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February 19, 2016

Via ECFS

Marlene Dortch, Secretary
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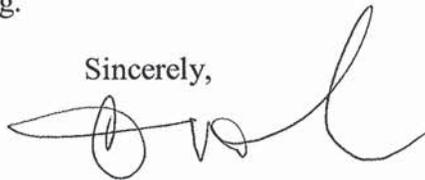
*Re: Special Access for Price Cap Local Exchange Carriers, WC Docket No. 05-25;
AT&T Corporation Petition for Rulemaking To Reform Regulation of Incumbent
Local Exchange Carrier Rates for Interstate Special Access Services, RM-10593*

Dear Ms. Dortch:

Attached is the Redacted version of the Reply Comments of Verizon in the above-captioned matters. Verizon is filing the Highly Confidential version of these Reply Comments under separate cover.

Thank you for your assistance in this matter. Please contact me at (202) 326-7930 if you have any questions regarding this filing.

Sincerely,

A handwritten signature in black ink, appearing to read "Evan T. Leo". The signature is fluid and cursive, with a large initial "E" and "L".

Evan T. Leo

Attachment

REDACTED – FOR PUBLIC INSPECTION

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554**

In the Matter of

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

WC Docket No. 05-25

RM-10593

REPLY COMMENTS OF VERIZON

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RM-10593

REPLY COMMENTS OF VERIZON¹

Where there is concentrated demand for business broadband services, there is competition. Customer demand for business broadband services is rapidly shifting away from legacy services and off of legacy technologies. The record shows all kinds of providers — and especially cable companies — competing to provide business broadband services to meet that demand. If the Commission analyzes the business broadband marketplace as it must — using a forward-looking analysis that begins with current data and accounts for these dynamic trends — it will find no basis to single out incumbent LECs for special regulation. Instead, the Commission should rely on competition wherever possible to protect consumers, and in those areas where competition may not be sufficient, the Commission should regulate evenhandedly.

Even based on the outdated and incomplete record here, the evidence of competition where there is concentrated demand includes steadily declining retail prices; mass migration from legacy technologies (TDM) to new ones (Ethernet and broadband IP) that offer greater

¹ The Verizon companies participating in this filing are the regulated, wholly owned subsidiaries of Verizon Communications Inc. (collectively, “Verizon”).

quality and value; disruptive facilities-based entry by cable companies; growing use of alternative technologies such as best-efforts broadband and fixed wireless; the continued growth of traditional CLECs; and the indisputable competitiveness of downstream markets, such as wireless, in which providers use business broadband services as an input.

Competition is particularly intense for Ethernet services, where cable operators have focused their efforts with considerable success. Cable companies that spent the last several years focusing on smaller and medium-sized business customers have recently turned their attention to larger enterprise customers, and they have already demonstrated their ability to thrive here as well. Just a few weeks ago, for example, Comcast announced that its new enterprise division “is gaining traction with more than 20 large enterprise customers and multiple eight-figure deals already signed.” Time Warner Cable announced in the past few weeks that during 2015, “66,000 commercial buildings [were] added to [its] network,” giving it access to “an estimated \$975 million in serviceable annual opportunity.”

Although some CLECs and a few other parties seek extensive regulation of ILEC special access services, hundreds of competitive suppliers and purchasers of high-capacity services filed data with the Commission, and most of these parties decided not to file comments. Not a single cable company or fixed wireless provider has filed comments, which is unsurprising given that these companies are competing successfully over their own facilities without ILEC special access. Except for Sprint, no purchaser of wireless backhaul has filed comments. As T-Mobile has explained, it has no need to participate in this proceeding because it upgraded its backhaul network years ago with competitive suppliers and new technology. Nor has any end-user customer of high-capacity services — a business large or small — filed comments complaining about prices, the inability to obtain service, or any other issue suggesting a lack of competition.

The main commenters are instead companies who have chosen to lease facilities instead of building them. They want lower wholesale prices and regulations of the terms on which incumbent telephone companies provide these wholesale services. But the focus under the Act is on competition, not providing regulatory preferences to individual competitors and their particular business models. These same companies often have fiber networks in the areas where there is concentrated demand for business broadband services. But instead of investing to connect those networks to business customers like the cable companies and incumbent telephone companies have, they want to continue relying on regulated access to ILEC facilities — and only ILEC facilities — as heavily and as cheaply as they can.

To advance their regulatory goals, these companies suggest that the Commission apply an analytical framework that, by design, all but presumes market power. In applying that framework, they argue for defining geographic and product markets so narrowly that, if adopted, would result in literally millions of individual “markets” nationwide. Further, within these narrowly defined markets, they would have the Commission ignore actual competition from cable companies’ Ethernet and best-efforts broadband services, as well as actual competition from fixed wireless providers. And they would have the Commission ignore potential competition from cable, CLECs, and other alternatives in the marketplace. These commenters’ conclusion that incumbent LECs have market power is the inevitable outcome of their jury-rigged analysis, which the Commission should reject at each level.

The commenters’ claims regarding competition for business broadband services also run contrary to these same parties’ statements to customers, investors, and the public. Here, these commenters argue that the Commission should ignore cable, fixed wireless, and the competitors’ ability to extend their networks. In the marketplace, however, these same commenters declare

all of these sources of competition to be a legitimate threat, and they concede they have forced price reductions to retail customers. Here, the commenters urge the Commission to analyze competition at a building level and to ignore any provider without existing facilities at each building. In the marketplace, however, these competitors admit they do not look at opportunities on a building-by-building basis, but instead consider the broader revenues available within areas of concentrated demand.

I. A Market-Share Driven Framework Is Inappropriate for the Dynamic Business Broadband Marketplace

There is no factual basis to support a finding of market power or market failure in the business broadband marketplace. The Commission should instead grant relief in areas where demand for business broadband services is concentrated. For those areas where demand is not concentrated and where competition — both actual and potential — cannot adequately protect consumers, the Commission may consider whether it should apply an appropriate level of regulation even-handedly.

The Commission should start by conducting a forward-looking analysis that accounts for how the shift to new technologies and burgeoning demand expand the potential for competition for business broadband services going forward. This analytical approach is warranted given this marketplace's significant and rapid transformation. In particular, cable has changed the game. Cable operators provide best-efforts broadband services that many business customers choose for their data needs. Cable operators also have become major providers of dedicated Ethernet services. The enterprise-focused units of the largest cable operators — Time Warner Cable, Comcast, and Cox — have in just a few years become the fifth, sixth, and eighth largest

providers of Ethernet services in the United States, respectively.² Analyst IDC observes that cable companies are now “a disruptive wild card that may choose to bring enormous pressure on pricing in order to realize quick market share gains.”³ And cable companies themselves state that they have begun competing aggressively for Ethernet services and plan to ramp up these efforts even further going forward.⁴

A market-share-driven framework is inappropriate for analyzing competition in a dynamic marketplace like this one, marked by significant and rapid change. That type of analytical framework has fallen increasingly out of favor in the antitrust context even in cases where more static markets are at issue.⁵ And it is even more ill-suited to the task of assessing market power in marketplaces that are evolving.⁶ The Commission must instead conduct a

² See, e.g., Vertical Systems Group, *Mid-Year 2015 U.S. Carrier Ethernet LEADERBOARD* (Aug. 24, 2015), <http://www.verticalsystems.com/vsglb/mid-year-2015-u-s-carrier-ethernet-leaderboard/> (Time Warner Cable, Comcast, and Cox are the fifth, sixth, and eighth largest providers of Ethernet services in the United States, respectively).

³ Matt Davis, IDC, *Market Analysis: U.S. SMB Telecom Voice and Data Services 2014-2018 Forecast*, at 6 (May 2014).

⁴ Verizon at 30-37; CenturyLink at 18-23; USTelecom at 15-20; AT&T at 14-15.

⁵ See, e.g., L. Kaplow, *Market Definition: Impossible and Counterproductive*, 79 *Antitrust L.J.* 361 (2013) (“Market definition is impossible. In light of this logical roadblock, it is fortunate that attempts at market definition are also counterproductive, for there is only gain, no loss, from abandoning this methodology.”); P. Areeda & L. Kaplow, *Antitrust Analysis: Problems, Texts, Cases* 571 (5th ed. 1997) (“it cannot be emphasized too strongly that market definition and the defendant’s market share give, at best, only a suggestion of defendant’s market power” and that the “boundaries of any product and geographic market are necessarily imprecise”); G. Faulhaber, R. Hahn & H. Singer, *Assessing Competition in U.S. Wireless Markets: Review of the FCC’s Competition Reports*, 64 *Fed. Comm. L.J.* 319, 327 (2012) (“As a general matter, direct evidence of monopoly power or anticompetitive effects is superior to indirect evidence of monopoly power derived from a traditional market definition inquiry (in which one defines a market to estimate market shares).”).

⁶ U.S. Dep’t of Justice & Federal Trade Comm’n, *Horizontal Merger Guidelines* § 5.2 (2010) (“2010 DOJ/FTC Horizontal Merger Guidelines”) (“[R]ecent or ongoing changes in market conditions may indicate that the current market share of a particular firm either understates or

forward-looking analysis that accounts for how the shift to new technologies and burgeoning demand expand the potential for competition for business broadband services going forward.

The Commission’s own precedent supports this approach. In the *AT&T Broadband Forbearance Order*, the Commission rejected the very type of analysis urged here — a market-share driven framework that generally focuses upon individual customer locations — in favor of a forward-looking analysis. The Commission held it was “appropriate to view a broadband marketplace that is emerging and changing,” as the one here, “from the perspective of the larger trends that are shaping the marketplace” without regard to “specific, identified geographic markets.”⁷ That same rationale requires rejecting a market-share-driven framework here.

Even if the Commission were to use a market-share-driven framework, however, it should adopt market definitions that reflect how the marketplace actually works,⁸ instead of narrow market definitions designed to yield a finding of market power.⁹ A central criticism of a market-share-driven framework is that it is prone to market definitions that presume an outcome finding market power, because “there does not exist any coherent way to choose a relevant market without first formulating one’s best assessment of market power, whereas the entire

overstates the firm’s future competitive significance.”); Christopher Pleatsikas & David J. Teece, *The Analysis of Market Definition and Market Power in the Context of Rapid Innovation*, 19 Int’l J. Indus. Org. 665, 687 (2001) (“defining markets from a static perspective when innovation is rapid will inevitably lead to identification of markets that are too narrow”).

⁷ *Petition of AT&T Inc. for Forbearance Under 47 U.S.C. § 160(c) from Title II and Computer Inquiry Rules with Respect to Its Broadband Services*, Memorandum Opinion and Order, 22 FCC Rcd 18705, ¶ 20 (2007) (“*AT&T Broadband Forbearance Order*”).

⁸ *United States v. Grinnell Corp.*, 384 U.S. 563, 590-91 (1966) (criticizing narrow market definitions tailored only to those activities in which defendants engage; relevant markets include alternative sources of, and substitutes for, defendants’ products reflecting “commercial realities”).

⁹ See *Windstream* at 9-48; *Level 3 et al.* at 13-30; *Sprint* at 10-20.

rationale for the market definition process is to enable an inference about market power.”¹⁰ That is precisely what some commenters have sought to do here. To ensure a finding of market power, these commenters have proposed narrow market definitions that are both out of touch with the actual marketplace and administratively unworkable. These commenters’ proposed approach would require the Commission separately to analyze competition for *millions* of individual “markets,” including multiple separate product markets for each of the millions of buildings and high-capacity routes nationwide.

