

# LEGISLATIVE BUDGET AND FINANCE COMMITTEE

A JOINT COMMITTEE OF THE PENNSYLVANIA GENERAL ASSEMBLY

## Pennsylvania ILEC Broadband Deployment Mandates

June 2020



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# REPORT SUMMARY



## Objectives and Scope

*Our objectives for this report on incumbent local exchange carriers (ILECs) broadband high-speed Internet service deployment mandates are as follows:*

- ❖ *Determine whether ILECs have fulfilled their commitments under Chapter 30 to accelerate broadband availability at the minimum download/upload speeds of 1.544 Mbps/128Kbps to 100 percent of their total access lines in their distribution network by the selected deadline (i.e., December 31, 2008, 2013, or 2015).*
- ❖ *Analyze the efforts by the Pennsylvania Public Utility Commission and the Department of Community and Economic Development regarding compliance and administration of the bona fide retail request (BFRR) program.*
- ❖ *Examine joint venture arrangements under approved network modernization plans for compliance with Chapter 30.*
- ❖ *Examine the actions taken by the PUC under section 3015(a)(2) of Chapter 30 regarding the imposition of customer refunds related to ensuring ILECs' compliance with their interim and final 100% commitments for broadband availability and/or the imposition of Chapter 33 civil penalties on ILECs.*

## Pennsylvania ILEC Broadband Deployment Mandates

Our report, generated in response to Senate Resolution 2019-48 (SR 2019-48), determined that incumbent local exchange carriers (ILECs) fulfilled their commitments under Chapter 30, an alternative form of the regulation of telecommunications services, of the Pennsylvania Public Utility Code. Chapter 30 required ILECs to accelerate broadband availability at the minimum download/upload speeds of 1.544 Mbps/128 Kbps in a balanced manner throughout rural, suburban, and urban areas. Broadband was to be made available to 100 percent of their total access lines in their distribution networks by the corresponding deadline imposed and pursuant to the broadband deployment option selected by each ILEC (i.e., December 31, 2008, December 31, 2013, and December 31, 2015).

Our analysis determined the Pennsylvania Public Utility Commission (PUC) and the Department of Community and Economic Development (DCED) oversaw the successful administration of the bona fide retail request (BFRR) program by the four ILECs required to implement the program. This program allowed customers to obtain advanced services sooner than the mandated deadline for making broadband services available. Our examination further determined that four ILECs appropriately used joint venture arrangements, in limited instances, to meet their broadband deployment mandates.

Our examination also determined the PUC imposed no customer refunds under section 3015(a)(2) of Chapter 30, nor did it impose any Chapter 33 civil penalties on ILECs.

**Section II** of this report presents the general history of Chapter 30 in the Pennsylvania Public Utility Code and reflects Commonwealth of Pennsylvania policy concerning the delivery of protected services/basic universal services (i.e., residential and business consumer service necessary to complete a local exchange call; touch-tone service; switched access service; special access services; and the ordering, installation, restoration, and disconnection of these services; unless the PUC has determined such service to be competitive), it also covers nonprotected services, noncompetitive and competitive telecommunication services throughout Pennsylvania that are meant to reinforce the Commonwealth's commitment to universal telephone service and the desire to balance mandated deploy-

ment of broadband services with market driven deployment of broadband. Chapter 30 specifically reflects that broadband service is considered to be of vital importance to Pennsylvania's rural, suburban, and urban communities.

**Act 1993-67 (Original Chapter 30)**. In July 1993, in recognition of the transition of the telecommunications industry, the General Assembly amended the Pennsylvania Public Utility Code and enacted Chapter 30 legislation pursuant to Act 1993-67. The act provided for alternative forms of regulations of in-state telecommunication services provided by ILECs - local telephone companies. In 1999, the PUC noted that Chapter 30 requirements only applied to ILECs and it could not require competitive local exchange carriers (a carrier certified by the PUC after 1993) to implement Chapter 30 network modernization plan (NMP) requirements, as the federal Telecommunications Act of 1996 (TA-1996) preempted state laws and regulations that created a barrier to competition; key requirements of Chapter 30 could be viewed as such a barrier. The "accelerated telecommunications infrastructure modernization" provision allowed ILECs to voluntarily submit plans to accelerate deployment of technology and to have a fully deployed broadband capable telecommunication infrastructure in place by 2015, in exchange for the PUC's use of reduced alternative forms of regulation, and the authorization of ILECs to be removed from earning based regulation.

**Act 2004-183 (Amended Chapter 30)**. An amended version of Chapter 30 was reauthorized by the enactment of Act 2004-183. It reflected the telecommunications industry's accelerated pace of evolution by providing ILECs with the ability to amend their respective NMPs to further accelerate broadband deployment, in exchange for additional economic incentives and less PUC regulation as follows:

- Elimination/reduction of inflation offset in annual rate adjustments for noncompetitive services (versus the original Chapter 30 productivity offset range of 2 percent to 2.93 percent),
- Limitations on PUC reporting requirements, and
- Streamlined procedures for competitive service declarations.

Chapter 30, as amended, provided ILECs with three options to further accelerate a 100 percent broadband deployment as follows (dates in bold-face are the dates selected by the ILECs):

- **Option 1 – Rural ILEC (RLEC)** may commit to **100 percent** of broadband availability by **December 31, 2008**,
- **Option 2 – RLEC** may commit to **80 percent** of broadband availability by **December 31, 2010** and **100 percent by December 31, 2013** or December 31, 2015 plus establish a Bona Fide Retail Request (BFRR) program and Business Attraction and Retention (BAR) program, and

- **Option 3 – Nonrural ILEC** may commit to **100 percent** by December 31, 2013 or **December 31, 2015** plus establish BFRR program and BAR program.

The term “broadband” Internet service commonly refers to high-speed Internet access that is always on and is faster than the traditional dial-up access, and includes several types of high-speed connections/transmission technologies (e.g., digital subscriber line (DSL), cable modem, fiber, wireless via radio link, satellite (wireless), and broadband over powerlines (BPL). Chapter 30 specifically defines the term “broadband” as follows:

*“Broadband.” A communication channel using any technology and having a bandwidth equal to or greater than 1.544 megabits per second (Mbps) in the downstream direction and equal to or greater than 128 kilobits per second in the upstream direction.*

**Section III** provides an overview of Pennsylvania ILECs’ fulfillment of their commitments under amended Chapter 30, alternative form regulation of telecommunication services. Chapter 30 requires ILECs to provide a broadband network (high-speed Internet at minimum download/upload speeds of 1.544 Mbps/128 Kbps) to 100 percent of their total access lines in their distribution networks allowing the customer/end-user to have access within ten business days of a customer’s request, but no later than December 31, 2015.

As stated in the act, Commonwealth policy seeks to:

*Strike a balance between mandated deployment and market-driven deployment of broadband facilities and advanced services throughout this Commonwealth ....*

Chapter 30 provisions also encourage a reasonably balanced deployment of broadband networks between rural, urban, and suburban areas.

The provisions of Chapter 30 are only applicable to Pennsylvania ILECs certified by the PUC and subject to its oversight, versus other broadband providers (e.g., cable, wireless via radio link, satellite (wireless), etc.).

Following the initial enactment of Chapter 30 in 1993, Pennsylvania had 38 ILECs, versus 37 ILECs when Chapter 30 was amended and re-enacted in 2004. Pennsylvania continues to list 37 ILECs and the PUC continues to individually certify the 37 ILECs.

We found that, as required by law, the ILECs filed amended network modernization plans (NMP) and NMP biennial reports with the PUC. Our review confirmed the reports were filed by each ILEC and reflected each ILEC met its 100 percent broadband availability commitment in a timely

manner. The NMP biennial reports were filed by ILECs under oath, to affirm the ILECs had satisfied their broadband mandatory deployment commitments.

PUC staff review of NMP biennial reports was subject to both peer review and standard chain-of-command review (staff person --> supervisor --> manager --> bureau director). Using data from each of the biennial reports entered into tracking files, the PUC developed metrics to monitor the progress being made towards the various milestones and availability dates committed to by the respective ILECs. Any anomalies or inconsistencies were addressed with the respective ILEC and resulted in the submission of numerous revised reports.

The PUC also conducted one audit of the largest Pennsylvania ILEC (Verizon PA) as authorized by Chapter 30. It was an external audit conducted in 2007 by a private consultant, which found Verizon PA met its NMP commitments through 2006.

As required by Chapter 30, DCED published and continues to publish an inventory and maps of Pennsylvania advanced and broadband services on its website.

The PUC affirmed, in both its tentative and final orders in response to a Joint Petition (Ebersole and Pennsylvania Office of Consumer Advocate POCA) filed with regard to Verizon PA that Chapter 30, alternative form regulation of telecommunication services, only required Pennsylvania ILECs to provide access to broadband at a minimum speed of 1.544 Mbps/128 Kbps and that the ILECs could use any broadband technology to do so. The PUC noted the law does not authorize the PUC to require an ILEC to deploy a specific type of broadband service, deploy a specific technology, set a specific price for retail broadband access service, or prohibit an ILEC from using a joint venture to provide its retail access service.

The statutory goals and regulatory authority of Chapter 30 established pursuant to Act 2004-183 in relation to broadband deployment were essentially fulfilled upon reaching the stated final deployment date of December 31, 2015. The PUC continues to have some limited ongoing regulatory authority in relation to certain other provisions (e.g., sections 3016(b) declaration of retail nonprotected services as competitive, 3016(c) reclassification of services from competitive to noncompetitive, 3016(f) prohibition against using revenues or expenses from noncompetitive services to subsidize competitive services, etc.).

Additional statutory authority would be needed to enhance broadband deployment or existing download/upload speeds, or to extend broadband deployment mandates to other providers of wireless broadband (e.g., cable, wireless via radio link, satellite (wireless), etc.).



**Section IV** analyzes the efforts by the Pennsylvania Public Utility Commission (PUC) and the Department of Community and Economic Development (DCED) regarding compliance and administration of the bona fide retail request (BFRR) program.

The intent of a BFRR program was to aggregate and make advanced services available in areas where sufficient market demand existed and to supplement existing network modernization plans prior to each ILEC's respective 100 percent broadband availability commitment. Chapter 30 required ILECs that chose options 2 or 3 to implement BFRR programs in areas where they did not otherwise offer broadband service, within 90 days of the effective date of their amended network modernization plans (NMP). Four ILECs were required to establish BFRR programs – Verizon PA and Verizon North, Pennsylvania's two nonrural ILECs that chose Option 3; and Windstream PA and CenturyLink, two rural ILECs that chose Option 2.

BFRR programs allowed ILEC customers to obtain advanced services sooner than they may have otherwise received them in their respective communities. End-users eligible to make a bona fide retail request included individuals, businesses, local development districts, industrial development agencies, or any other entity seeking advanced services. By submitting a BFRR request, customers were committing to subscribe to the requested service for one year.

The PUC and DCED oversaw the successful administration of the BFRR program. The PUC partnered with DCED, POCA, and the affected ILECs on the implementation, monitoring, and promotion of BFRR programs.

**Section V** examines joint venture arrangements under approved network modernization plans (NMP) for compliance with Chapter 30. Joint venture agreements are encouraged between ILECs and other entities where such agreements accelerated, improved, or otherwise assisted ILECs in implementing their NMPs. Chapter 30 expressly stated that nothing in its provisions prohibited an ILEC from participating in joint ventures with other entities for the purpose of meeting its advanced services and broadband deployment commitments under its NMP.

Joint venture arrangements were entered into between four ILECs: Verizon PA, Verizon North, CenturyLink, and Windstream PA, with providers of wireless via radio link and satellite (wireless) broadband services. These joint ventures allowed the ILECs to extend broadband services, as a last resort, to areas where they did not otherwise offer wireline broadband services.

We confirmed that joint venture agreements were undertaken by the following:

- Windstream PA with DISH Network.
- Century Link with Verizon Wireless.
- Century Link with HughesNet.
- Verizon PA/Verizon North with Verizon Wireless.
- Verizon PA/Verizon North with HughesNet.

**Section VI** examines the authority and related actions taken by the PUC under section 3015(a)(2) of Chapter 30, related to ILECs' compliance with their interim and final 100 percent commitments for broadband availability in their amended NMPs. It also examined Chapter 33 actions related to violations and penalties associated with any violations of Chapter 30, relating to a bona fide retail request (BFRR) program [ §§ 3014(b)(3)(ii)(B) and (c)]; a balanced deployment of broadband networks [ § 3014(k)]; re-classification of a business activity between competitive and noncompetitive [ § 3016(c)]; and prohibitions from using revenues or expenses from noncompetitive services to subsidize competitive services [ § 3016(f)].

Chapter 30 authorized the PUC to mandate customer refunds in the event an ILEC failed to meet its 100 percent broadband commitment, and Chapter 33 dictated certain civil penalties for various violations.

No customer refunds were mandated, nor were any civil penalties imposed by the PUC as no complaints warranted such actions. In general, customer issues related to broadband concerned reliability or price, neither of which was subject to PUC oversight.

# SECTION I

## OBJECTIVES, SCOPE, AND METHODOLOGY



### *Why we conducted this study...*

- ❖ *Senate Resolution 2019-48 directed the Legislative Budget and Finance Committee to conduct a review and provide a report on the broadband deployment mandates under Chapter 30 of the Public Utility Code.*
- ❖ *On July 30, 2019, the LBFC Officers adopted this project pursuant to Senate Resolution 2019-48.*

### Objectives

Senate Resolution 2019-48 (SR 2019-48) directs the Legislative Budget and Finance Committee (LBFC) to conduct a review and issue a report of its findings regarding the compliance of incumbent local exchange carriers (ILEC)/telecommunication carriers with broadband high-speed Internet service deployment mandates under Chapter 30 of the Public Utility Code in relation to the following:<sup>1</sup>

1. Determine whether telecommunications carriers have fulfilled their commitments under 66 Pa.C.S. Ch. 30, Alternative Form of Regulation of Telecommunication Services, to accelerate broadband availability to 100 percent of their total retail access lines in their distribution networks by December 31, 2015.
2. Analyze efforts by the Public Utility Commission (PUC) and the Department of Community and Economic Development (DCED) regarding compliance and administration of bona fide retail request (BFRR) programs under 66 Pa.C.S. § 3014(c).
3. Examine joint venture arrangements under approved network modernization plans (NMPs) for compliance with 66 Pa.C.S. Ch. 30, and analyze the impact of joint venture arrangements on the quality and affordability of the service provided.
4. Examine actions taken by the PUC under 66 Pa.C.S. § 3015(a)(2), related to companies' compliance with their interim and final 100 percent commitments for broadband availability in their amended NMPs; 66 Pa.C.S. Ch. 33, Violations and Penalties, in relation to any violations of 66 Pa.C.S. Ch. 30, relating to a bona fide retail request program, and a business attraction and retention program [ §§ 3014(b)(3)(ii)(B) and (c)]; a balanced deployment of broadband networks [ § 3014(k)]; reclassification of a business activity between competitive and noncompetitive [ § 3016(c)]; and prohibitions from using revenues or expenses from non-competitive services to subsidize competitive services [ § 3016(f)].

<sup>1</sup> Act 2004-183 - 66 Pa.C.S. §§ 3010-3019.

## Scope

Senate Resolution 2019-48 directs LBFC to review the compliance of ILECs (telecommunication carriers) with broadband high-speed Internet service deployment mandates under Chapter 30 of the Public Utility Code. One of the policy goals of Chapter 30 was to encourage the accelerated deployment of a universally available, state-of-the-art, interactive broadband telecommunications network in rural,<sup>2</sup> suburban, and urban areas by December 31, 2015, or sooner (i.e., December 31, 2008, or December 31, 2013). Our study covers the period 2004 through 2015. See Appendix A for a copy of Senate Resolution 2019-48.

## Methodology

In order to determine whether incumbent local exchange carriers (ILECs) fulfilled their obligations under Chapter 30, we met with and received information from the two administrative agencies, PUC and DCED, along with its designee, the Governor's Office of Broadband Initiatives (GOBI). We sought information and data from the ILECs, including their network modernization plans, and subsequently required biennial reports stemming from those plans. We also communicated with other agencies, for example, the Pennsylvania Office of Consumer Advocate, which also had a role in Chapter 30 implementation.

We worked with the PUC and other parties, including ILEC representatives, to identify the Pennsylvania ILECs subject to Chapter 30. We also worked with the parties to understand the nature and coverage of broadband communications throughout Pennsylvania, and consulted with outside experts to make these determinations.

Regarding BFRR programs, we were provided with data from the four ILECs required to implement such programs, and reviewed the required reports stemming from those programs.

We met with ILEC representatives who provided information regarding joint ventures they used to fulfill their Chapter 30 obligations.

Lastly, we sought data from the PUC relative to any punitive action (i.e., customer refunds and/or civil penalties) taken related to ILECs' compliance with the act.

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<sup>2</sup>The Center for Rural Pennsylvania (CRP) defines 48 of Pennsylvania's 67 counties as rural with approximately 3.4 million Pennsylvania residents living within those counties.

## Frequently Used Abbreviations and Definitions

Throughout this report, we use a number of abbreviations and definitions for government-related agencies, terms, and functions. These abbreviations and definitions are as follows:

Abbreviation/Defined Term	Definition/Term
Advanced Service (66 Pa.C.S. § 3012)	<p>A retail telecommunications service that, regardless of transmission medium or technology, is capable of supporting a minimum speed of 200 kilobits per second (kbps) in at least one direction at the network demarcation point of the customer’s premises.</p> <p>In 2004, when the term “advanced service” was defined by Chapter 30, many ILECs offered different speed tiers of Digital Subscriber Line (DSL), some of which were at speeds below the defined broadband speeds of 1.544 Mbps/128 Kbps, but above the maximum dial-up speed of 56 Kbps. The separate defined term of “advanced service” allowed customer requests for the slower tiers of DSL to count for purposes of the BFRR program.</p> <p>This is Internet service at a slower speed than broadband (1.544 Mbps download/128 Kbps upstream/upload) as defined in Chapter 30.</p>
Alternative form of regulation (66 Pa.C.S. § 3012)	<p>A form of regulation of telecommunications services other than the traditional rate base or rate-of-return regulation, including a streamlined form of regulation, as approved by the commission [PUC].</p>
BFRR – Bona fide retail request program (66 Pa.C.S. § 3012)	<p>A program established by a local exchange telecommunications company [ILEC] pursuant to section 3014(c) (relating to network modernization plans).</p> <p>The program allows communities to aggregate demand for broadband and receive service prior to an ILEC’s deployment schedule.</p>
Broadband [high-speed Internet access] (66 Pa.C.S. § 3012)	<p>A communication channel using any technology and having a bandwidth equal to or greater than 1.544 megabits per second (Mbps) in the downstream direction and equal to or greater than 128 kilobits per second (Kbps) in the upstream direction.</p> <p>Note: The amended Chapter 30 provisions (Act 2004-183) specified that the 1.544 Mbps applied to downstream speed and also added the 128 Kbps upstream speed provision.</p> <p>The term also commonly refers to high-speed Internet access that is always on and faster than traditional dial-up access (e.g.,</p>

	Digital Subscriber Line (DSL)/other copper wire, cable modem, fiber, wireless via radio link, satellite (wireless), and broadband over powerlines (BPL).
Chapter 30 (Alternative Form Regulation of Telecommunications Services)	Act 1993-67 – 66 Pa.C.S. Ch. 30 (§§ 3001-3009) established the original Chapter 30 provisions in the Pennsylvania Public Utility Code, Title 66 (Public Utilities), and expired on December 31, 2003.  Act 2004-183 – 66 Pa.C.S. Ch. 30 (§§ 3010-3019) repealed the expired, original provisions of Chapter 30 and re-established amended Chapter 30 provisions in the Pennsylvania Public Utility Code, Title 66 (Public Utilities).
Competitive service (66 Pa.C.S. § 3012)	A service or business activity determined to be competitive pursuant to section 3016 (relating to competitive services).
DCED	Department of Community and Economic Development.  Note: The Acting Executive Director of the Governor’s Office of Broadband Initiatives was designated as DCED’s contact for this project.
Download	Downstream/receive from the Internet to a computer.
FCC	Federal Communications Commission.
GOBI	Governor’s Office of Broadband Initiatives.  Note: The Acting Executive Director of the Governor’s Office of Broadband Initiatives was designated as DCED’s contact for this project.
ILEC (Incumbent local exchange carrier/telephone company) – Local exchange telecommunications company (66 Pa.C.S. § 3012)	An incumbent [local exchange] carrier authorized by the commission [PUC] to provide local exchange telecommunications services. The term includes a rural telecommunications carrier and a nonrural telecommunications carrier.
Inflation offset (66 Pa.C.S. § 3012)	The part of the price change formula in the price stability mechanism that reflects an offset to the Gross Domestic Product Price Index or Successor Index [a measure of inflation].  Note: The purpose of an inflation offset is to reflect productivity increases in the telecommunication industry that result in decreasing real costs in the components of telephone service.
Kbps	Kilobits per second.
Mbps	Megabits per second (one Mbps is equal to 1,000 Kbps, 1 Mbps is 1000 times faster than 1 Kbps).
NMP – Network modernization plan (66 Pa.C.S. § 3012)	A plan for the deployment of broadband service by a local exchange telecommunication company under this chapter or any prior law of this Commonwealth.
Noncompetitive service (66 Pa.C.S. § 3012)	A regulated telecommunications service or business activity that has not been determined or declared to be competitive.
Nonprotected service (66 Pa.C.S. § 3012)	Any telecommunications service provided by a local exchange telecommunications company that is not a protected service.

Nonrural ILEC - Nonrural telecommunications carrier (66 Pa.C.S. § 3012)	A local exchange telecommunications company that is not a rural telephone company as defined in section 3 of the Telecommunications Act of 1996 (Public Law 104-104, 110 Stat. 56).
OSBA	Pennsylvania Office of Small Business Advocate.
POCA	Pennsylvania Office of Consumer Advocate.
Protected Service (Basic Universal Service) (66 Pa.C.S. § 3012)	The following telecommunications services provided by a local exchange telecommunications company unless the [PUC] has determined the service to be competitive: <ul style="list-style-type: none"> <li>(1) Service provided to residential consumers or business consumers that is necessary to complete a local exchange call.</li> <li>(2) Touch-tone service.</li> <li>(3) Switched access service.</li> <li>(4) Special access service.</li> <li>(5) Ordering, installation, restoration and disconnection of these services.</li> </ul>
PUC	Pennsylvania Public Utility Commission.
RLEC - Rural telecommunications carrier (66 Pa.C.S. § 3012)	A local exchange telecommunications company that is a rural telephone company as defined in section 3 of the Telecommunications Act of 1996 (Public Law 104-104, 110 Stat. 56).
TA-1996 – Telecommunications Act of 1996 (66 Pa.C.S. § 3012)	The Telecommunications Act of 1996 (Public Law 104-104, 110 Stat. 56).  Note: TA-1996 amended or repealed, except as otherwise expressly provided, the Communications Act of 1934 (47 U.S.C. §§ 151 et seq).
Telecommunications carrier (66 Pa.C.S. § 3012)	An entity that provides telecommunications services subject to the jurisdiction of the [PUC].
Telecommunications service (66 Pa.C.S. § 3012)	The offering of the transmission of messages or communications for a fee to the public.
Universal broadband availability (66 Pa.C.S. § 3012)	Access to broadband service by each telephone customer of a [incumbent] local exchange telecommunications company.
Upload	Upstream/send data from a computer to the Internet.

## Acknowledgements

LBFC staff completed this review with cooperation from the Pennsylvania Public Utility Commission (PUC) and Pennsylvania Department of Community and Economic Development (DCED) along with the Governor's Office of Broadband Initiatives. In particular, we thank the PUC's Gladys Brown Dutrieuille, Chairman, and Seth A. Mendelsohn, Executive Director; and DCED's Dennis M. Davin, Secretary, along with Sheri R. Collins, Acting Executive Director, and Governor's Office of Broadband Initiatives (GOBI). We also appreciate the cooperation and input we received from the Pennsylvania Office of Consumer Advocate (POCA), and the representatives of the incumbent local exchange carriers (ILECs), including the Pennsylvania Telephone Association (PTA).

## Important Note

This report was developed by the staff of the Legislative Budget and Finance Committee, including project manager, Jason R. Brehouse, Esq., counsel, Rick Jones, Esq., staff analyst Anne Witkonis, and staff analyst Rebanta Mukherjee. The release of this report should not be construed as an indication that the Committee as a whole, or its individual members, necessarily concur with the report's findings, conclusions or recommendations.

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## SECTION II BACKGROUND INFORMATION



### **Fast Facts...**

- ❖ *Chapter 30 reflects the Commonwealth policy concerning the delivery of protected services and nonprotected services and the desire to balance mandated deployment of broadband services with market-driven deployment of broadband.*
- ❖ *Chapter 30 helped accelerate deployment of broadband by 2015.*
- ❖ *“Broadband” is defined as a communication channel using any technology and having a bandwidth equal to or greater than 1.544 megabits per second (Mbps) in the downstream direction and equal to or greater than 128 kilobits per second in the upstream direction.*

### **General History of Chapter 30 of the Pennsylvania Public Utility Code**

#### **Transition to a Competitive Open Telecommunications Market**

In the early 1980s, the telecommunications industry in the Commonwealth, and nationwide, was undergoing the transition from an industry in which monopolistic<sup>3</sup> utilities and utility regulators established consumer rates for telephone services, to a competitive open market where market forces dictated the rates.<sup>4</sup> In response to this transition from a monopolistic industry, regulators, including the Federal Communications Commission (FCC) and the Pennsylvania Public Utility Commission (PUC), started to adopt different approaches to how telecommunications providers were regulated.<sup>5</sup> However, prior to Pennsylvania’s adoption of Chapter 30, the initial transition to a different competitive open market regulatory approach for telecommunications providers tended to be slow, untimely, and costly. Prior to the initial enactment of Chapter 30 in 1993, the PUC authorized only one telecommunications company to provide local telephone service within a given area, as compared to current customers who can now choose from different telecommunication companies to provide basic local service, local toll service (regional toll), and long distance service.

#### **Enactment of Chapter 30**

Chapter 30, in general, reflects the policy of the Commonwealth of Pennsylvania concerning the delivery of protected services/basic universal services (i.e., residential and business consumer service necessary to complete a local exchange call; touch-tone service; switched access service; special access services; and the ordering, installation, restoration, and disconnection of these services; unless the PUC has determined such service

<sup>3</sup> The term “monopolistic” is defined as follows: *Exclusive control by one group of the means of producing or selling a commodity or service.* In its purest form a monopolistic industry or market is the opposite of a perfectly competitive market, in which an infinite number of businesses operate.

<sup>4</sup> Historically, the Pennsylvania Public Utility Commission (PUC) relied on the use of rate base/rate-of-return (earnings) methods to determine whether rates for telecommunication services were “just and reasonable” as required under the PUC’s enabling legislation.

<sup>5</sup> Since the enactment of Pennsylvania’s Chapter 30 state law provisions and the federal Telecommunications Act of 1996, the United States market has experienced the consolidation/merger of a number of its telecommunication companies.

to be competitive). It also covers nonprotected, noncompetitive and competitive telecommunication services throughout Pennsylvania that are meant to reinforce the Commonwealth's commitment to universal telephone service and the desire to balance mandated deployment of broadband services with market-driven deployment of broadband services.<sup>6</sup> Chapter 30 specifically reflects that broadband service is considered to be of vital importance to Pennsylvania's rural, suburban, and urban communities.

**Act 1993-67 (Original Chapter 30).** In July 1993, in recognition of the transition of the telecommunications industry, the General Assembly amended the Pennsylvania Public Utility Code and enacted Chapter 30 legislation pursuant to Act 1993-67.<sup>7</sup> The act provided for alternative forms of regulation of in-state telecommunication services provided by incumbent local exchange carriers (ILECs - local telephone companies). In 1999, the PUC noted that Chapter 30 requirements only applied to ILECs and it could not require competitive local exchange carriers (a carrier certified by the PUC after 1993) to implement Chapter 30 Network modernization plan (NMP) requirements, as the Telecommunications Act of 1996 (TA-1996) preempted state laws and regulations that create a barrier to competition. Key requirements of Chapter 30 could be viewed as such a barrier.<sup>8</sup> Chapter 30 is primarily focused on retail service offered to ordinary customers.<sup>9</sup> The provisions of Chapter 30 helped facilitate the telecommunications market to a competitive open market with the following provisions: 1) competitive service provision, 2) alternative rate setting processes, 3) accelerated telecommunication infrastructure modernization, 4) elimination of implicit subsidies that historically helped keep rates low, 5) processes to prevent precipitous increases in local rates as a result of the steps to eliminate subsidies, and 6) continued protection for consumers. The "accelerated telecommunications infrastructure modernization" provision allowed ILECs to voluntarily submit plans to accelerate deployment of technology to have a fully deployed broadband-capable telecommunication infrastructure in place by 2015, in exchange for the PUC's use of reduced alternative forms of regulation, and

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<sup>6</sup> All protected services are considered noncompetitive services, versus nonprotected services, which can be either noncompetitive or competitive services.

<sup>7</sup> Act 1993-67 – 66 Pa.C.S. Ch. 30 (§§ 3001-3009).

<sup>8</sup> Competitive local exchange carriers whose rates were not established based on rate base/rate-of-return methods, such as Adelphia Solutions of Pennsylvania, AT&T Communications, PECO Adelphia, and MCI Worldcom Communications were not subject to the provisions of Chapter 30.

<sup>9</sup> This is in contrast to the federal Telecommunications Act of 1996 that primarily addresses wholesale services.

the authorization of ILECs to be removed from earning based regulation.<sup>10</sup>

**Act 2004-183 (Amended Chapter 30).** The original provisions of Chapter 30 were scheduled to sunset and expired on December 31, 2003. In the interim (until the reauthorization of Chapter 30 via the enactment of Act 2004-183 on November 30, 2004),<sup>11</sup> the PUC issued a Statement of Policy on January 26, 2004, that determined (among other things) previously approved NMPs remained in effect.

The technologies employed by the telecommunications industry evolved at a pace not envisioned in 1993 when Chapter 30 was originally enacted (e.g., alternatives to traditional wireline telephones, includes wireless telephones, and Internet telephone services through broadband connections). As a result, when the amended version of Chapter 30 was reauthorized by the enactment of Act 2004-183, it reflected the telecommunications industry accelerated pace of evolution by providing ILECs with the ability to amend their respective NMPs to further accelerate broadband deployment, in exchange for additional economic incentives and less PUC regulation as follows:<sup>12</sup>

- Elimination/reduction of inflation offset in annual rate adjustments for noncompetitive services (versus the original Chapter 30 productivity offset range of 2 percent to 2.93 percent).<sup>13</sup>

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<sup>10</sup> The PUC contracted for a 1993 telecommunications infrastructure study, which resulted in a six volume report titled "Pennsylvania Telecommunications Infrastructure Study" (March 1993) that became the basis for key provisions of Chapter 30 concerning network modernization (e.g., it provided the definition of "broadband" that incorporated the 1.544 Mbps speed provision, the definition of "universal broadband availability," and the accelerated deployment commitment requirement by 2015 versus 2030). The report indicated that Pennsylvania's telecommunications infrastructure/network was comparable to the networks of other states at the time and found that even though the networks had been upgraded via the deployment of new technologies in the 1980s and 1990s, broadband services at speeds of 1.544 Mbps or higher were typically offered only over dedicated networks for very large business and government users. The report indicated that Pennsylvania's telecommunications network would need to be further modernized with specific technologies (e.g., 100 percent digital switching, signaling and intelligence systems, interoffice fiber feeder outside plant) for the state's network to be broadband (high-speed Internet service) capable to allow Pennsylvania users to make increased use of network intelligence capabilities in the years to come. The report indicated that, based on Pennsylvania ILECs existing technology deployment schedules under rate base/rate-of-return regulation, such deployment would not occur until 2030.

<sup>11</sup> Act 2004-183 – 66 Pa.C.S. Ch. 30 (§§ 3010-3019).

<sup>12</sup> It should be noted that the original Chapter 30 (Act 67 of 1993) required 100 percent broadband deployment by all ILECs by 2015. Inflation offset reductions that occurred under Act 183 of 2004 were the result of all carriers except the Verizon companies accelerating deployment to either 2008 (most of the smaller rural ILECs) or 2013 (Windstream PA - then known as Alltel, and Century Link then known as Sprint/United). However, the Verizon companies (Verizon PA and Verizon North), Windstream PA, and Century Link were all required to implement bona fide retail request (BFRR) programs that allowed their respective customers to obtain advanced services sooner than they may have otherwise received in their localities.

<sup>13</sup> Chapter 30 price cap plans allow total annual revenues from noncompetitive services to increase or decrease from the previous year's total based on the annual change in the Gross Domestic Product Price Index (inflation rate) minus productivity offset; although the PUC noted that not all Chapter 30 ILEC alternative regulation plans are based on price stability mechanism with price cap formulas that utilize Gross Domestic Product Price Index.

- Limitations on PUC reporting requirements.<sup>14</sup>
- Streamlined procedure for competitive service declarations.

Chapter 30, as amended, provided ILECs with three options to further accelerate a 100 percent broadband deployment (i.e., December 31, 2008; December 31, 2013; or December 31, 2015) as follows (dates in boldface are the dates selected by the ILECs):

- **Option 1 – Rural ILEC (RLEC)** may commit to **100 percent** of broadband availability by **December 31, 2008**.
- **Option 2 – RLEC** may commit to **80 percent** of broadband availability by **December 31, 2010** and **100 percent by December 31, 2013** or December 31, 2015 plus establish a Bona Fide Retail Request (BFRR) program and a Business Attraction and Retention (BAR) program.
- **Option 3 – Nonrural ILEC** may commit to **100 percent** by December 31, 2013 or **December 31, 2015** plus establish a BFRR program and a BAR program.

The use of alternative forms of regulation under Chapter 30 included incentive regulation and ratemaking for Pennsylvania ILECs based on price stability mechanisms incorporating price cap formulas that allowed for annual revenue and rate increases.<sup>15</sup>

Act 2004-183 Declaration of Policy states in relation to broadband that it seeks to:<sup>16</sup>

- (1) *Strike a balance between mandated deployment and market-driven deployment of broadband facilities and advanced services throughout this Commonwealth and to continue alternative regulation of local exchange telecommunications companies.*
- (2) *Maintain universal telecommunications service at affordable rates while encouraging the accelerated provision of advanced services and deployment of a universally available state-of-*

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<sup>14</sup> PUC, pursuant to Act 2004-183, eliminated various reports (e.g., Financial Earning, Annual Depreciation, Interest Rate on Deposits, Service Life Study, Capital Investment, Quarterly Cramming and Slamming (long distance), and Collocation). The PUC determined that the remaining reports were necessary to ensure that ILECs are charging rates in compliance with Chapter 30, and that benefits of the reports substantially outweighed attendant expense and administrative time and effort required by ILEC's to prepare the reports (e.g., Biennial Update, Annual Financial, Telephone Relay Service, Annual Service, Universal Service, Annual Access Line, Annual Assessment, Annual State Tax Adjustment, Bona Fide Retail Request).

<sup>15</sup> The PUC authorized a cumulative total of \$1.23 billion (2005-2017) in incentive revenue and rate increases for Pennsylvania ILECs pursuant to Chapter 30. This cumulative amount represents increases that were authorized, but not fully implemented by Chapter 30 ILECs. On occasion small Chapter 30 ILECs "banked" and eventually lost annual revenue and rate increase opportunities that were authorized under their respective alternative regulation plans. The Verizon ILECs have implemented every authorized annual revenue and rate increase with the exception of those authorized in the most recent years.

<sup>16</sup> Act 2004-183 – 66 Pa.C.S. § 3011(1) & (2) (relating to declaration of policy).

*the-art, interactive broadband telecommunications network in rural, suburban and urban areas, including deployment of broadband facilities in or adjacent to public rights-of-way abutting public schools, including the administrative offices supporting public schools, industrial parks and health care facilities.*

The *PA Broadband Bill of Rights*, see Appendix B, was developed by the PUC based on Chapter 30 as amended by Act 2004-183. The *PA Broadband Bill of Rights* not only reflects the statutory provisions of Chapter 30, but also provides Pennsylvania broadband consumers with PUC contact information. In 2016, the PUC issued an opinion and order (*Terry R. White v. Verizon North, LLC*) affirming that it has statutory jurisdiction to inquire into matters involving the availability and provisioning of broadband services by ILECs with Chapter 30 broadband deployment commitments and obligations.

The PUC is not like a traditional executive branch agency charged with administering a publically funded program, and Chapter 30 is not a publically funded program. Rather, the PUC is an independent quasi-judicial state agency authorized to ensure that all utility customers have access to reliable and safe utility services at just and reasonable costs, while also empowering consumers to take advantage of the benefits of competition. The PUC is tasked with balancing the interests of consumers against those of the private telecommunications companies that provide utility services. It is further recognized that the telecommunications companies regulated by PUC are statutorily subject to the just and reasonable rate standard along with other provisions under Section 3019 of Chapter 30, which are also in the long-term public interest.

## **Federal Telecommunications Act of 1996 (TA-1996)**

**Enactment of TA-1996.** At the federal level, between the initial enactment of Pennsylvania's Chapter 30 (Act 1993-67) and its amendment and reauthorization (Act 2004-183), the Telecommunications Act of 1996 (TA-1996) was enacted for the purposes of promoting competition; reducing regulatory barriers throughout the telecommunication industry to secure lower prices and higher quality services for American telecommunication consumers; and to encourage the rapid deployment of new telecommunications technologies.<sup>17</sup> TA-1996 was the first major overhaul of the federal telecommunications law in almost 62 years.<sup>18</sup> The FCC states,

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<sup>17</sup> TA-1996 - [Telecommunications Act of 1996](#), (Public Law 104-104, 110 Stat. 56), (47 U.S.C. §§ 151 et seq.).

<sup>18</sup> [TA-1996](#) amended and repealed sections related to the federal [Communications Act of 1934](#), (Public Law 73-416, 48 Stat. 1102), (47 U.S.C. §§ 151 et seq.). The [Communications Act of 1934](#), provided the foundation for present-day United States telecommunications policy and established the FCC (an independent United States agency) responsible for the regulation of interstate and foreign communications by radio, television, wire, and subsequently satellite. The

“The goal of this new law was to let anyone enter any communications business - to let any communications business compete in any market against any other.”

**FCC Efforts to Close the Digital Divide pursuant to Section 706 of TA-1996.** Section 706 of TA-1996 directs the FCC to encourage the deployment of broadband (advanced telecommunications capability)<sup>19</sup> and mandates the FCC to annually report on whether broadband is deployed in a reasonable and timely basis to all Americans. The FCC is further charged, under Section 706, if it determines that the deployment of broadband was not reasonable and timely, to take immediate action to accelerate deployment by removing barriers to infrastructure investment and by promoting competition in the telecommunications market.<sup>20</sup> The initial FCC broadband deployment reports (1999, 2000, 2002, 2004, and 2008) all concluded broadband deployment was reasonable and timely. However, the FCC’s 2010, 2011, 2012, 2015, and 2016 broadband deployment reports concluded that deployment of broadband was not reasonable and timely, leading the FCC to take a number of actions as reported in its *2018 Broadband Deployment Report* (and other prior year reports) as required by Congress, pursuant to Section 706 of TA-1996, to remove barriers to infrastructure investment and to promote competition including establishing a Broadband Deployment Advisory Committee.

As a result of these actions, the FCC subsequently concluded in its *2018 Broadband Deployment Report* that broadband was being deployed in a reasonable and timely fashion and that the United States was back on the right track. In the FCC’s most recent report [*2019 Broadband Deployment Report*], the FCC touts that, “For the past two years the Commission has taken up the mantle; it has made closing the digital divide between Americans with and without access to modern broadband networks its top priority” (e.g., in June 2018, the FCC set aside the enforcement of rules that it found were unfairly driving up the cost of broadband services for customers of some rural providers), and that as a result of its efforts “the digital divide has narrowed substantially.”

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Communications Act of 1934 was based upon the Radio Act of 1927, (Public Law 69-632, 44 Stat. 1174), (47 U.S.C. §§ 81-119) which was passed as a temporary measure intended to stabilize the rapidly growing and tumultuous radio industry (as radio had become popular worldwide by the early 1920s) that was unable to self-regulate itself. The Radio Act of 1927 itself was enacted to replace the Radio Act of 1912, formerly known as “An Act to Regulate Radio Communications.” (Public Law 62-264, 37 Stat. 302), (47 U.S.C. §§ 51-63) which was the first legislation to require the licensing of radio stations transmission of radio communications (known as “wireless telegraphy” when originally developed in the late 1890s) and was enacted before the introduction of radio broadcasting to the general public.

<sup>19</sup> The term “advanced telecommunications capability” is defined “without regard to any transmission media or technology, as high-speed, switched, broadband telecommunications capability that enables users to originate and receive high-quality voice, data, graphics, and video communications using any technology.”

<sup>20</sup> The statutory goals and regulatory authority of the FCC are ongoing under TA-1996 versus that of the PUC and DCED under Chapter 30 (66 Pa.C.S. §§ 3010-3019) in relation to broadband deployment.

Section 706 of TA-96 was amended by the Broadband Data Improvement Act of 2008 (BDIA)<sup>21</sup> to improve the quality and quantity of data the FCC collects on the deployment of broadband services as follows: 1) requires FCC to publish section 706 reports annually instead of regularly, 2) requires FCC to compile demographic information for underserved areas as part of the annual section 706 inquiry, and 3) requires FCC to include an international comparison in its annual section 706 report.<sup>22</sup>

Also of note is the federal American Recovery and Reinvestment Act of 2009 (ARRA/Recovery Act/stimulus package)<sup>23</sup> that reflects a significant progression of national broadband goals since the enactment of section 706 of TA-96. Section 6001 of ARRA directed FCC to develop a plan by February 17, 2010, that seeks to ensure all people of the United States have access to broadband.

## Internet and Broadband

**Internet Defined.** The Internet is a computer network collectively consisting of millions of interconnected networks worldwide that allow two or more devices to exchange data. This communication is enabled by an exchange of electronic signals through the maze of individual networks that is facilitated by both wireline and wireless networks.<sup>24</sup>

The Internet's interconnected networks vary in size and typically serve a specific purpose as is depicted in Exhibit 1.<sup>25</sup>

### Exhibit 1

#### Internet Networks

The following reflects the types of networks that make up the Internet:

- **Last mile** wireline and wireless networks provide residential and business end-users with links to various telecommunications and information networks and broader access to the Internet.
- **Middle mile** networks connect multiple "last mile" networks to a larger backbone network.
- **Backbone and long haul** networks carry high-volume digital traffic over greater distances.

Source: Developed by LBFC staff from data provided by the Department of Community and Economic Development.

<sup>21</sup> BDIA – Broadband Data Improvement Act of 2008, (Public Law 110-385, 122 Stat. 4097), (47 U.S.C. §§ 1301-1304).

<sup>22</sup> BDIA also directs a number of other provisions in relation to broadband deployment, including directing other federal agencies to take specific actions in relation to broadband.

<sup>23</sup> ARRA/Recovery Act – American Recovery and Reinvestment Act of 2009, (Public Law 111-5, 123 Stat. 115).

<sup>24</sup> A wireline network transmits signals over wires and cables (e.g., telephone, cable television, electric power lines, fiber optic cable, etc.). A wireless network transmits signals through the airwaves using spectrum purchased from the federal government (e.g., Wireless fidelity (Wi-Fi), satellite, etc.). Various types of wireless networks, including those that are utilized by wireless carriers for mobile communications, are dependent on terrestrial network links (e.g., wireless tower connections through fiber optic links for transport and movement of mobile wireless voice and data traffic).

<sup>25</sup> Last mile, middle mile, and backbone networks are crucial parts of the overall broadband infrastructure that allow for efficient data exchange.

**Broadband Defined.** While the exchange of data via electronic signals occurs utilizing the collective computer network known as the Internet, the term broadband refers to the speed of the electronic data transmission, which is a function of the equipment used. The PUC and the FCC both indicate on their respective websites that the term “broadband” Internet service commonly refers to high-speed Internet access that is always on and is faster than the traditional dial-up access and includes several types of high-speed connections/transmission technologies (e.g., digital subscriber line (DSL), other copper wire (non-DSL), cable modem, fiber, wireless via radio link, satellite (wireless), broadband over power-lines (BPL), etc.). Chapter 30 specifically defines the term “broadband” as follows:<sup>26</sup>

*“Broadband.” A communication channel using any technology and having a bandwidth equal to or greater than 1.544 megabits per second (Mbps) in the downstream direction and equal to or greater than 128 kilobits (Kbps) per second in the upstream direction.*<sup>27</sup>

The broadband speeds of 1.544 Mbps/128 Kbps reflected in Chapter 30 are the standards applicable to this project versus the FCC’s current minimum speed standard of 25 Mbps/3 Mbps or other higher speeds that may or may not be deemed by today’s standards as being adequate in regards to a particular customers usage.<sup>28</sup>

Exhibit 2 provides an overview of types of broadband high-speed Internet access connections/transmission technologies.

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<sup>26</sup> Act 2004-183 - 66 Pa.C.S. § 3012 (relating to definitions).

<sup>27</sup> The significance behind the Chapter 30 mandated broadband speed of 1.544 Mbps was that such was generally considered to be within the capability of the telephone companies existing copper wire based local distribution networks. At the time, typical home modems generally operated at speeds of up to 56 Kbps (56,000 bits of information per second) compared to 1.544 Mbps (1.5 million bits of information per second).

<sup>28</sup>A June 2019 report on broadband availability in rural Pennsylvania released by The Center for Rural Pennsylvania (CRP) indicated Pennsylvania broadband providers (ILECs) claim to have met the broadband deployment mandates of Chapter 30 of the Pennsylvania Public Utility Code whereby the providers were required to make full broadband access available to 100 percent of Pennsylvania residents by the end of 2015 or earlier (i.e., December 31, 2008, and December 12, 2013). However, the CRP report further notes that under Chapter 30 “broadband” was defined by “a decades-old speed of 1.544 Mbps. . . download and 128 Kbps. . . upload, and not the current standards [25 Mbps/3 Mbps] set by the Federal Communications Commission (FCC).” The CRP report concerns about broadband deployment in rural Pennsylvania are primarily based on the higher minimum FCC speed standards of 25 Mbps/3 Mbps. The CRP report also highlights concerns about how broadband availability and speeds are confirmed in that such is based on industry self-reported data collected by the FCC via its Form 477 and that such allows providers to list entire census blocks [statistical areas bound by visible features, such as streets, and non-visible boundaries, such as property lines] as being served even when only providing service to a one customer.



Exhibit 2

**Types of Broadband High-speed Internet Access Connections**

**Digital Subscriber Line (DSL)**

DSL is a wireline transmission technology that transmits data faster over traditional copper telephone lines already installed to homes and businesses. DSL-based broadband provides transmission speeds ranging from several hundred Kilobits per second (Kbps) to millions of Kbps. The availability and speed of a DSL device may depend on the distance from the home/business to the closest telephone company transmission facility.

The following are types of DSL transmission technologies:

- **Asymmetrical Digital Subscriber Line (ADSL)** – Used primarily by residential customers, such as Internet surfers, who receive a lot of data, but do not send much. ADSL typically provides faster downstream data transmission over the same line used to provide voice service, without disrupting regular telephone calls on the same line.
- **Symmetrical Digital Subscriber Line (SDSL)** – Used typically by business for services (e.g., video conferencing) that need significant bandwidth both upstream and downstream.

Faster forms of DSL typically available to businesses include:

- **High data rate Digital Subscriber Line (HDSL)**
- **Very High data rate Digital Subscriber Line (VDSL)**

**Cable Modem**

Cable modem service enables cable operators to provide broadband using the same coaxial cables that deliver pictures and sound to a TV set. Most cable modems are external devices that have two connections: one to the cable wall outlet, the other to the computer. Subscribers can access their cable modem service by turning on their computers (without dialing-up and ISP) and can still watch cable TV while using it. They provide transmission speeds of 1.5 Megabits per second (Mbps) or more, which vary depending on the type of cable modem, cable network, and traffic load. Speeds are comparable to DSL.

**Fiber**

Fiber optic technology converts electrical signals carrying data to light and sends the light through transparent glass fibers (about the diameter of a human hair). Fiber transmits data at speeds far exceeding current DSL or cable modem speeds (typically by tens or even hundreds of Mbps). The actual speed varies depending on how close the service provider is to the computer and how the service is configured, including the amount of bandwidth used. The same fiber providing broadband can also simultaneously deliver voice (VoIP) and video services (e.g., video on demand).

Exhibit 2 Continued

**Wireless via Radio Link**

Wireless broadband terrestrial (land based) connections (fixed or mobile) use a radio link to connect the customer's home or business location with the service provider's facility.

Wireless transmission technologies using longer-range directional equipment provide broadband service in remote or sparsely populated areas where DSL or cable modem service would be costly. Speeds are comparable to DSL and cable modem. An external antenna is usually required.

- Wireless broadband Internet access service provided over a fixed network allows consumers to access the Internet from a fixed point while stationary and often require a direct-line-of-sight between the wireless transmitter and receiver. This type of service is offered using both licensed spectrum and unlicensed devices and is typically provided at speeds of around 1 Mbps utilizing unlicensed devices.
- Wireless Local Area Networks (WLANs) provide wireless broadband access over shorter distances and are often used to extend the reach of a "last mile" wireline or fixed wireless broadband connection within a home, building, or campus environment. Wi-Fi networks use unlicensed devices and can be designed for private access within a home or business, or be used for public Internet access at "hot spots" (e.g., restaurants, coffee shops, hotels, airports, convention centers, and city parks).
- Mobile wireless broadband services are also becoming available from mobile telephone service providers and others. These services are generally appropriate for highly-mobile customers and require a special PC card with a built-in antenna that plugs into a user's laptop computer. Generally, such service is provided at a lower speed, in the range of several hundred Kbps.

**Satellite (another form of wireless)**

Satellite broadband is another form of wireless broadband that is useful for serving remote or sparsely populated areas.

- Downstream and upstream speeds depend on several factors (e.g., provider and service package purchased, customer's line of sight to the orbiting satellite, and the weather). Customers can expect download/receive speeds of about 500 Kbps and upload/send speeds of about 80 Kbps, which is slower than DSL and cable modem, but still about 10 times faster than download speed with dial-up Internet access.
- Service can be subject to disruption by extreme weather conditions.

**Broadband over Power Line (BPL)**

BPL is the delivery of broadband over the existing low-and medium-voltage electric power distribution network. BPL is an emerging technology, available in very limited areas, that utilizes existing electrical connections, power lines, and outlets.

Source: Developed by LBFC staff from data provided by the Federal Communications Commission.

In 2015, the FCC set 25 Mbps download and 3 Mbps upload as the current broadband high-speed Internet access benchmarks. The FCC

deemed these speeds sufficient to efficiently undertake various online activities/applications (e.g., streaming high-speed video, online conferencing, etc.). Exhibit 3 is an FCC broadband speed guide that reflects a comparison of the minimum download speeds necessary for various online activities/applications.

### Exhibit 3

<b>FCC Broadband Speed Guide</b>	
<p>The following listing reflects a comparison of online activities/applications with the minimum download speed (Mbps) necessary for adequate performance of each application. Speeds are based on running one application at a time. Additional speed may enhance performance.</p>	
<b>Activity</b>	<b>Minimum Download Speed (Mbps)</b>
<b>General Usage</b>	
General Browsing and Email	1
Streaming Online Radio	Less than 0.5
VoIP Calls	Less than 0.5
Student	5-25
Telecommuting	5-25
File Downloading	10
Social Media	1
<b>Watching Video</b>	
Streaming Standard Definition Video	3-4
Streaming High Definition (HD) Video	5-8
Streaming Ultra HD 4K Video	25
<b>Video Conferencing</b>	
Standard Personal Video Call (e.g., Skype)	1
HD Personal Video Call (e.g., Skype)	1.5
HD Video Teleconferencing	6
<b>Gaming</b>	
Gaming Console Connecting to the Internet	3
Online Multiplayer	4

Note: These numbers are rough guidelines provided by the FCC and are not based on surveys or experiments conducted by the FCC.

Source: Developed by LBFC staff from data provided by the Federal Communications Commission.

## Pennsylvania Delivery, Demand, Diversity, and Obsolescence

Chapter 30's declaration of policy states the following in regards to Pennsylvania policy:<sup>29</sup>

*(6) Ensure the efficient delivery of technological advances and new services throughout this Commonwealth in order to improve the quality of life for all Commonwealth residents.*

Readers need to bear in mind that commitments and availability do not necessarily translate into demand. Studies have reported broadband availability does not automatically result in potential customers subscribing to the service at the maximum speed available or at all for various reasons (e.g., lack of interest/need, lack of awareness, pricing, age, etc.).<sup>30</sup> A 2019 Pew Research Center report indicates that 10 percent (vs. 15 percent in 2013) of American adults do not use the Internet at all, which is substantially lower than in 2000 when the number not using the Internet was 48 percent.<sup>31</sup> A representative of the Pennsylvania Telephone Association (PTA) further stated before the Pennsylvania Senate Communications and Technology Committee the following in relation to rural broadband:

*All of my members [ILECS] wish the 'If you build it, they will come' mantra was applicable to rural broadband, but this simply is not the case.*

Also, as with many issues impacting the Commonwealth of Pennsylvania, the size and diversity of the Commonwealth, including its different types of topography and communities with various population densities, means what may be the best solution for one region of the Commonwealth may not be the best answer in another region, given the unique challenges present in Pennsylvania's rural, suburban, and urban areas.

The FCC stated in its 2019 Broadband Deployment Report:

*We remain committed to ensuring that all Americans, including those in rural areas . . . have the benefits of a high-speed broadband connection.*<sup>32</sup>

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<sup>29</sup> Act 2004-183 - 66 Pa.C.S. § 3011(6) (relating to declaration of policy).

<sup>30</sup> Representatives of the Pennsylvania telecommunications industry have noted that a customer who has elected not to buy broadband despite its availability will be shown as not having access to broadband.

<sup>31</sup> The Pew Research Center report notes that the number of American adults not using the Internet over the last four years has changed little, despite ongoing government and social service programs meant to encourage Internet usage in underserved areas.

<sup>32</sup> FCC agrees that "the Commission should continue to take affirmative steps toward . . . closing the 'digital divide' that separates rural and other typically unserved or underserved areas from areas with substantially greater connectivity service and service options."

The FCC report further notes that modern society is an increasingly digital one and access to broadband is essential to ensuring all Americans can thrive and enjoy the full promise of our economy, and the FCC continues to conclude that broadband connection at speeds of at least 25 Mbps/3 Mbps (the FCC's current benchmark) is an appropriate measure.<sup>33</sup> Meanwhile, the FCC has acknowledged more and more Americans have access to broadband at even higher speeds, [and other stakeholders in discussing broadband access today are doing so in terms of speeds exceeding those stated in Chapter 30 (1.544 Mbps/128 Kbps) or the FCC minimum (25 Mbps/3 Mbps)].<sup>34</sup>

As a final note in relation to the subject of broadband mandatory deployment, the PUC emphasized that even if the Commonwealth of Pennsylvania successfully addressed capital, operating, and transportation cost issues in relation to broadband deployment, under Chapter 30 or otherwise, Pennsylvania would still be faced with the recurring issue of obsolescence and depreciation.<sup>35</sup> Deploying technology of any sort is most often challenged by the reality of facing an accelerated time table with regard to the issues of obsolescence and depreciation.

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<sup>33</sup> The Penn State Board of Trustees in 2013 labeled the Internet a "Common Good," which means Penn State University considers high-speed broadband of high importance and should be provided everywhere for all students while on campus.

<sup>34</sup> The FCC acknowledges that some commentators have argued for increasing its current speed benchmark of 25 Mbps/3 Mbps; however, the FCC concluded that its current benchmark continues to meet the federal statutory definition of advanced telecommunications capability (e.g., said speeds enable users to originate and receive high-quality voice, data, graphics, and video telecommunications, etc.). The FCC highlighted that the number of Americans with access to at least 250 Mbps/25 Mbps broadband grew in 2017 by more than 36 percent, to 191.5 million individuals.

<sup>35</sup> Computer processing power for electronics related to broadband declines by 50% every 18 months under a phenomenon referred to as Moore's Law.

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## SECTION III INCUMBENT LOCAL EXCHANGE CARRIER COMPLIANCE



### **Fast Facts...**

- ❖ *Each ILEC met its 100 percent broadband availability commitment.*
- ❖ *Chapter 30 requires ILECs to provide a broadband network that allows the customer to have access to broadband at minimum download/upload speeds of 1.544 Mbps/128 Kbps within ten business days of request.*
- ❖ *Commonwealth policy seeks to strike a balance between mandated deployment and market driven deployment of broadband facilities.*
- ❖ *Chapter 30 encourages reasonably balanced deployment of broadband network between rural, urban, and suburban areas.*
- ❖ *ILECs can use any broadband technology to meet their commitments.*

## **Overview**

This section provides an overview of Pennsylvania ILECs and ascertains whether the local telecommunication carriers fulfilled their commitments under amended Chapter 30, alternative form regulation of telecommunication services. Under the law, ILECs were required to accelerate broadband availability at minimum download/upload speeds of 1.544 Mbps/128 Kbps in a balanced manner throughout rural, suburban, and urban areas. Broadband was to be made available to 100 percent of their total retail access lines in their distribution networks by the corresponding deadline imposed pursuant to the broadband deployment option selected by each ILEC (i.e., December 31, 2008, December 31, 2013, or December 31, 2015).

### **A. Incumbent Local Exchange Carrier Requirements**

Amended Chapter 30, (alternative form regulation of telecommunication services) provisions regarding broadband deployment mandates require Pennsylvania ILECs (local telephone companies) to accelerate their deployment of technologies to provide for a broadband telecommunications network, to allow the customer/end user to have access to broadband high-speed Internet, at minimum, download/upload speeds of 1.544 Mbps/128 Kbps within ten business days of a request for such service. Chapter 30 was designed to bring about the deployment of broadband technologies fifteen years earlier (2015) than the PUC 1993 telecommunications infrastructure study estimated would have occurred under rate base/rate-of-return regulation (2030). As indicated in a prior section of this report, Chapter 30 provided regulation and ratemaking incentives meant to encourage ILECs, under the purview of the PUC, to accelerate broadband availability throughout the Commonwealth of Pennsylvania. Chapter 30's declaration of policy states it is the policy of the Commonwealth to:<sup>36</sup>

<sup>36</sup> Act 2004-183 – 66 Pa.C.S. § 3011(1) (relating to declaration of policy).

*Strike a balance between mandated deployment and market-driven deployment of broadband facilities and advanced services throughout this Commonwealth and to continue alternative regulation of local exchange telecommunications companies [ILECs].*

Chapter 30 provisions also encourage and support a reasonably balanced deployment of broadband networks between rural, urban, and suburban areas, which is further emphasized in Chapter 30's statement of policy that includes the following:

*. . .encouraging the accelerated provision of advanced devices and deployment of a universally available, state-of-the-art, interactive broadband telecommunications network in rural, suburban and urban areas. . .*<sup>37</sup>

The provisions of Chapter 30 are only applicable to Pennsylvania ILECs certified by the PUC and subject to its oversight, versus other broadband providers (e.g., cable, wireless via radio link, satellite (wireless), etc.).<sup>38</sup> Also, the acceleration of broadband availability via a high-speed network implemented by ILECs operating in Pennsylvania was primarily based on DSL (or other copper wire systems) and a small amount of fiber with some ILECs utilizing mobile wireless via radio link and satellite (wireless) pursuant to joint venture agreements to satisfy any potential shortfalls as the ILECs' respective commitment dates approached.

Following the initial enactment of Chapter 30 in 1993, Pennsylvania had 38 ILECs, versus 37 ILECs when Chapter 30 was amended and re-enacted in 2004, as shown in Exhibit 4.

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<sup>37</sup> Act 2004-183 – 66 Pa.C.S. § 3011(2) (relating to declaration of policy).

<sup>38</sup> While other broadband providers were not subject to the provisions of Chapter 30, wireless via radio link and/or satellite (wireless) providers were utilized by four Pennsylvania ILECs (i.e., CenturyLink, Windstream PA, Verizon PA, and Verizon North) via joint venture arrangements to satisfy their respective Chapter 30 accelerated broadband accessibility commitments.



Exhibit 4

<b>Pennsylvania Incumbent Local Exchange Carriers (ILECs)* (As of 12/3/1994, 12/31/2004, and 12/31/2015)</b>			
<b>PA ILECs (as of 12/3/1994)</b>	<b>PA ILECs (as of 12/31/2004)</b>	<b>PA ILECs (as of 12/31/2015)</b>	<b>Act 2004-183 Option</b>
<p><b>Option 1:</b> RLEC that selected 12/31/2008 as date for 100% broadband availability. [66 Pa.C.S. § 3014(b)(1)]</p> <p><b>Option 2:</b> RLEC that selected 12/31/2013 as date for 100% broadband availability. [66 Pa.C.S. § 3014(b)(2)]</p> <p><b>Option 3:</b> Nonrural ILEC that selected 12/31/2015 as date for 100% broadband availability. [66 Pa.C.S. § 3014(b)(3)]</p> <p><b>Granted Waiver:</b> Four ILECs (as indicated below) petitioned under the original provisions of Chapter 30 and were granted a waiver from filing a Chapter 30 network modernization plan (NMP) as their service territories overlapped adjacent state borders (i.e., NY or W. VA) and the majority of each of the ILEC’s operations and customers were in the adjacent state.</p>			
<p><b>Note:</b></p> <ul style="list-style-type: none"> <li>• Rows highlighted in “yellow” indicate the RLEC is one of two (i.e., CenturyLink, and Windstream PA) that selected <u>Option 2</u> (December 31, 2013).</li> <li>• Rows highlighted in “gray” indicates the nonrural ILEC is one of two (i.e., Verizon North, and Verizon PA) that selected <u>Option 3</u> (December 31, 2015).</li> <li>• Rows highlighted in “green” indicate one of four ILECs “<u>granted waiver</u>” from filing a Chapter 30 NMP.</li> </ul>			
ALLTEL (Windstream PA, 2006) <sup>a</sup>	ALLTEL	Windstream PA	2
Armstrong-North	Armstrong-North	Armstrong-North	1
Armstrong-PA	Armstrong-PA	Armstrong-PA	1
Bell Atlantic-PA (Verizon PA, 2000) <sup>b</sup>	Verizon PA	Verizon PA	3
Bentleyville <sup>c</sup> (Fairpoint Communications, 2005)	Bentleyville (Fairpoint Communications, 2005)	Bentleyville (Fairpoint Communications, 2005)	1
Buffalo Valley (Windstream Buffalo Valley, 2009) <sup>a</sup>	Buffalo Valley	Windstream Buffalo Valley	1
Citizens Kecksburg	Citizens Kecksburg	Citizens Kecksburg	1
Citizens Telecommunications of NY <sup>d</sup>	Citizens Telecommunications of NY	Citizens Telecommunications of NY	Granted Waiver
Citizens PA <sup>e</sup>	NA	NA	NA
Commonwealth (Frontier Communications Commonwealth, 2007/2008) <sup>d</sup>	Commonwealth	Frontier Communications Commonwealth	1
Conestoga (Windstream Conestoga, 2009) <sup>a</sup>	Conestoga	Windstream Conestoga	1
Denver & Ephrata (Windstream D&E, 2009) <sup>a</sup>	Denver & Ephrata	Windstream D&E	1

Exhibit 4 Continued

Deposit Telephone of NY (TDS – Deposit of NY, 1996) <sup>f</sup>	TDS - Deposit Telephone of NY	TDS - Deposit Telephone of NY	Granted Waiver
Frontier-Breezewood (Frontier Communications of Breezewood, 2008) <sup>d</sup>	Frontier-Breezewood	Frontier Communications of Breezewood	1
Frontier-Canton (Frontier Communications of Canton, 2008) <sup>d</sup>	Frontier-Canton	Frontier Communications of Canton	1
Frontier-Lakewood (Frontier Communications of Lakewood, 2008) <sup>d</sup>	Frontier-Lakewood	Frontier Communications of Lakewood	1
Frontier-Oswayo River (Frontier Communications of Oswayo River, 2008) <sup>d</sup>	Frontier-Oswayo River	Frontier Communications of Oswayo River	1
Frontier-PA (Frontier Communications of PA, 2008) <sup>d</sup>	Frontier-PA	Frontier Communications of PA	1
GTE North (Verizon North, 2000) <sup>b</sup>	Verizon North	Verizon North	3
Hancock (New York)	Hancock (New York)	Hancock (New York)	Granted Waiver
Hickory	Hickory	Hickory	1
Ironton	Ironton	Ironton	1
Lackawaxen	Lackawaxen	Lackawaxen	1
Laurel Highland	Laurel Highland	Laurel Highland	1
Marianna & Scenery Hill <sup>c</sup> (Fairpoint Communications, 2001)	Marianna & Scenery Hill (Fairpoint Communications, 2001)	Marianna & Scenery Hill (Fairpoint Communications, 2001)	1
North Eastern PA	North Eastern PA	North Eastern PA	1
North Penn	North Penn	North Penn	1
North Pittsburgh (Consolidated Communications of Pennsylvania, 2007) <sup>g</sup>	North Pittsburgh	Consolidated Communications of Pennsylvania	1
Palmerton	Palmerton	Palmerton	1
Pennsylvania	Pennsylvania	Pennsylvania	1
Pymatuning	Pymatuning	Pymatuning	1
South Canaan	South Canaan	South Canaan	1
TDS – Mahanoy & Mahantango <sup>f</sup>	TDS – Mahanoy & Mahantango	TDS – Mahanoy & Mahantango	1
TDS – Sugar Valley <sup>f</sup>	TDS – Sugar Valley	TDS – Sugar Valley	1
United Telephone Company of Pennsylvania (CenturyLink, 2008/Embarq, 2006/Sprint) <sup>h</sup>	United Telephone Company of Pennsylvania (CenturyLink, 2008/Embarq, 2006/Sprint)	United Telephone Company of Pennsylvania (CenturyLink, 2008/Embarq, 2006/Sprint)	2
Venus	Venus	Venus	1
West Side (West Virginia)	West Side (West Virginia)	West Side (West Virginia)	Granted Waiver
Yukon Waltz	Yukon Waltz	Yukon Waltz	1

Exhibit 4 Continued

\*The Pennsylvania Public Utility Commission (PUC) certified most of its ILECs as rural local exchange carriers (RLECs) as they are eligible for certain federal subsidies due to the above average costs they incurred, due to their low population density. Bell Atlantic-PA (Verizon-PA) and GTE (Verizon-North) are the only two ILECs not certified as RLECs.

<sup>a</sup> Windstream Communications:

- Windstream PA was still known as part of Alltel (landline assets spun off in 2006).
- In 2009, Windstream Communications acquired D&E Communications (i.e., Buffalo Valley Telephone Company, Conestoga Telephone and Telegraph Company, and Denver & Ephrata Telephone Company).

<sup>b</sup> Following the Bell Atlantic Corp. and GTE Corp. June 30, 2000 merger, the corporation changed its name to Verizon Communications Inc. (Verizon) and Bell Atlantic-PA became Verizon PA (holds nonrural PA assets) and GTE North became Verizon North. As of July 3, 2000, Verizon North and Verizon PA jointly known as Verizon, which coincides with when Verizon began trading on the New York Stock Exchange (NYSE) under the symbol VZ. However, PUC continued to independently certify Verizon North and Verizon PA as ILECs for purposes of Chapter 30.

<sup>c</sup> Fairpoint Communications acquired Bentleyville in 2005, and Marianna & Scenery Hill in 2001.

<sup>d</sup> Frontier Communications:

- In 2007, Commonwealth was acquired by Citizens Communications Company (Frontier Communications Company), which resulted in the d/b/a of Frontier Communications Commonwealth Telephone Company.
- In 1994, Citizens Communications acquired rural access lines from GTE (these lines were formerly part of Contel of New York) that became part of Citizens Telecommunications Company of NY.
- Effective 1/1/1995, Rochester Telephone Company created a holding company parent (Frontier Corporation) and its local operating companies in Pennsylvania (and elsewhere) also changed their names (i.e., Frontier Communications of Breezewood Inc., Frontier Communications of Canton Inc., Frontier Communications of Lakewood Inc., Frontier Communications of Oswayo River, Inc., and Frontier Communications of Pennsylvania, Inc.). In 1999, Frontier Communications Company assets were acquired by Global Crossings Ltd and Global Crossings North America, Inc., which were sold, in 2001, to Citizens Communications Company.

<sup>e</sup> Citizens PA was no longer a separate operating company in 2002, as it had become part of Citizens Telecommunications Company of New York (which is one of four ILECs granted a waiver by the PUC).

<sup>f</sup> TDS Telecom acquired: Deposit Telephone of NY (1996), Mahanoy & Mahantango (1984), and Sugar Valley (1975).

<sup>g</sup> Consolidated Communications acquired North Pittsburgh Systems, Inc., including the North Pittsburgh Telephone Company (North Pittsburgh) and subsequently operates under the name Consolidated Communications of Pennsylvania.

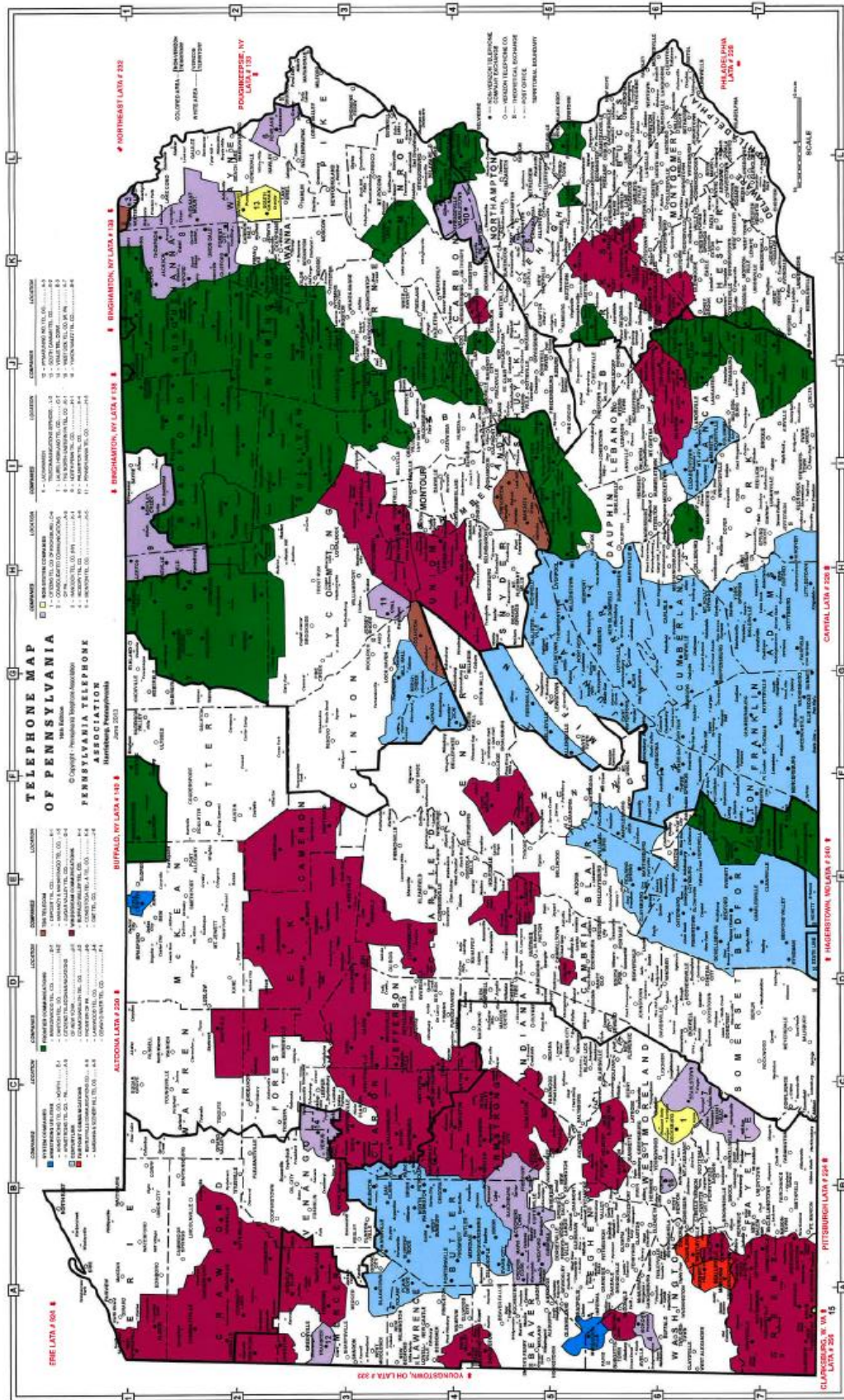
<sup>h</sup> United Telephone Company of Pennsylvania was acquired by CenturyTel (which was renamed CenturyLink in 2011) in 2008 from Embarq that had acquired United from Sprint in 2006.

Source: Developed by LBFC staff from data provided by the Pennsylvania Public Utility Commission and Pennsylvania Telephone Association.

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While an increasing number of Pennsylvania's ILECs are under the same parent company due to acquisitions and mergers, Pennsylvania continues to list 37 ILECs as the PUC continues to individually certify the 37 ILECs. Exhibit 5 shows the corresponding telephone coverage areas throughout the Commonwealth of the 37 ILECs, including the two nonrural ILECs (Verizon PA, and Verizon North) and where applicable, also reflects the name of the parent company.

Exhibit 5



Source: Pennsylvania Telephone Association.

## **B. Confirmation Incumbent Local Exchange Carrier Requirements Were Satisfied**

Amended Chapter 30 provisions required each ILEC to provide written notice of its election to file an amended network modernization plan (NMP), to file amended NMPs with the PUC, and to provide copies of the same to the Pennsylvania Offices of Consumer Advocate (POCA) and Small Business Advocate (OSBA). The PUC, POCA, and OSBA individually confirmed that they had received both the written notice of the election and the amended NMP submitted by each of the 37 ILECs as they all made the election.

ILECs were also required to file NMP biennial reports with the PUC, which we confirmed by reviewing copies of the reports filed by each ILEC.<sup>39</sup> PUC staff, in consultation with ILECs, developed an NMP biennial report checklist that consisted of the following required six items:<sup>40</sup>

1. Executive Summary and Discussion.
2. NMP Key Plan Components Status Sheet.
3. DSL Deployment Sheets.
4. Broadband Deployment Status Sheets.
5. Network Modernization Investment Status.
6. The 13 Guidelines Status and Compliance (see below).

PUC adopted a motion instructing staff to solicit comments from interested parties to assist in developing reporting guidelines/information requirements in relation to the NMP biennial reports under the original Chapter 30 provisions. This resulted in the establishment of Chapter 30 Biennial Update Reporting Guidelines for Local Exchange Carriers (13 Guidelines Status and Compliance), to which an ILEC is required to respond and include as the sixth item in its NMP biennial reports. The 13 Guidelines Status and Compliance require the following information be reported:

1. Specific information on how many customers are buying broadband service by class of customer (i.e., business, residential, and institutional) and by region or geographical area within each service territory.
2. Type of broadband service customers are actually subscribing to, including speed.
3. Present and projected upgrades to switches, fiber deployment, intelligent signaling.

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<sup>39</sup> Both the original Chapter 30 provisions in section 3003(b)(6) and amended Chapter 30 provisions in section 3014(f) required each ILEC to file NMP biennial reports.

<sup>40</sup> The PUC subsequently revised its NMP biennial report check list so that it provided more detailed guidance in relation to the six items to encourage more consistency in the way ILECs reported information.

4. Explain the ILEC's planned architecture for its broadband network.
5. Project the ILEC's deployment schedule.
6. Identify broadband availability in or adjacent to public rights-of-way abutting health care facilities, public schools, and industrial parks.
7. