Indeed, fixed wireless deployment would cost far less in much of the country, and also could be achieved on a more rapid timetable. The reasons for fixed wireless being less expensive than fiber in many situations include:
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> - Fiber costs increase over distance, whereas many fixed wireless systems that deliver 100 Mbps over 1 mile can use the same system to deliver 100 Mbps over 3miles for exact same cost. In the case of fiber, the cost triples.
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> - Fiber costs increase even over short distances when roads, sidewalks and building foundations need to be penetrated in order to serve building-based customers. Fixed wireless systems skip over the need to crack open roads and sidewalks and building foundation—and navigate past other underground gas, electrical, sewage and water utilities.[9]

[9] FiberTower Comments in WC Docket No. 13-184, filed November 8, 2013 (available at http://apps.fcc.gov/ecfs/comment/view?id=6017476273) at pp. 5-6.

TelePacific thus appears to have proposed a solution in search of a problem, because numerous means – both market-place driven and imposed by the FCC – are already available to ensure that a CLEC's customers will not lose service when an ILEC retires copper.

On the other hand, the Commission acknowledges the benefits to the incumbent carriers and their customers of the next generation networks. Earlier in this proceeding, the Commission made clear its support for encouraging fiber deployment:

> We recognize the many benefits of fiber-based service and the desirability for incumbent LECs of not having to operate both copper and fiber networks indefinitely, including the potential for more bandwidth and increased reliability in difficult weather conditions. … We emphasize that we support and encourage these and other fiber deployments, and are committed to maintaining the incentives for providers to deploy fiber.[10]

Such a Commission policy of encouraging the deployment of fiber-based and other broadband services is certainly not new. Over a decade ago in the *Triennial Review Order*, the Commission emphasized the importance of incentivizing investment for the deployment of new technologies.[11] And more recently in the *National Broadband Plan*, the Commission recognized that requiring incumbent LECs to maintain duplicative networks—one copper and one fiber—"would be costly, possibly inefficient and reduce the incentive for incumbents to deploy fiber facilities."[12] ADTRAN can vouch for the manifold benefits of fiber-based and other broadband

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[10] *Ensuring Customer Premises Equipment Backup Power for Continuity of Communications; Technology Transitions; Policies and Rules Governing Retirement Of Copper Loops by Incumbent Local Exchange Carriers; Special Access for Price Cap Local Exchange Carriers; AT&T Corporation Petition for Rulemaking to Reform Regulation of Incumbent Local Exchange Carrier Rates for Interstate Special Access Services*, 29 FCC Rcd 14968 (November 25, 2014) at ¶ 15.

[11] *Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers*, et al., CC Docket No. 01-338, et al., Report and Order and Order on Remand and Further Notice of Proposed Rulemaking, 18 FCC Rcd 16978, 17111 (2003) ("*Triennial Review Order"*).

[12] Omnibus Broadband Initiative, Connecting America: The National Broadband Plan, GN

services, and has itself launched a gigabit initiative with the goal of having 200 gigabit communities up and running by the end of 2015.[13] Accelerating the deployment of fiber clearly serves the public interest. The Commission should thus reject TelePacific's attempt to place an additional burden on the ILECs' replacement of copper with fiber facilities, which will needlessly retard the deployment of fiber.

Respectfully submitted,
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Docket No. 09-51, at p. 48 (2010) (hereafter cited as "*National Broadband Plan"*).

13 *See*, *Light Reading*, August 13, 2014, "Adtran Launches 'Gig Communities' Initiative," available at http://www.lightreading.com/broadband/fttx/adtran-launches-gig-communities-initiative/d/d-id/710330. *See also*, http://gigcommunities.net/.