A. The Commission Should Not Adopt Arbitrary or Narrow Product Markets

The types of customers that purchase business broadband services, the variety of services they purchase, and the uses of these services have all changed dramatically over time and remain in a state of flux. The customers of these services range from small businesses to large carriers; the services these customers purchase range from 1.5 Mbps to over 100 Gbps; and the use of these services includes everything from traditional, best-efforts Internet access to backhaul on wireless networks.¹¹ Given this wide and still-evolving variety of customers, services, and uses

¹⁰ L. Kaplow, *Why (Ever) Define Markets*, 124 Harv. L. Rev. 437, 440 (2010) (“The thesis of this Article is that the market definition process should be abandoned. The central, conceptual argument is that there does not exist any coherent way to choose a relevant market without first formulating one’s best assessment of market power, whereas the entire rationale for the market definition process is to enable an inference about market power. Why ever define markets when the only sensible way to do so presumes an answer to the very question that the method is designed to address? A market definition conclusion can never contain more or better information about market power than that used to define the market in the first place. Even worse, the inferences drawn from market shares in relevant markets generally contain less information and accordingly can generate erroneous legal conclusions — unless one adopts a purely results-oriented market definition stratagem under which one first determines the right legal answer and then announces a market definition that ratifies it.”).

¹¹ Computer & Communications Industry Association at 5-6, 8; INCOMPAS at 2, 4-6; National Association of State Utility Consumer Advocates and the Maryland Office of People’s Counsel at 3-4; Public Knowledge at 2-3; Baker Decl. ¶¶ 10-13, 17-19; Sprint at 70-71; XO at 4.

of business broadband services, arbitrarily subdividing this marketplace into discrete product markets is neither practical nor useful. In addition, the Commission lacks the data to define product markets using the standard approach in a market power framework — the small-but-significant-and-nontransitory-increase-in-price (“SSNIP”) test.¹²

The commenters seeking increased regulation gloss over these problems and argue for a huge number of narrowly drawn and contrived product markets that bear little relation to the real-world marketplace. These commenters acknowledge the absence of empirical data to support these product market definitions, but they argue the Commission may rely instead on “comparisons of prices charged for different services, comparisons of the technical characteristics of services, and the extent to which there is customer churn between two services.”¹³ But the Commission lacks empirical data regarding these criteria as well. And while the CLEC commenters submit a few declarations from their employees to support their claims, these statements contradict what these and other competitors are saying to customers in the marketplace, to investors, and to the public. Regardless, they cannot substitute for the empirical data required to do the type of analysis these commenters claim is necessary.

1. Cable Companies Market — and Customers Consider — Best-Efforts Broadband Services as Competitive Alternatives to Legacy TDM-Based Dedicated Business Broadband Services

Cable companies routinely market their best-efforts broadband services as an alternative to dedicated services such as DS1, and many business customers view them as competitive

¹² See Verizon at 19 n.48; *Special Access for Price Cap Local Exchange Carriers*, Report and Order and Further Notice of Proposed Rulemaking, 27 FCC Rcd 16318, ¶ 68 (2012) (“Notice”).

¹³ Level 3 *et al.* at 14; *see id.* (“While application of the SSNIP test yields sound product market definitions, the Commission often lacks the data needed to apply the test.”).

alternatives to legacy TDM-based dedicated services.¹⁴ Several commenters argue that the Commission should exclude best-efforts broadband services from its analysis because they do not offer the same functionality and performance levels as dedicated high-capacity services.¹⁵ But some of these same parties tell investors a very different story — that cable broadband services are a direct threat. For example, Windstream argues here (at 6-25) that customers for dedicated services don't view best-efforts broadband as a viable substitute. But in its most recent Annual Report, Windstream says losses of smaller business customers was “typically due to competition from cable companies,” who “have deployed technology to offer Internet services to their customers and offer competing voice and data services over the Internet connection.”¹⁶

The Commission cannot simply exclude best-efforts broadband services because they are not functionally identical to dedicated services. As Windstream acknowledges, there is a broad continuum of customers for high-capacity services that varies “based on business size, number of locations, and monthly expenditures on communications service,” among other things.¹⁷ For many customers, best-efforts broadband service provides a greater value proposition than dedicated services of comparable bandwidth, and the need for features such as “99.99 percent uptime,” “the ability to prioritize traffic among different Quality of Service (‘QoS’) levels for different applications,” and low jitter and latency is not worth the premium.¹⁸ Although the

¹⁴ See Verizon at 34-35.

¹⁵ See Windstream at 10-30; Level 3 *et al.* at 4, 15-17; Sprint at 12-14; Baker Decl. ¶¶ 5, 30-33; INCOMPAS at 2 n.3.

¹⁶ Windstream, Form 10-K, at 8, *attached to* Windstream 2014 Annual Report, http://files.shareholder.com/downloads/ABEA-43PVYW/1445572513x0x827021/18897894-31B3-44FD-A7FC-AF4C84B719A3/Windstream_2014_AR.pdf.

¹⁷ Windstream at 25.

¹⁸ *Id.* at 12-19; Level 3 *et al.* at 16-17; TDS Metrocom at 17.

CLEC commenters suggest that all customers who purchase dedicated access services require these features, they offer no evidence supporting this broad claim, nor any evidence regarding the portion of dedicated access customers who consider these features essential and worth the higher cost.¹⁹

There is, by contrast, considerable evidence that best-efforts broadband is a viable alternative to dedicated services for some business customers. XO states that its “Small Account and some of the smaller Mid-Size Account customers are increasingly getting more service options at lower prices and that offer higher bandwidths (from cable companies), such as Best Efforts Internet service. This type of small customer has less need than medium and large businesses and enterprise-level customers for managed IP-based communications with quality of service (‘QoS’) assurances.”²⁰ XO further admits that “providers of Best Efforts Internet service, such as cable companies, are making increasing inroads.”²¹

Cable companies market their best-efforts business services as an alternative to dedicated services. For example, when Comcast launched its 100 Mbps best-efforts Internet service over its DOCSIS 3.0 network, the President of Comcast Business Services announced that “100 Mbps service is ideal for data-intensive businesses that need this kind of speed and want an alternative

¹⁹ Mr. McReynolds of Level 3 states that “most of Level 3’s customers do not view these services as sufficient to meet their needs,” Level 3 McReynolds Decl. ¶ 20, but he does not quantify “most” or provide any support for this claim. Mr. McReynolds also acknowledges that “[w]hen cable companies offer broadband Internet access services subject to service level agreements, they may become somewhat more appealing to a small subset of customers.” *Id.* ¶ 21. But here, too, he fails to quantify or support his statements.

²⁰ XO Anderson Decl. ¶ 33.

²¹ *Id.*

to slower, more expensive T1 lines.”²² Comcast has also run television ads that compare its Business Class cable modem service to dedicated T-1 service.²³ When Charter upgraded the speeds of its best-efforts business Internet service, the company likewise compared its services to dedicated T1s, and it touted the wide range of business applications for which customers could use these best-efforts services.²⁴

Cisco, which provides inputs for high-capacity services and therefore has “the incentive to make a completely unbiased judgment on the matter,”²⁵ has likewise stated that cable best-efforts broadband service “presents a reliable access alternative to fixed lines because it is reliable, scalable (1 Mbps to 100 Mbps+), secure, and more cost competitive than traditional fixed lines (T1/T3) and current Metro Ethernet services.”²⁶ Cisco conducted interviews with

²² Comcast Press Release, *Comcast Launches 100 Mbps High-Speed Internet Service for Businesses in the Twin Cities* (Sept. 8, 2009), <http://corporate.comcast.com/news-information/news-feed/comcast-launches-100-mbps-high-speed-internet-service-for-businesses-in-the-twin-cities>.

²³ <https://www.youtube.com/watch?v=eVaYvNC6Eto>.

²⁴ Charter Press Release, *Charter Business Customers Stay on the Leading Edge of Internet Speed with Third Free Speed Increase for Commercial Customers* (Dec. 1, 2011), <http://ir.charter.com/phoenix.zhtml?c=112298&p=irol-newsArticle&ID=1635399> (“*Charter Business Internet Essentials 16*, with downstream speeds of 16 megabits per second (Mbps) and upstream speeds of 2 Mbps, will increase to up to 20 Mbps downstream and up to 3 Mbps upstream – at least 6 times faster than 3 Mbps DSL service and more than 13 times faster than T1. . . . With the increased speeds, businesses will have faster downstream and upstream times for file transfers and can more efficiently run billing systems and credit card processing, as well as enhance web server and email efficiency. In addition, employees will gain faster access to data and more applications with hosted, cloud-based services.”).

²⁵ *United States v. Western Elec. Co.*, 993 F.2d 1572, 1582 (D.C. Cir. 1993) (“Firms that sell goods and services that are *inputs* to the production and use of [advanced] services stand to gain an expanding market if the [ILEC’s] prediction is right, and have the incentive to make a completely unbiased judgment on the matter.”).

²⁶ Rob Rowello, Cisco White Paper, *Capturing Major Growth in Commercial Services: An Untapped Market Opportunity for Cable MSOs* at 4 (Aug. 2011),

small- and medium-sized businesses, “more than 50 percent” of which stated they would switch from a dedicated service to best-efforts cable service for a lower price.²⁷

2. Fixed Wireless Is Used Extensively as a Competitive Alternative to Wired Business Broadband Services

Business and carrier customers today use fixed wireless extensively.²⁸ The companies who provide these services — including some of the commenters here — characterize fixed wireless as an economic and technological alternative to wireline high-capacity services in instances where extending those wireline networks may not be viable.²⁹

Several commenters argue that the Commission should exclude fixed wireless from its analysis because it faces certain limitations not found with wireline business broadband services.³⁰ But here, too, these statements contradict what some of these same parties are telling investors and the public. For example, Windstream claims here (at 30 n.80) that “[f]ixed wireless faces various limitations for customers, including depending on the technology and frequencies used, congestion, interference, rain fade, and need for line-of-sight such that it cannot be assumed to work at every location.”³¹ In the marketplace, however, Windstream sings

https://www.cisco.com/web/about/ac79/docs/sp/Next-Generation-Access-Networks_Cable-MSOs_and_SMB_Market.pdf.

²⁷ *Id.* at 5.

²⁸ *See* Verizon at 42-44.

²⁹ *See id.*

³⁰ *See* Windstream at 30 & n.80; Level 3 *et al.* at 15, 17-18.

³¹ To support its claim that line-of-sight issues prevent the use of fixed wireless in many instances, Windstream (at 30 n.80) claims that <<<

>>>. But even putting aside
Windstream’s failure to provide any supporting details for this claim, this single example is hardly representative, given the unusual high building density of this metropolitan area. Even accepting the claim at face value, however, it demonstrates that there is a viable competitor for at least <<< >>> of customers even in areas not particularly well-suited to fixed wireless.

a different tune.³² It not only just recently bought a fixed wireless provider,³³ but claims that “[f]ixed wireless is as reliable as any comparable technology,”³⁴ that it is “an affordable alternative to fiber optic or traditional copper/coax networks and is an ideal fit for businesses in need of high-bandwidth, enterprise-class Ethernet connectivity,” and that “the advantages of the service, particularly in areas where Windstream has not built out its own facilities, is that it is a cost-effective alternative to wireline fiber or copper/coax that can be quickly installed yet offers higher speeds and security.”³⁵

Sprint’s recent announcements about the modernization of its wireless backhaul network provide more evidence of fixed wireless’ viability as a competitive alternative to wireline business broadband services. Although Sprint’s comments here notably omit any mention of fixed wireless, in January 2016 the company told investors it had finalized plans for overhauling its network, which involves much greater use of microwave for backhaul. The company’s CTO John Saw, stated he was “confident that with a backhaul strategy of dark fiber and microwave

³² See Windstream, *Fixed Wireless: Frequently Asked Questions* (Aug. 2015) (“Windstream, *Fixed Wireless: Frequently Asked Questions*”), <http://www.windstreambusiness.com/resources/faqs/fixed-wireless>.

³³ Windstream News Release, *Windstream Acquires Chicago-Based Fixed Wireless Provider* (Oct. 1, 2014), http://news.windstream.com/article_display.cfm?article_id=1575.

³⁴ Windstream, *Fixed Wireless: Frequently Asked Questions*.

³⁵ Sean Buckley, *Windstream Brings Fixed Wireless Service to Boston, Deepens Alternative Ethernet Access Reach*, Fierce Telecom (July 16, 2015), <http://www.fiercetelecom.com/story/windstream-brings-fixed-wireless-service-boston-deepens-alternative-etherne/2015-07-16>; see also *Windstream Announces Fixed Wireless Availability in Cleveland*, Market Watch (Sept. 16, 2015), <http://www.marketwatch.com/story/windstream-announces-fixed-wireless-availability-in-cleveland-2015-09-16> (Joseph Harding, Windstream’s enterprise executive vice president and chief marketing officer: “This solution is an affordable alternative to fiber optic or traditional copper/coax networks and is an ideal fit for businesses in need of high-bandwidth, enterprise-class Ethernet connectivity, supported by our industry-certified dedicated account teams and engineers and backed by our ‘smart solutions, personalized service’ brand promise.”).

and small cells being surgical and precise, we can have a very low cost and efficient backhaul plan.”³⁶

B. The Commission Should Not Adopt Arbitrary or Narrow Geographic Markets

A building-specific market definition, as some commenters propose, is out of touch with reality. When combined with the narrow product markets those commenters also seek, building-specific geographic markets would produce millions of distinct markets, causing an administrative nightmare for all involved.

First, a building-specific approach is inconsistent with how providers and consumers alike view the marketplace. Competitors for business broadband services compete across broad geographic areas, not just within the buildings in which they have already deployed facilities. And customers for these services do not just consider the providers already at their location when seeking an alternative to their current provider. ILECs do not price the legacy TDM services that are the subject of this proceeding on a building-by-building basis, but instead offer uniform prices across broad geographic areas.³⁷ This ensures that customers in areas with more limited competitive alternatives get the benefit of prices set in areas with extensive competition.³⁸

³⁶ Sue Marek, *Sprint Will Use 2.5 GHz Spectrum, Dark Fiber for Backhaul to Small Cells*, FierceWireless (Jan. 26, 2016), http://www.fiercewireless.com/story/sprint-will-use-25-ghz-spectrum-dark-fiber-backhaul-small-cells/2016-01-26?utm_medium=nl&utm_source=internal&mkt_tok=3RkMMJWWfF9wsRonsqXAeu%2FhmjTEU5z17esuX6G0lMI%2F0ER3fOvrPUfGjI4CS8RjMa%2BTFAwTG5toziV8R7LMKM1ty9MQWxTk.

³⁷ Verizon at 62-63; Comments of Verizon at 7, WC Docket No. 05-25 & RM-10593 (FCC filed Aug. 8, 2007) & Attach. A, Supplemental Declaration of William E. Taylor on Behalf of Verizon ¶ 7 (“Taylor Decl.”); Comments of Verizon at 11-12, WC Docket No. 05-25 & RM-10593 (FCC filed Jan. 19, 2010).

³⁸ See Taylor Decl. ¶ 13.

Second, a building-specific approach is inconsistent with how competitive forces operate in the business broadband marketplace. The CLEC comments also confirm that the mere possibility a CLEC will deploy fiber to a new location is enough to have a price-disciplining effect. When a potential customer for high-capacity services solicits bids or otherwise requests service, providers do not know with any reasonable degree of certainty which other providers can serve that customer over their own facilities, particularly if the customer is seeking service at more than one location. They must instead make much rougher assessments of the possibility of facing competitive bids, based, for example, on the presence of competitive facilities within the general vicinity of the customer. Thus, even the mere presence of a nearby competitor can affect the price they decide to charge. The pricing regression analysis by Dr. Jonathan Baker that Windstream, Level 3, and XO submitted <<< >>> (although as discussed below that analysis contains many flaws).³⁹ As Dr. Baker notes: <<< >>>.⁴⁰

Third, a building-specific approach also is at odds with how competitors decide to deploy their facilities. A defining characteristic of the business broadband marketplace is that demand is highly concentrated geographically, typically in downtown urban areas and office parks.⁴¹ Competitive providers typically deploy metropolitan networks where there is concentrated demand, and then they extend those networks to individual locations where it makes economic

³⁹ Baker Decl. ¶ 57 & Table 2.

⁴⁰ *Id.* ¶ 58 (emphasis added).

⁴¹ Verizon at 24; M. Israel, D. Rubinfeld & G. Woroch, *Competitive Analysis of the FCC's Special Access Data Collection*, WC Docket No. 05-25 & RM-10593, at 11 (FCC filed Jan. 27, 2016) (“Israel *et al.*, *Competitive Analysis of the FCC's Special Access Data*”).

sense to do so.⁴² Today, competitive facilities are deployed in virtually every census block with special access demand, and those census blocks contain nearly every special access connection and business establishment.⁴³ Once competitors deploy metropolitan networks, they have a variety of alternatives to serve customers, including extending their facilities to the customer's location. The comments here confirm that, in making that decision, competitive providers typically do not apply rigid rules or formulas, but instead evaluate these opportunities case-by-case, to determine whether potential revenue opportunities are likely to exceed costs.⁴⁴ And in making this determination they do not consider just the economics for that single customer or location, but also whether extending the fiber to one location increases the ability to use those facilities to obtain revenues at other adjacent or nearby locations. Once competitors have deployed facilities to a location, they typically can use them to serve many adjacent locations at much lower marginal cost.⁴⁵

⁴² See XO Kuzmanovski Decl. ¶ 4 (“XO entered initially by building metro rings in dense areas of major cities, since these could aggregate traffic from more users and hence were more economical.”); *id.* ¶ 33 (“Historically, in XO’s experience, CLECs have tended to cluster their fiber paths in areas where there is the combination of concentrations of MTE buildings with large numbers of tenants, plenty of existing utility conduit, and spare fiber available for swap, purchase, or IRUs (from initial metro-ring builders), presumably because there is more opportunity to acquire customers in these areas at lower cost, thereby reducing the risk of a build or fiber purchase.”).

⁴³ Competitive providers have deployed facilities in more than <<< >>> of the census blocks in MSAs with any demand for high-capacity services. Those census blocks represent about <<< >>> of the total special access locations with connections and about <<< >>> of business establishments in census blocks with special access facilities. Israel *et al.*, *Competitive Analysis of the FCC’s Special Access Data* at 5.

⁴⁴ Verizon at 35-36, 43-45; XO Kuzmanovski Decl. ¶ 24 (“XO does not have a hard and fast rule regarding the distance over which it will build rather than buy, or the minimum level or capacity of service.”).

⁴⁵ Verizon at 21-24; XO Kuzmanovski Decl. ¶ 7 (“the costs to reach new customers from existing facilities tend to be much less than the costs to pursue opportunities to serve customers in new metro areas, even if XO has long haul fiber facilities bypassing the city”); Level 3 *et al.* at

For example, Windstream states that it “evaluates each potential fiber build to an office building based on the projected internal rate of return, which is influenced by a number of factors such as the anticipated level of demand for services and the expected margins on those services, whether there are existing off-net access costs for that particular building, whether running fiber to that building brings another group of buildings closer to the company’s fiber, and the potential revenue opportunities from those buildings.”⁴⁶ Windstream further acknowledges that it does not have rigid criteria regarding the distance over which they will extend fiber, and is willing to extend large distances when the various revenue opportunities it considers justify it.⁴⁷

Given that competitors have extensive networks in all metropolitan areas where high-capacity demand is concentrated, and that the decision to extend these networks to serve customers is not based on hard and fast rules or the economics of individual locations, there is no valid basis for the Commission to adopt each customer location as a separate geographic market. Rather, once the Commission identifies areas of concentrated demand within each metropolitan area, it should determine whether there are competitors serving that area of concentrated demand and, if so, conclude that competition is possible throughout that area. This approach is also far more practical, whereas location-specific geographic markets would be administratively unworkable.

35-36 (“To be sure, loop deployment costs are distance-sensitive and cable companies would likely have somewhat lower loop deployment costs in areas where they have deployed extensive transport networks.”).

⁴⁶ Windstream Deem *et al.* Decl. ¶ 50.

⁴⁷ *Id.* ¶ 51 (“In general, Windstream will not consider building new fiber facilities to buildings that are further than <<<

>>>.”).

C. The Commission Must Properly Account for Potential Competition

The shift from TDM to Ethernet and exploding growth of broadband wireless and wireline data has created enormous new opportunities for the competitive supply of business broadband connections. Given these trends, competition in the marketplace as of 2013 is not a sufficiently reliable measure of competition today or in the near future. The Commission must instead account for the significant potential for even greater competition to develop taking into account these changing marketplace conditions.

First, the Commission must account for cable's vast potential to continue to grow in serving all segments of the business broadband marketplace. Cable companies are not only increasingly dominant providers of wireline residential broadband nationwide, but they also have expanded their networks and services quickly and aggressively to provide both best-efforts and dedicated broadband services to businesses of all sizes.⁴⁸

The CLEC commenters have no serious answer to cable's increasing presence. Outside of this proceeding, some of these companies have warned their investors about the growing threat cable poses. For example, Windstream's most recent 10-K states that "[c]able companies are also a source of competition, primarily for small business customers, but they have begun to compete for larger customers by expanding their product and sales capabilities."⁴⁹ And while Windstream and others contend here that cable companies are not well positioned to serve larger enterprise customers,⁵⁰ those customers represent only one segment of the broader high-capacity

⁴⁸ Verizon at 14-15, 28-40.

⁴⁹ Windstream Holdings, Inc., Form 10-K, Financial Supplement at F-6 (SEC filed Feb. 24, 2015), <http://www.sec.gov/Archives/edgar/data/1282266/000128226615000010/0001282266-15-000010-index.htm>.

⁵⁰ Windstream at 20; Level 3 *et al.* at 29.

marketplace.⁵¹ Even with respect to this segment, however, marketplace evidence shows that cable operators are succeeding even where they are relative newcomers. On February 3, 2016, Comcast's Senior EVP and CFO of Business Services, Mike Cavanagh, announced that Comcast's "recently announced enterprise division that targets Fortune 1000 companies . . . is gaining traction with more than 20 large enterprise customers and multiple eight-figure deals already signed."⁵² As Level 3 acknowledges (at 28-29), although Comcast does not have nationwide facilities, it has "struck wholesale agreements with other cable companies including Charter, Time Warner Cable, Cox, Cablevision, and Mediacom," instead of turning to ILEC facilities, which puts the lie to CLEC claims that leasing ILEC facilities is the only viable way for competitive providers to pursue larger multi-location customers.⁵³

The Commission must also reject arguments to exclude cable facilities that are used to provide retail services to end-user customers but that are not offered on a wholesale basis to other competitive providers.⁵⁴ It is well-settled that self-supply used in providing retail services

⁵¹ Windstream at 26 ("Windstream's experience affirms that there is a broad range of customers comprising the dedicated services market.").

⁵² Thomson Reuters StreetEvents, *CMCSA – Q4 2015 Comcast Corp Earnings Call*, Edited Transcript at 5 (Feb. 3, 2016), http://files.shareholder.com/downloads/CMCSA/1340518353x0x873205/811126E6-3CE1-48AE-9B1B-81A2B4AFA03A/Comcast_4Q15_Earnings_Transcript.pdf.

⁵³ Level 3 also claims (without support) that some of these other cable operators "do *not* plan to compete for these enterprise customers themselves," but in fact some (such as Cox and Cablevision) have been doing so for years and report considerable success doing so. Level 3 *et al.* at 29; *see also, e.g.*, Ex Parte Letter from Curtis L. Groves, Verizon, to Marlene H. Dortch, FCC, WC Docket No. 05-25 & RM-10593, at 2-4 & Appendix at 4-11 (Sept. 24, 2015) (describing the efforts to serve enterprise customers by Time Warner Cable, Cox, and Cablevision).

⁵⁴ Windstream at 32; Level 3 *et al.* at 17; XO at 39.

must be included in a competitive analysis together with wholesale competition.⁵⁵ The focus under both the Act and the antitrust law is on whether there is competition for end-user customers, not on individual competitors and their particular business models.

Second, the Commission must also properly account for CLECs' (and all competitors') ability to extend their fiber networks to serve additional locations. The Commission must look not only where competition has emerged and is likely to emerge based on current economics, but also where competition is likely to be possible in the future based on the dynamic shifts in the marketplace.⁵⁶ For example, the Commission must determine the locations where competitors are likely to extend high-capacity facilities in the near term, given rising demand, as well as the locations where demand is sufficiently concentrated in 2013 or even today.

The commenters acknowledge that, according to the Commission's data for year-end 2013, competitive facilities have been deployed to at least <<< >>> percent of customer locations nationwide.⁵⁷ These commenters also acknowledge they continue to deploy fiber to

⁵⁵ See, e.g., *AT&T Corp. v. Iowa Utils. Bd.*, 525 U.S. 366, 389 (1999) (faulting the Commission for failing to consider carriers that self-provide facilities in evaluating competitive alternatives), and other cases cited in Comments of Verizon and Verizon Wireless n.61, WC Docket No. 05-25 & RM-10593 (FCC filed Feb. 11, 2013).

⁵⁶ The CostQuest study that Windstream has previously submitted and references in its comments here fails to account for these changes in the marketplace and also is flawed in other respects. Among other reasons, this analysis considers the economics of competitive deployment on a customer-by-customer and building-by-building basis, which is improper for the reasons discussed above. CLECs consider all potential revenues in deciding whether and where to build, including all the potential revenues at a given location, as well as potential revenues from nearby locations.

⁵⁷ Level 3 *et al.* at 23; Baker Decl. Table 1 (<<< >>>); Windstream at 9 (<<< >>>); Sprint Zarakas/Gately Decl., Appendix C, Table 5 (<<< >>>); Sprint at 2 & Sprint Besen/Mitchell Decl. ¶¶ 25-26 (CLECs have competing facilities at <<< >>> of purchaser locations); Ad Hoc Telecommunications Users Committee at 5 (<<<

new locations every year.⁵⁸ Although some commenters claim this does not “come close to matching the number of commercial buildings to which the large incumbent LECs have deployed connections,”⁵⁹ that comparison is inapt. As these commenters concede, only a fraction of all buildings contain demand for high-capacity services, and a disproportionate share of this demand is in an even smaller subset of those locations, such as large multi-tenant commercial buildings.⁶⁰ Competitors either already have deployed competitive facilities, or they are capable of deploying them where demand is highly concentrated.⁶¹

Some commenters also contend that their business models and financial situations limit their ability to deploy additional fiber.⁶² But it would be improper for the Commission to limit its analysis to an individual CLEC’s particular business model or financial status.⁶³ For example,

>>>); Ad Hoc Telecommunications Users Committee Gately Decl., Appendix A, Table 1 (<<<< >>>>).

⁵⁸ Windstream Deem *et al.* Decl. ¶¶ 50, 52 (“Windstream is connecting additional buildings in its CLEC areas to our fiber network Windstream’s current CLEC fiber last-mile deployment plans target — <<<<

>>>>); Level 3 *et al.* at 33-34 (“Level 3 aims to deploy new loops to approximately 3,000 to 4,000 commercial buildings in the U.S. each year.”).

⁵⁹ Level 3 *et al.* at 34.

⁶⁰ For example, Windstream claims (at 26) that “[t]he lower end segment of the market is most concentrated with businesses with between typically 25 and 100 employees, up to ten locations, and monthly communications spends ranging from \$1,000 to \$5,000.” According to U.S. census data, there are 7,488,353 business establishments nationwide, 652,075 of which (8.7%) have 20-49 employees and 221,192 of which (3%) have 50-99 employees. *See* U.S. Census Bureau, 2013 *County Business Patterns (NAICS)*, <http://censtats.census.gov/cgi-bin/cbpnaic/cbpsect.pl>.

⁶¹ Verizon at 24-28.

⁶² Windstream at 36-38; Level 3 *et al.* at 32-35; TDS Metrocom at 18-23.

⁶³ *Cf. Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers*, Report and Order and Order on Remand and Further Notice of Proposed Rulemaking, 18 FCC Rcd 16978, ¶¶ 415, 500, 517 (2003) (impairment inquiry “must be based on the most efficient business model for entry rather than to any particular carrier’s business model,” and

although some CLEC commenters claim they are able to add relatively few new buildings each year because of business constraints, Time Warner Cable has recently announced it made a “[s]ignificant investment during 2015 to improve customer experience and expand network,” which included “66,000 commercial buildings added to [its] network,” “representing an estimated \$975 million in serviceable annual opportunity.”⁶⁴ Competitive deployment is viable at many more locations than what CLEC business models may suggest.

In an attempt to show the lack of growing competitive alternatives, Sprint argues (at 55) that its Network Vision plan to overhaul its wireless backhaul network enabled it to “attract a few alternative vendors in some locations,” but that “[f]or many cell sites, Sprint simply had to continue its existing service — incumbent-LEC-supplied TDM backhaul in most cases — because Sprint did not receive any Ethernet bids at all.” This is directly at odds with what Sprint announced in its most recent 10-K, which states that “[a]s part of our recently completed modernization program, we modified our existing backhaul architecture to enable increased capacity to our network at a lower cost by utilizing Ethernet as opposed to time division multiplexing (TDM) technology.”⁶⁵ Sprint’s claims here also run contrary to Sprint’s actual experience with Verizon during implementation of its Network Vision plan. Sprint opened its

rejecting claims of impairment premised on the failure or financial struggles of individual carriers).

⁶⁴ Time Warner Cable, Fourth-Quarter and Full-Year 2015 Earnings Summary, at 4 (Jan. 28, 2016); Thomson Reuters StreetEvents, *TWC – Q4 2015 Time Warner Cable Inc Earnings Call*, Edited Transcript at 6 (Jan. 28, 2016) (statement by Time Warner Cable Inc. — SVP, Treasurer & Acting Co-CFO Matt Siegel).

⁶⁵ Sprint Corp., Form 10-K, at 27 (SEC filed May 26, 2015), <http://www.sec.gov/Archives/edgar/data/101830/000010183015000012/sprintcorp201410-k.htm>.

backhaul business to competitive bids for backhaul to approximately 38,000 sites.⁶⁶ Although Verizon bid for a significant portion of this business, including all of the business within its incumbent footprint, Sprint awarded Verizon less than 6% of the sites in the Verizon incumbent footprint.⁶⁷

Sprint's supposed failure to attract competitive bidders (which it fails to substantiate) also runs contrary to other wireless carriers' experiences. T-Mobile, which has not filed comments in this proceeding, announced in August 2012 that it had "upgraded to fiber backhaul on over 32,000 cell sites," which it achieved by "working with dozens of backhaul partners," which included cable operators (Bright House Networks) as well as numerous CLECs (including FPL FiberNet, IP Networks, and Zayo Bandwidth).⁶⁸ In October 2015, analysts asked T-Mobile's CTO, Neville Ray, about the FCC "starting to make noise about attacking some of the rate

⁶⁶ See Ex Parte Letter from Tara S. Emory, Skadden, Arps, Slate, Meagher & Flom LLP, Counsel to Sprint Nextel Corporation, to Marlene Dortch, FCC, WT Docket No. 12-4, Attachment at 3 (July 9, 2012); Comments of Verizon and Verizon Wireless, WC Docket No. 05-25 & RM-10593, at 17 (FCC filed Feb. 11, 2013).

⁶⁷ See Ex Parte Letter from Kathleen Grillo, Verizon, to Marlene Dortch, FCC, WC Docket No. 05-25 & RM-10593, at 2 (Sept. 12, 2012).

⁶⁸ David Beren, *T-Mobile Says "Backhaul Strategy Key to A Competitive 4G Experience,"* TmoNews: The Unofficial T-Mobile Blog (Aug. 1, 2012), <http://www.tmonews.com/2012/08/t-mobile-says-backhaul-strategy-key-to-a-competitive-4g-experience/>; Wayne Rash, *T-Mobile LTE Backhaul Nearly Complete*, FierceMobileIT (Aug. 7, 2012), <http://www.fiercemobileit.com/story/t-mobile-lte-backhaul-nearly-complete/2012-08-07>; T-Mobile News Release, *T-Mobile Signs New Backhaul Agreements for Six Major U.S. Markets* (Sept. 18, 2008), <https://newsroom.t-mobile.com/news/t-mobile-signs-new-backhaul-agreements-for-six-major-us-markets.htm>; Phil Goldstein, *T-Mobile To Focus on 1900 MHz LTE Deployment To Expand Network Footprint*, FierceWireless (Sept. 24, 2014), <http://www.fiercewireless.com/story/t-mobile-focus-1900-mhz-lte-deployment-expand-network-footprint/2014-09-24>.

structure” for special access services. Mr. Ray responded that special access was simply not “our battle to fight” because T-Mobile was “in a good place already.”⁶⁹

II. Despite Flaws with the Data, the Record Demonstrates Extensive Competition for High-Capacity Services in Areas with Concentrated Demand

Although the Commission’s data understate the extent of actual and potential competition, even with these shortcomings these data show competitors have deployed networks capable of providing high-capacity services in all metropolitan areas throughout the country that contain concentrated demand for these services. Competitors have deployed facilities in more than <<< >>> of the census blocks in MSAs with demand for high-capacity services.⁷⁰ Those census blocks represent about <<< >>> of the total special access locations with connections and about <<< >>> of business establishments in census blocks with special access facilities.⁷¹ Even excluding data from the National Broadband Map, more than <<< >>> of business establishments located in census blocks with some type of special access demand are in areas with competitive fiber.⁷²

As the comments confirm, moreover, the Commission’s data are incomplete and understate competition in the marketplace. A number of the CLEC commenters acknowledge they have continued to extend their networks since 2013.⁷³ They also acknowledge that their purchases from other competitive providers, including cable operators, have grown since that

⁶⁹ See T-Mobile Earnings Report: Q3 2015 Conference Call Transcript (Oct. 28, 2015), <http://www.thestreet.com/story/13341417/14/t-mobile-us-inc-tmus-earnings-report-q3-2015-conference-call-transcript.html> (statement by Neville Ray, EVP & CTO, T-Mobile).

⁷⁰ See Israel *et al.*, *Competitive Analysis of the FCC’s Special Access Data* at Table C.

⁷¹ See *id.* at 5.

⁷² See *id.* at 21.

⁷³ See, e.g., Level 3 *et al.* at 33-34 (“Level 3 aims to deploy new loops to approximately 3,000 to 4,000 commercial buildings in the U.S. each year.”).

time. For example, <<<

>>>. ⁷⁴

Several commenters argue that ILECs have high market shares and that competition is inadequate to constrain ILEC prices. But each of these showings is flawed and none provides a basis for the Commission to conclude that ILECs have market power.

A. The CLEC Commenters' Market Share Analyses Are Flawed

As both Commission and antitrust precedent recognize, market shares are a poor predictor of market power in dynamic marketplaces.⁷⁵ Market shares based on the Commission's data are particularly problematic given that they reflect the status of the marketplace more than two years ago, distancing them even further from the forward-looking analysis the Commission should conduct.

Ignoring these concerns, several commenters calculate market shares that they claim as evidence of ILEC market power. All of these analyses exclude competition from best-efforts broadband and fixed wireless. They also appear to exclude other types of competition from their analysis.⁷⁶ And these analyses have many other flaws.

⁷⁴ See <<<

>>>.

⁷⁵ See nn.5-6, *supra*.

⁷⁶ Dr. Baker's analysis states: "We purposely use the term CLEC throughout this Declaration rather than the broader 'competitive provider' term defined in the *Data Collection Order*. By design, our analysis attempts to focus upon the services offered by access service providers and access services." Sprint Zarakas/Gately Decl. ¶ 7 n.2. Dr. Baker does not define a class of access service providers or access services.

First, some commenters calculate market shares of buildings based on the Commission's location data.⁷⁷ But a building-specific analysis is improper because it wrongly assumes that competition is limited to the existing number of providers at a building, and that additional entry at that location is unlikely to occur. Calculating market shares based on buildings also ignores that buildings vary greatly in size and in the amount of high-capacity demand they generate. Competitors target the buildings with the most concentrated demand, and their share of buildings therefore understates the actual share of demand they are able to capture.

Second, several commenters compute shares of circuits and revenues by bandwidth categories, "regardless of technology."⁷⁸ These analyses improperly conflate TDM and Ethernet services. In fact, these commenters' own analysis shows that at bandwidths above 50 Mbps, which are provided almost entirely via Ethernet, competitive providers have captured more than <<< >>> of circuits in every bucket, and more than <<< >>> of circuits in the highest-capacity bucket of 800+ Mbps.⁷⁹ These calculations also do not account for the concentrated nature of demand. ILECs provide many high-capacity circuits in far-flung areas that are costly to serve, which artificially inflates ILECs' nationwide market share relative to the share in areas where high-capacity demand is heavily concentrated.

Third, several commenters analyze competition by census block, but in doing so exclude (without explanation) data derived from competitors' fiber maps.⁸⁰ Their analysis includes only

⁷⁷ Baker at 59, Table 1; Sprint Zarakas/Gately Decl. Appendix C, Table 5.

⁷⁸ Sprint Zarakas/Gately Decl. ¶ 16 & Appendix C, Tables 2 & 3.

⁷⁹ *Id.* ¶ 16 & Appendix C, Table 2.

⁸⁰ *Id.*, Appendix C, Table 4. The CLEC commenters also calculate bandwidth shares by census blocks, which like the bandwidth- and circuit-based analyses discussed above, fail to account for the concentrated nature of demand and artificially inflate ILECs' market share.

the location-based data the Commission collected in II.A.4, and not the additional fiber map information in II.A.5. This is improper. Where there is fiber in a census block, it can readily be used to serve all buildings with special access demand within that discrete area. Indeed, CLECs acknowledge that most of their recent fiber extensions involved a distance <<<

>>>.⁸¹ And the fiber map data is conservative because it excludes last-mile cable fiber, and includes only their middle-mile facilities.

B. The CLEC Commenters' Pricing Regression Analysis Is Flawed

The pricing regression analysis that the CLEC commenters have submitted from Dr. Baker does not adhere to principles that are essential to identifying the manipulation and other distorting effects to which econometric models are susceptible. In the context of business broadband services, an econometric model must attribute economic values to the myriad non-price terms in the tariffs and agreements under which these services are bought and sold and account for the differences among them. It is also critical for any econometric analysis to be fully transparent, so that parties have the opportunity to evaluate its structure to ensure that it does not contain errors that improperly bias the results.

⁸¹ Compare <<<

>>> with Windstream at 37

(<<<<

>>>); Baker Decl. ¶ 43 n.40 (<<<<

>>>); XO

Kuzmanovski Decl. ¶ 24 (“the overwhelming number of builds XO undertakes have been within <<<< >>>> linear feet” of a splice point on XO fiber); TDS Metrocom at 20 (“TDS CLEC does not even bid on projects where the fiber build distance is greater than a relatively short distance, as close as <<<< >>>> in some cases).

Dr. Baker's pricing regression analysis does not follow these principles, and as a result it is fatally flawed. It is conducted at a building-specific level but makes no attempt to account for the fact that ILECs do not price on a building-specific basis. It analyzes average prices but makes no attempt to value the various other terms and conditions that may affect the true underlying economics. And it is a black box, because the CLEC commenters have presented only their end results, not the underlying data, formula, and assumptions used to generate those results. Dr. Baker's regression analysis also excludes certain types of competition, including best-efforts cable modem and fixed wireless. And the analysis is flawed and unreliable in the following additional respects.⁸²

First, Dr. Baker's regression analysis <<<

>>>. According to Dr. Baker, his analysis shows that <<<

>>>.⁸³ This is mistaken even according to his results, which shows the greatest incremental reduction as a result of a <<< >>>; Dr. Baker

⁸² Dr. Baker concedes that, <<<

>>>. Baker Decl. ¶¶ 90-92. This is because the incumbent LEC would "lower the price at the end of the contract, in response to the competitor's offer at that time. But for customers still in the middle of multi-year contracts during 2013, when the pricing data was gathered, the incumbent LEC's price would appear to be unaffected by competitive entry. The only way to address this problem is to use a time series of data, but that is not available here." Level 3 *et al.* at 54.

⁸³ Baker Decl. ¶ 58.

does not separately report any data for <<<

>>>.⁸⁴

According to Dr. Baker, <<<

>>>.⁸⁵ Taking ILEC retail and wholesale prices together, his analysis shows that

<<<

>>>.⁸⁶ As a

matter of simple mathematics, this indicates that the competitive effect on wholesale prices of a third CLEC entering a building is much less significant than its effect on retail prices, and it could even be in the opposite direction. In all cases, Dr. Baker's failure to report these results suggests they are unhelpful to his arguments.

Second, Dr. Baker also <<<

>>>. This omission removes an important benchmark against which to test Dr.

Baker's theory and the validity of his conclusions about the effect of multiple entry on ILEC prices. Further, Dr. Baker's analysis of ILEC and CLEC retail prices combined undermines his conclusion and the validity of the study. Those data show that <<<

>>>.⁸⁷ This same

effect is observed <<<

⁸⁴ See *id.* at Table 2.

⁸⁵ *Id.* ¶ 57.

⁸⁶ See *id.* at Table 2 (column 3).

⁸⁷ See *id.* at Table 2 (column 2).

>>>.⁸⁸ These anomalous results suggest there are factors affecting the data or methodology for which Dr. Baker did not account.

Third, Dr. Baker's results do not hold <<<

>>>.⁸⁹ Dr. Baker offers no explanation for why <<<

>>>.

Given its many flaws, Dr. Baker's analysis provides no empirical support for the commenters' claim that ILECs can exercise market power at locations with fewer than three competitive alternatives in addition to the ILEC.⁹⁰ Nor does the economic literature support the view that a minimum of three or four providers are needed in the market in order to ensure competitive pricing.⁹¹ Rather, as the Declaration of Drs. Besen and Mitchell acknowledges, this

⁸⁸ *See id.* at Table 2 (column 6).

⁸⁹ *See id.* at Table 2 (columns 8-13).

⁹⁰ Sprint Besen/Mitchell Decl. ¶ 47.

⁹¹ *Petition of Qwest Corporation for Forbearance Pursuant to 47 U.S.C. § 160(c) in the Phoenix, Arizona Metropolitan Statistical Area*, Memorandum Opinion and Order, 25 FCC Rcd 8622, ¶ 30 & n.91 (2010) ("We acknowledge, however, that under certain conditions duopoly will yield a competitive outcome. . . . For example, under Bertrand competition, in which each firm maximizes its profits by choosing the price at which it will sell its output, duopoly will yield a competitive result under certain assumptions.") (citing Andreu Mas-Collel, Michael Whinston & Jerry Green, *Microeconomic Theory*, ch. 12 (1995)); Joseph Stiglitz, *Competition and the Number of Firms in the Market: Are Duopolies more Competitive than Atomistic Markets?*, 95 *J. of Political Economy* 1041, 1042 (1987) ("If there are a finite number of firms, the equilibrium price is below the monopoly price: duopoly appears to be more competitive than atomistic competition. The reason for this is that, in the atomistic models that have been studied, if a firm lowers its price, it will not induce search, whereas in a duopoly, it will. Thus the perceived price elasticity with duopoly is greater than in atomistic competition. As the number of firms increases, the cost of finding a low-price store increases. Hence, the amount of induced search is

is highly case specific: “the exact number may be different in different industries, based on their different cost and demand characteristics.”⁹² Drs. Besen and Mitchell point to a handful of academic papers to support their claim that “it is likely that four—and certainly more than two—providers are needed to give a competitive outcome in the special access markets under consideration in this proceeding.”⁹³ But these papers relate to entirely different industries (food retailing, condominium, tax exempt bonds, gasoline retailing, and bond underwriting) that bear no obvious parallels to high-capacity services or even telecommunications more generally. Drs. Besen and Mitchell make no attempt to show that these other industries have similar “cost and demand characteristics” that make them relevant to the business broadband marketplace.

In contrast, both evidence from this proceeding and involving other communications markets demonstrates adding a first or second competitor can have a significant effect. For example, Level 3 acknowledges that it “sometimes adjusts the rates, terms, and conditions on which it offers dedicated services in response to competing cable company offers to provide

reduced. Increasing the number of firms seems to have an anticompetitive effect.”); Christopher S. Yoo, *Vertical Integration and Media Regulation in the New Economy*, 19 Yale J. on Reg. 171, 265 (2002) (“One of the unique qualities of Bertrand competition is that it supposes that two competitors are sufficient to drive the price down to competitive levels. Thus, unlike under other oligopolistic analyses in which reductions in the number of competitors gradually lead to increasingly anti-competitive results, under Bertrand competition, the existence of as few as two competitors is sufficient to drive prices down to the levels that would result under perfect competition.”); George S. Ford, Ph.D. & Lawrence J. Spiwak, Esq., *The Need for Better Analysis of High Capacity Services*, 28 J. Marshall J. Computer & Info. L. 343, 356-58 (2011) (“With Cournot competition, price and profits fall as the number of firms increases, converging on the competitive equilibrium as the number of firms gets large. . . . An alternative and frequently employed formulation of competition is “Bertrand Competition” or “competition in prices.” Here, firms choose price and sell whatever quantities consumers demand at that price. . . . Unlike the Cournot model, where prices and profits fall gradually as the number of firms increases, with Bertrand competition the perfectly competitive outcome is obtained with only two firms.”).

⁹² Sprint Besen/Mitchell Decl. ¶ 47.

⁹³ *Id.*

Ethernet-over-fiber or DSn-over-fiber services. For example, on August 19, 2015, Level 3 offered a business customer <<<

>>> in order to beat a competing offer for dedicated services from a cable company who had deployed fiber facilities to that location.⁹⁴ In the video programming marketplace where there is also a wireline incumbent, the Commission has previously found that the entry of a single overbuilder had a price-constraining effect on the incumbent's prices, and that competition from even a single provider was sufficient to find "effective competition" and warrant the elimination of price regulation.⁹⁵

The *Notice* proposed using an econometric model to analyze how competition affects prices for special access services. Although econometric models can shed some light on the state

⁹⁴ Level 3 McReynolds Decl. ¶ 19; *see id.* ¶ 17 ("Level 3 sometimes adjusts the rates, terms, and conditions on which it offers dedicated services in response to competing offers from competitive LECs. Level 3 has more flexibility to do this in the locations to which Level 3 has deployed last-mile transmission facilities. For example, on November 23, 2015, Level 3 offered a business customer <<<

>>> in order to beat a competing offer from a competitive LEC.").

⁹⁵ *See, e.g., Implementation of Section 3 of the Cable Television Consumer Protection and Competition Act of 1992, Report on Cable Industry Prices, 24 FCC Rcd 259, ¶ 14 (2009)* ("In markets with two competing cable operators, the results show that the incumbent operator charges 14.1 percent less, on average, all other things held constant, than operators charge in markets where a second cable operator is not present. The results also show a tendency for the incumbent operator to undercut the overbuild rival's price rather than simply matching that price."); *Implementation of Section 3 of the Cable Television Consumer Protection and Competition Act of 1992, Report on Cable Industry Prices, 21 FCC Rcd 15087, ¶¶ 14, 17 (2006)* ("Cable prices decrease substantially when a second wireline cable operator enters the market. . . . Prices were 20.6 percent higher in noncompetitive communities compared to prices in communities with a second cable operator; this figure was notably higher than the differential presented in other competitive scenarios."); *Implementation of Section 3 of the Cable Television Consumer Protection and Competition Act of 1992, Report on Cable Industry Prices, 17 FCC Rcd 6301, ¶ 10 (2002)* ("In those areas where a cable operator faces effective competition from a wireline overbuilder (i.e., where a finding of effective competition was based on the LEC test or the wireline portion of the overbuild test), we found that operators tend to offer more channels at a lower rate.").

of the marketplace, they are susceptible to manipulation and other distorting effects, and they are particularly problematic in the context of the high-capacity marketplace because of the manner in which ILECs structure their high-capacity offerings.⁹⁶ Because Verizon and other ILECs structure their discount plans to provide uniform prices across large geographic areas, even where the level of competition may vary across that area, it is difficult to draw conclusions about the state of competition at any given location based on the prices available at that location.⁹⁷ Competitive providers have echoed this same concern in their earlier filings in this proceeding.⁹⁸ In addition, it is difficult to account for the myriad terms and conditions that ILECs and other parties offer through multiple tariffs and contracts, each of which contains a variety of negotiated terms and conditions that reflect numerous trade-offs between Verizon and its customers. An econometric model must attribute economic values to the myriad non-price terms in these agreements and account for the differences among them. It is also critical for any econometric analysis to be fully transparent, so that parties have the opportunity to evaluate its structure to ensure that it does not contain errors that improperly bias the results.

⁹⁶ See Reply Comments of Verizon and Verizon Wireless, WC Docket No. 05-25 & RM-10593, at 12-13 (Mar. 12, 2013); Comments of Verizon, WC Docket No. 05-25 & RM-10593, at 42 (FCC filed Aug. 8, 2007) & Attach. A, Supplemental Declaration of William E. Taylor on Behalf of Verizon ¶¶ 30-33.

⁹⁷ See Declaration of Kevin W. Caves and Jeffrey A. Eisenach ¶¶ 12-14, *attached to* Reply Comments of Verizon and Verizon Wireless, WC Docket No. 05-25 & RM-10593 (Mar. 12, 2013).

⁹⁸ Comments of BT Americas *et al.*, WC Docket No. 05-25 & RM-10593, at 72, 74 (Feb. 11, 2013) (“[i]n theory” the Commission could use a model “to identify the circumstances in which competition disciplines incumbent LEC prices,” the fact that prices are “[u]niform . . . across an incumbent LEC’s territory would make it difficult to rely on panel regressions to support reliable conclusions about the extent to which incumbent LECs are subject to competition in the special access market”); *see also* Comments of Sprint Nextel, WC Docket No. 05-25 & RM-10593, at 11 (Feb. 11, 2013) (“developing an accurate model of prices and competitive investment will require a ‘nuanced’ approach incorporating ‘a variety of factors,’ including the complex relationship between prices and investment”).

III. The Record Demonstrates Intense Competition for Ethernet Services, Not Evidence of a Price Squeeze

There is no evidence supporting some CLEC commenters' claims that Verizon's wholesale Ethernet prices are higher than Verizon's retail prices for the same services. These commenters acknowledge that competition has grown so intense that retail Ethernet prices have fallen significantly in recent years.⁹⁹ They further concede that competition has not only required CLECs to reduce their retail Ethernet prices, but also has led to a reduction in ILEC retail prices for these services.¹⁰⁰ Cable operators are a key driver of this increased competition. Cable operators not only provide intense competition at the retail level, but often provide access to their high-capacity facilities on a wholesale basis as well.¹⁰¹ And while some commenters complain that cable operators do not always provide wholesale access at prices that enable these commenters to compete,¹⁰² the answer is not to single out incumbent LECs for special regulation, but instead to adopt a regime that applies even-handedly and that is targeted at circumstances of market failure where competition cannot adequately protect consumers.

Windstream and some other commenters claim that Ethernet prices have fallen so much that they now face a price squeeze relative to ILEC wholesale prices. As an initial matter, this is not the appropriate proceeding in which to address these claims. The Commission has

⁹⁹ Windstream at 47-48, 55; <<<

>>>; XO at 34-36.

¹⁰⁰ XO Anderson Decl. ¶ 20.

¹⁰¹ Windstream at 19-20; Level 3 *et al.* at 16.

¹⁰² See Windstream Deem *et al.* Decl. ¶¶ 76-77 (“[E]ven where cable is available, fiber last-mile connectivity may not be offered to carrier customers at rates, terms, and conditions that enable it to be a workable option. . . . In Windstream’s experience as a carrier customer, cable companies typically are only willing to build, however, if the wholesale purchaser commits to meet a high revenue threshold, which usually makes this option uneconomic.”).

repeatedly recognized that the appropriate venue to address price-squeeze claims is in a Section 208 complaint proceeding.¹⁰³

But at least as Verizon is concerned, the CLEC commenters provide no evidence supporting a valid price squeeze claim. The Commission has “noted the complexity of proving the existence of a price squeeze, and held that the party alleging a price squeeze bears the burden of proving its allegations and must successfully rebut the business justifications of the opposing party. The Commission also stated that a petitioner’s allegations that it had lost some of its market share were not sufficient to prove that a price squeeze exists. The petitioner must prove that the relationship between wholesale and retail rates is responsible for the price squeeze.”¹⁰⁴ The Commission also has recognized that other “key elements of a price squeeze inquiry” are “input costs, revenues, and internal costs.”¹⁰⁵ The commenters fail to address any of these key elements.¹⁰⁶ Indeed, they do not provide even a single example of an Ethernet service for which

¹⁰³ See, e.g., *Access Charge Reform, Price Cap Performance Review for Local Exchange Carriers*, Fifth Report and Order and Further Notice of Proposed Rulemaking, 14 FCC Rcd 14221, ¶ 131 (1999) (“*Pricing Flexibility Order*”) (“[C]oncerns about a potential price squeeze are best addressed in the context of a complaint filed under section 208 of the Act alleging that a rate charged pursuant to a contract tariff or volume or term discount is unreasonably low and thus violates section 201.”); *Application by SBC Communications Inc., et al., for Authorization To Provide In-Region, InterLATA Services in California*, Memorandum Opinion and Order, 17 FCC Rcd 25650, ¶ 156 & n.562 (2002) (“*SBC InterLATA Services Order*”) (“[T]he appropriate venue for the price squeeze allegation . . . is a complaint under section 208 of the Act.”).

¹⁰⁴ *Joint Application by SBC Communications Inc., et al., for Provision of In-Region, InterLATA Services in Kansas and Oklahoma*, Order on Remand, 18 FCC Rcd 24474, ¶ 7 (2003).

¹⁰⁵ *SBC InterLATA Services Order* ¶ 154.

¹⁰⁶ Windstream concedes that, because Ethernet services are typically sold as a package that includes voice, Internet access, and other services, any gap between wholesale and retail Ethernet rates could “in theory . . . be made up through margins on other services.” Windstream Deem *et al.* Decl. ¶ 93. Although Windstream argues (*id.*) that it “cannot significantly raise rates for these other components without losing customers,” that is irrelevant. The relevant question is whether the margins on these other retail services are sufficient to enable competitors to compete, and Windstream provides no evidence of such margins or a demonstration that they are inadequate.

the retail price that Verizon charges is lower than the wholesale price for that same service, much less evidence that Verizon's retail price was set below cost.¹⁰⁷

The commenters' price-squeeze claims also are at odds with economic logic and the facts of the competitive marketplace. As the Commission has recognized, exclusionary pricing behavior is likely only if a monopolist is likely to succeed in driving actual or potential rivals from the market, which is exceedingly unlikely once facilities-based competitors have entered the marketplace. Even if one competitor exits the market, "[a]nother firm can buy the facilities at a price that reflects expected future earnings and, as long as it can charge a price that covers average variable cost, will be able to compete with the incumbent LEC."¹⁰⁸ Thus, "[i]n telecommunications, where variable costs are a small fraction of total costs, the presence of facilities-based competition with significant sunk investment makes exclusionary pricing behavior costly and highly unlikely to succeed."¹⁰⁹ Here, it is not credible to suggest that ILECs would be able to drive cable operators and other facilities-based providers of Ethernet services from the marketplace. Indeed, facilities-based competitive entry for these services has been increasing, not decreasing, during the period in which CLECs allege they have faced a squeeze.¹¹⁰

¹⁰⁷ *Brooke Grp. Ltd. v. Brown & Williamson Tobacco Corp.*, 509 U.S. 209, 222-24 (1993) (firms may not charge below-costs prices that drive rivals out of the market and allow the monopolist to raise its prices later and recoup its losses); *Atlantic Richfield Co. v. USA Petroleum Co.*, 495 U.S. 328, 340 (1990) ("Low prices benefit consumers regardless of how those prices are set, and so long as they are above predatory levels, they do not threaten competition.").

¹⁰⁸ *Pricing Flexibility Order* ¶ 80.

¹⁰⁹ *Id.*

¹¹⁰ According to Vertical Systems Group, the percentage of buildings with more than 20 employees with fiber increased by 7% from 2013 to 2014 alone. Vertical Systems Group Press Release, *Business Fiber Penetration hits 42.5% in U.S.* (Mar. 31, 2015), <http://www.verticalsystems.com/vsgpr/business-fiber-penetration-hits-42-5-in-u-s/>; Vertical

Windstream claims (at 50) that it “is plainly apparent that ILECs’ wholesale Guidebook rates bear little relationship to real retail prices.” But the only discussion of Verizon it provides to support this broad assertion is (at 50): <<<

>>>. This merely describes the terms of a discount provision; it says nothing about rates of wholesale or retail service. Windstream also argues (at 51) that “some large ILECs . . . charg[e] the carrier customer much more than a comparable retail customer, even when the carrier customer makes significant volume commitments.” Here, too, Windstream fails to support this claim with any Verizon-specific conduct.

Level 3 claims (at 26) that Dr. Baker <<<

>>>. But Dr. Baker does not provide a comparison of Verizon’s retail and wholesale Ethernet prices. He instead compares <<<

>>>.¹¹¹ And Dr. Baker’s analysis is not reliable. Among other things, he admits his underlying data are not complete: “Many PBDS connections were excluded from the data

Systems Group Press Release, *U.S. Business Fiber Gap Narrows in 2013* (Apr. 3, 2014), <http://www.verticalsystems.com/vsgpr/u-s-business-fiber-gap-narrows-in-2013/>; Verizon at 14, Table 1.

¹¹¹ Order on Recon., Data Collection at 3 (defining PBDS as “a Dedicated Service that is packet-based. Examples of PBDS include Multi-Protocol Label Switched (MPLS) services; permanent virtual circuits, virtual private lines and similar services; ATM and Frame Relay service; (Gigabit) Ethernet Services and Metro Ethernet Virtual Connections; and Virtual Private Networks (VPN). PBDS includes those categories of packet-based and optical transmission services for which the Commission has granted forbearance relief from dominant carrier regulation.”).

analysis because they were missing information on important characteristics (such as location or bandwidth) or reported that information inconsistently.”¹¹²

Unable to provide evidence comparing Verizon’s wholesale and retail rates for Ethernet services, Windstream claims (at 53) that a “report from TeleGeography” “confirm[s]” that ILECs “have been able to set Ethernet prices for wholesale purchasers at unjustifiably high levels.” But that report — which as Windstream acknowledges (at 53) shows the U.S. having “some of the lowest prices worldwide for DS1s” — also is irrelevant to claims of a price squeeze. Differences in Ethernet rates across different countries says nothing about the alleged spread between retail and wholesale Ethernet rates in the U.S. Similarly, that Windstream may be <<<

>>> (Windstream at 54), is

irrelevant; this is equally explained by Windstream <<<

>>>.¹¹³

For all of these reasons, there is no legal or factual basis for some commenters’ proposals that the Commission adopt a rule that wholesale rates never exceed retail rates.¹¹⁴ As a matter of economics and antitrust law, even where wholesale rates do exceed retail rates it does not necessarily demonstrate an anticompetitive price squeeze, but instead just prompts further inquiry into the justifications for such pricing.¹¹⁵ Thus, even if the Commission were to find

¹¹² Baker Decl. ¶ 38 n.32.

¹¹³ According to Verizon’s data, <<<

>>>.

¹¹⁴ Windstream at 60; Level 3 *et al.* at 9, 67; XO at 55-57; TDS Metrocom at 11-12.

¹¹⁵ *See, e.g., Town of Concord v. Boston Edison Co.*, 915 F.2d 17, 23 (1st Cir. 1990) (That a price squeeze may eliminate rivals’ margins does not mean that it harms *competition* in the relevant sense); 3A Phillip E. Areeda & Herbert Hovenkamp, *Antitrust Law* ¶ 756b, at 11 (2d ed.

evidence of little or no gap between retail and wholesale rates, it would still need to conduct a more searching inquiry to determine whether that gap is justified due to costs, competition, or other legitimate reasons. For the same reason, the Commission should reject the request that the Commission ensure that ILEC wholesale rates should account for avoided costs when sold on a wholesale basis.¹¹⁶ The record does not contain information about avoided costs, much less facts to support such price regulation.

IV. The Commission Should Further Reduce Regulation of ILEC Special Access Services

The commenters seek various remedies designed to unfairly disadvantage incumbent LECs. These remedies not only rest on finding that the incumbent LECs have market power, which the facts do not support, they also fail for many other reasons.

A. The Commission Cannot and Should Not “Reverse” Forbearance of Ethernet and Other Packet-Switched Business Broadband Services

The Commission should reject calls to reverse the decade-old forbearance and re-impose regulations on ILEC Ethernet and other packet-switched business broadband services. The Commission’s successful decisions to forbear from regulating these services paved the way for the marketplace for Ethernet and other high-capacity broadband services to become increasingly competitive over the years. And that trend has continued and accelerated since 2013.¹¹⁷

2002) (“Even when a monopolist at one essential stage ‘monopolizes’ a second stage, consumer harm cannot be inferred and is difficult to identify.”).

¹¹⁶ Windstream at 68-73.

¹¹⁷ Level 3 *et al.* argue (at 65-66) that the Commission should impose price caps on all dedicated services and “reduce the PCI for the special access basket to a level that ensures reasonable prices.” *See also* Sprint at 80. Level 3 *et al.* claim (at 66) that the Commission can justify this because incumbent LECs “have experienced and continued to experience, a windfall” due to productivity gains that have surpassed the economy as a whole and which the X-factor have failed to capture. Level 3 provides no evidence of such a “windfall.” Nor can the Commission

The Commission cannot simply “reverse” a forbearance grant,¹¹⁸ despite what some commenters claim.¹¹⁹ Section 10 of the Communications Act does not contemplate a petition to “reverse” forbearance, and the deadlines to seek reconsideration of the forbearance grants have long since passed. Those forbearance grants are final and unreviewable, and those that were timely appealed were upheld by the D.C. Circuit.¹²⁰ Thus, the Commission could re-regulate enterprise broadband services only by first satisfying the rulemaking requirements of the Communications Act and the Administrative Procedure Act (“APA”). It would have to conduct a notice-and-comment proceeding and develop a record based on current marketplace facts, including the significant competitive developments that have occurred since 2013.¹²¹

This proceeding is not a proper forum to revisit the forbearance grants. The *Notice* focuses on changes to the Commission’s existing rules for TDM-based special access services. It does not propose changes to the regulatory status of services that were subject to earlier grants of forbearance, but instead states that those forbearance grants “narrowed considerably” the

simply make assumptions about productivity gains without careful study, for which data have not even been collected. In all events, Level 3’s proposal to reimpose a regulatory regime crafted decades ago for the monopoly era runs contrary to the Act and decades of precedent recognizing that as competition increases, price regulation is both unnecessary and counter-productive.

¹¹⁸ Petition of Ad Hoc Telecommunications Users Committee, BT Americas, Cbeyond, Computer & Communications Industry Association, EarthLink, Megapath, Sprint Nextel, and tw telecom To Reverse Forbearance from Dominant Carrier Regulation of Incumbent LECs’ Non-TDM-Based Special Access Services, WC Docket No. 05-25 & RM-10593 (FCC filed Nov. 2, 2012).

¹¹⁹ See *Windstream* at 88-91; *Sprint* at 86; Ad Hoc Telecommunications Users Committee at 13.

¹²⁰ See *Ad Hoc Telecomms. Users Comm. v. FCC*, 572 F.3d 903 (D.C. Cir. 2009); *Sprint Nextel Corp. v. FCC*, 508 F.3d 1129, 1132 (D.C. Cir. 2007).

¹²¹ See Letter from Curtis L. Groves, Verizon, to Marlene H. Dortch, FCC, WC Docket No. 05-25 & RM-10593, at 1, 7-8 (Sept. 24, 2015).

scope of this proceeding.¹²² Nowhere does the *Notice* propose re-imposing regulation on forborne services.

The parties seeking to reverse forbearance also fail to meet their burden of demonstrating that additional business broadband regulation is necessary to further the Communications Act’s goals.¹²³ At a minimum, parties seeking new regulation bear the burden of proving that at least one of Section 10(c)’s forbearance criteria is no longer met. They must show that there is a market failure such that market forces will not keep prices down — precisely the showing required when the Commission promulgates new regulations, whether in response to a petition or on its own motion. The facts and record — including both the data the Commission already collected and developments in the marketplace since 2013 — cannot support a finding that any of these forbearance criteria no longer are met. Nor can the record support regulating only ILEC Ethernet services — but not cable and other providers’ services competing for the same business customers — which would give those other providers an unfair advantage and would deter competition and constrain investment incentives to the detriment of customers who benefit from the many high-capacity broadband services cable and others offer.

Finally, several commenters improperly attempt to narrow the scope of the forbearance relief that Verizon received.¹²⁴ Verizon’s petition sought forbearance for “all broadband services that [it] does *or may* offer,” which Verizon later clarified as covering two “*categories* of

¹²² *Notice* ¶ 9.

¹²³ See 5 U.S.C. § 556(d) (“Except as otherwise provided by statute, the proponent of a rule or order has the burden of proof.”); *Hazardous Waste Treatment Council v. EPA*, 886 F.2d 355, 366 (D.C. Cir. 1989).

¹²⁴ See *Windstream* at 92-97; *Level 3 et al.* at 58-59; *INCOMPAS* at 14-15; *TDS Metrocom* at 10.

services.”¹²⁵ Verizon’s petition was not limited to its then current services. Windstream (at 93) cites a footnote in the *AT&T Broadband Forbearance Order* for the proposition that Verizon’s forbearance is limited to the services Verizon provided at the time it received forbearance, but that footnote has no legal bearing on the scope of Verizon’s forbearance. Because the Commission did not issue an order on Verizon’s forbearance petition before the statutory deadline, it was foreclosed from later issuing an order denying any of the relief Verizon sought. Nor can the Commission conform the scope of Verizon’s deemed-granted forbearance to those of the other ILECs that received forbearance relief through Commission orders without satisfying the same Communications Act and APA requirements described above.

Windstream’s attempt to narrow Verizon’s forbearance relief also fails on the facts. When Verizon introduced new business broadband services it did so in the face of competition for these services. Verizon had no market power for these new services, which are the types of service most likely to face head-to-head competition from other providers, especially cable. It has been a decade since Verizon received forbearance relief, and in that time competition and innovation have thrived. There are no signs of market failure or other problems that justify reversing this relief or imposing one-sided regulations on Verizon’s business broadband services.

Windstream also argues (at 95-96) that Verizon’s forbearance relief does not include special construction for Ethernet services, which Windstream claims is not a common-carrier service. Windstream is wrong.¹²⁶ Although Verizon has a standalone tariff for special

¹²⁵ Petition of the Verizon Telephone Companies for Forbearance, WC Docket No. 04-440, at 1-2 (FCC filed Dec. 20, 2004) (emphasis added); Letter from Edward Shakin, Verizon, to Marlene Dortch, FCC, WC Docket No. 04-440, at 2-3 (FCC filed Feb. 7, 2006) (emphasis added).

¹²⁶ Windstream claims (Deem *et al.* Decl. ¶ 101) that Verizon imposes special construction charges more frequently than other ILECs and that the total amount it pays for such charges each

construction, that is irrelevant.¹²⁷ Whether a service is a common-carrier or private-carrier service turns on the specifics of how a service is offered, not on the mere existence of a filed tariff.¹²⁸ Tariffs also are filed for services offered on an individual case basis, which are considered private-carrier services.¹²⁹ The D.C. Circuit held in *Southwestern Bell v. FCC* that it would be improper for the Commission “simply to deduce from the filing of any service contract that the service had been offered on a common carrier basis.”¹³⁰ There, the Commission had held dark-fiber services offered on an individual-case basis, even when offered by a common carrier who files tariffs setting forth the terms of those individual-case-basis offerings, were properly classified as private-carrier offerings, not common-carrier services.

Further, the Commission has not found special construction is a common-carrier service, as Windstream has argued.¹³¹ Windstream’s sole authority for this claim is the *1984 Special*

year is increasing. But neither of these facts, even if true, indicates that Verizon is improperly assessing special construction. Both can be explained by Windstream’s increasing requests for service at locations in Verizon’s ILEC footprint where the requested facilities are unavailable. *See Verizon Special Construction Tariff FCC No. 21, Section 2.6.2, <https://www.verizon.com/tariffs/PDFViewer.aspx?doc=183315> (special construction applies in circumstances where “facilities are not available to meet an order for service”).* Tellingly, Windstream does not allege a single example of where it believes Verizon assessed a special construction charge improperly.

¹²⁷ *See* Windstream at 97.

¹²⁸ *National Ass’n of Regulatory Util. Comm’rs v. FCC*, 525 F.2d 630, 642 (D.C. Cir. 1979).

¹²⁹ 47 U.S.C. § 211(b). *See Policy and Rules Concerning Rates for Dominant Carriers*, Second Report and Order, 5 FCC Rcd 6786, ¶ 193 (1990) (“ICB offerings are those offered on a contract-type basis. While ICB offerings appear in LEC tariffs, they are not tariffed as generally-available, common carrier services.”).

¹³⁰ *Southwestern Bell Tel. Co. v. FCC*, 19 F.3d 1475, 1483 (D.C. Cir. 1994).

¹³¹ *See* Windstream at 96.

Construction Notice of Proposed Rulemaking.¹³² But the very purpose of that NPRM was to consider this question. And as Windstream concedes,¹³³ the Commission tentatively concluded there that special construction *was not and should not* be classified as a common-carrier service.¹³⁴ The Commission explained there is no “legal compulsion for a carrier to provide special activities to the public indifferently under the Communications Act or [the FCC’s] regulatory policies.”¹³⁵ It further explained special construction bore all the hallmarks of a private-carrier service, not a common-carrier service.

It also is irrelevant that Verizon’s forbearance petition and subsequent clarifications and the other ILECs’ forbearance petitions did not specifically mention that “special construction” was included in the relief sought. Verizon was granted relief from the common-carrier obligations of Sections 201 and 202 for its Ethernet services, and once that relief was granted Verizon no longer was under any duty to furnish Ethernet service at locations where it does not have its own facilities. Thus, the relief that Verizon received necessarily subsumed special construction of Ethernet service at locations where Verizon did not have facilities.

¹³² *Special Construction of Lines and Special Service Arrangements Provided by Common Carriers*, Notice of Proposed Rulemaking, 97 FCC 2d 978 (1984) (“*1984 Special Construction NPRM*”).

¹³³ See Windstream at 96 n.307.

¹³⁴ See *1984 Special Construction NPRM* ¶ 16 (“[W]e propose to find that the nature of most offerings of special construction and special service arrangements does not cause us to expect an indifferent holding out to the eligible user public.”); *id.* ¶ 20 (“We propose to treat as non-common carriage only extraordinary, customer-requested, individually-tailored construction and services, not offerings which are or should be general.”).

¹³⁵ *Id.* ¶ 5.

B. The Commission Cannot and Should Not Reverse Its Precedent and Change Its Rules Related to Unbundled Access to Fiber Loops

Windstream's claim that ILECs must provide unbundled access to DS1 and DS3 fiber loops misreads Commission and court precedent,¹³⁶ and it is more appropriately addressed in the separate proceeding in which Windstream filed a petition on this issue. The Commission's 2004 *Reconsideration Order*, which Windstream continues to ignore, found that the unbundling rules do not require ILECs to build TDM capabilities into their packet-switched networks or to add those capabilities into networks that do not already have them in order to satisfy a CLEC's request for unbundled network elements.¹³⁷

In a series of decisions from 2003 through 2005, the Commission adopted unbundling rules distinguishing between fiber-to-the-premises (FTTP) and other loops and between packet-switched and TDM networks. The Commission eliminated all unbundling obligations for fiber loops "serving an end user's customer premises," except for the obligation — which the Commission recently decided to forbear from applying¹³⁸ — to unbundle a 64 kbps narrowband voice-grade channel in brownfield areas after the copper loop previously serving that premises has been retired.¹³⁹ The Commission's current rules state clearly that there are no unbundling

¹³⁶ Windstream's Declaratory Ruling Petition, WC Docket No 15-1 and GN Docket No. 13-5 (Dec. 29, 2014) ("Windstream Petition").

¹³⁷ See *Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers; Implementation of the Local Competition Provisions of the Telecommunications Act of 1996; Deployment of Wireline Services Offering Advanced Telecommunications Capability*, Order on Reconsideration, 19 FCC Rcd 20293, ¶¶ 20-21 (2004) ("*Reconsideration Order*").

¹³⁸ *Petition of USTelecom for Forbearance Pursuant to 47 U.S.C. § 160(c) from Enforcement of Obsolete ILEC Legacy Regulations that Inhibit Deployment of Next-Generation Networks*, Memorandum Opinion and Order, WC Docket Nos. 14-192, 11-42 & 10-90, FCC 15-166 (rel. Dec. 28, 2015).

¹³⁹ 47 C.F.R. § 51.319(a)(3).

obligations for the packet-switched capabilities of loops.¹⁴⁰ And two courts of appeals have held that the Commission’s rules apply to all customers and, therefore, ILECs have no obligation to unbundle DS1 or DS3 FTTP loops.¹⁴¹

The Commission’s holding in the *Reconsideration Order* that ILECs “are not obligated to build TDM capability into new packet-based networks or into existing packet-based networks that never had TDM capability” so that they can then unbundle TDM network elements, such as DS1 or DS3 loops, is particularly relevant here.¹⁴² That limitation follows directly from the statute, which “requires unbundled access only to an incumbent LEC’s *existing* network — not to a yet unbuilt superior one.”¹⁴³ The Commission explained that it reached this decision because its “rule[] addressing routine network modifications” in the context of unbundling — that is, the rule that requires ILECs to make certain, limited modifications to their networks to add equipment necessary for the ILEC to fulfill a CLEC’s orders for unbundled network elements — “do[es] not apply to FTT[P] loops.”¹⁴⁴

¹⁴⁰ *See id.* § 51.319(a)(1), (a)(2)(i).

¹⁴¹ *See Illinois Bell Tel. Co. v. Box*, 526 F.3d 1069, 1073 (7th Cir. 2008) (finding that 47 C.F.R. § 51.319(a)(3) “as written is unqualified” and “says that ILECs need not furnish optical-fiber local loops as unbundled network elements,” with “[n]othing turn[ing] on the customer’s identity”); *BellSouth Telecomms., Inc. v. Kentucky Pub. Serv. Comm’n*, 669 F.3d 704, 710-12 (6th Cir. 2012) (finding that “the DS1/DS3 [loop unbundling] regulations . . . yield to” the exclusion of FTTP loops from unbundling in § 51.319(a)(3) and that ILECs “need not offer unbundled access to DS1 and DS3 loops” over FTTP loops).

¹⁴² *Reconsideration Order* ¶ 20.

¹⁴³ *Iowa Utils. Bd. v. FCC*, 120 F.3d 753, 813 (8th Cir. 1997), *aff’d in part, rev’d in part sub nom. AT&T Corp. v. Iowa Utils. Bd.*, 525 U.S. 366 (1999); *see id.* at 812 (finding that the “plain terms of the Act” do “not require incumbent LECs to provide [their] competitors with superior quality interconnection”).

¹⁴⁴ *Reconsideration Order* ¶ 20 n.69.

The Commission clarified further that an ILEC's use of TDM equipment to provide TDM services over fiber in order to maintain compatibility with a customer's existing TDM equipment "does not change the scope of the Commission's unbundling relief."¹⁴⁵ In doing so, the Commission specifically granted a clarification that Verizon requested. As Verizon explained:

[E]ven when carriers deploy new packet-based networks, including fiber-to-the-premises networks, it will continue to be necessary in many instances to hand off a signal to end-user customers in TDM format. For example, small business customers may have made a substantial investment in customer premises equipment that is not directly compatible with the new packetized networks. In these circumstances, it may be necessary to hand off a signal to the customer in TDM format rather than put the customer to the expense of investing in all new customer premises equipment.¹⁴⁶

Verizon, therefore, asked the Commission to "make clear that incumbent LECs need not unbundle their next-generation networks regardless of whether they employ TDM interfaces to make their new network facilities backward-compatible with customers' existing equipment."¹⁴⁷ The Commission agreed and its clarification applies to the "'TDM handoff'" that is "described . . . in Verizon's ex parte."¹⁴⁸

The *Reconsideration Order* that Windstream ignores refutes Windstream's claim that ILECs must continue to unbundle DS1 and DS3 loops over their next-generation networks that lack TDM capabilities and that are not being used to offer these services to ILEC customers.¹⁴⁹

¹⁴⁵ *Id.* ¶ 21.

¹⁴⁶ Ex Parte Letter from Dee May, Verizon, to Marlene H. Dortch, FCC, *Review of Section 251 Unbundling Obligations of ILECs; Unbundled Access of Network Elements*, CC Docket No. 01-338 & WC Docket No. 04-313, at 2 (Oct. 7, 2004) (cited in *Reconsideration Order* ¶ 21 n.70).

¹⁴⁷ *Id.*

¹⁴⁸ *Reconsideration Order* ¶ 21.

¹⁴⁹ See Windstream Petition at 13-15.

DS1 and DS3 are well-defined TDM standards, set by industry standard-setting bodies.¹⁵⁰ As the Commission has recognized, DS1 and DS3 are “T-carrier systems” that “use pulse code modulation and *time division multiplexing*.”¹⁵¹ Where an ILEC’s packet-switched network has no TDM capabilities — or has those capabilities solely to enable the kinds of TDM handoffs discussed above — there is no obligation to unbundle that packet-switched network.

The Commission could not now declare that ILECs have an obligation to add TDM capabilities to their packet-switched networks in order to continue to unbundle DS1 or DS3 loops. The Commission could not reinterpret its routine network modification rule to require ILECs to deploy TDM equipment to their packet-switched networks, because there is no evidence that ILECs routinely add TDM capabilities to those networks for their retail customers.¹⁵² Nor could the Commission amend its rules to impose new unbundling obligations on packet-switched networks without first making an impairment finding based on substantial evidence in a new record. No such finding could be supported and, moreover, imposing such unbundling obligations would be inconsistent with congressional policy as set forth in Sections

¹⁵⁰ See, e.g., ATIS, Digital Hierarchy – Formats and Specifications, ATIS-0600107.2002(R2011), §§ 5.1, 5.2.2, 6, 9 (containing specifications for the use of the “time reference in the bit stream,” of “channel time slots” for transmitting information, and the specific standardized “frame structures” for DS1 and DS3 digital signals).

¹⁵¹ *Local Telephone Competition and Broadband Reporting*, Report and Order, 19 FCC Rcd 22340, ¶ 15 n.34 (2004) (emphasis added); see also Public Safety and Homeland Security Bureau, FCC, *Impact of the June 2012 Derecho on Communications Networks and Services: Report and Recommendations* at 8 n.20 (Jan. 10, 2013), https://apps.fcc.gov/edocs_public/attachmatch/DOC-318331A1.pdf (explaining that a DS3 line “is a digital signal level 3 T-carrier”).

¹⁵² See *United States Telecom Ass’n v. FCC*, 359 F.3d 554, 578 (D.C. Cir. 2004) (upholding the Commission’s routine network modification rule because it adhered to the “clear and reasonable limiting principle” that the only modifications required are those “the ILEC routinely performs, on demand, for its own customers”).

230 and 706 and more than a decade of Commission decisions refusing to require the unbundling of packet-switched networks.

Finally, despite Windstream’s assertions that continued DS1 and DS3 loop unbundling is necessary for small and medium business customers,¹⁵³ those customers have been — and continue to be — voluntarily migrating to superior carrier Ethernet services.

V. Competition Constrains ILEC Terms and Conditions

The Commission sought data on ILEC terms and conditions “[t]o more fully understand competition in the special access market.”¹⁵⁴ The data responses show that term and volume discounts are common throughout the business broadband marketplace; that some competitors enter into agreements that contain what the Commission has labeled a “Prior Purchase-Based Commitment,” where the volume specified in the agreement is agreed upon based on historical purchasing levels; and that the business justifications that competitors give for offering term and volume discounts are the same justifications underlying Verizon’s own discount plans, which further demonstrates that marketplace terms and conditions for all providers are driven by the same competitive forces.¹⁵⁵

The Commission more recently opened a separate proceeding focused exclusively on the terms and conditions of high-capacity offerings on which the Commission collected data here.¹⁵⁶ The Commission has also adopted a protective order that permits material in this proceeding to be used in the tariff investigation.¹⁵⁷ Now that the Commission has commenced its investigation, the tariff proceeding is an appropriate forum in which to address allegations that ILEC tariffs are

¹⁵³ See Windstream Petition at 7-10, 15-19.

¹⁵⁴ Notice ¶ 91.

¹⁵⁵ Verizon at 63-67.

unjust and unreasonable. Verizon plans to address specific claims regarding its terms and conditions in the tariff investigation proceeding, and those forthcoming responses will be incorporated into the record here.

¹⁵⁶ See *Investigation of Certain Price Cap Local Exchange Carrier Business Data Services Tariff Pricing Plans*, Order Initiating Investigation and Designating Issues for Investigation, 30 FCC Rcd 11417 (2015).

¹⁵⁷ *Investigation of Certain Price Cap Local Exchange Carrier Business Data Services Tariff Pricing Plans*, Order and Protective Order, WC Docket Nos. 15-247 & 05-25, RM-10593, DA 15-1387 (rel. Dec. 4, 2015).

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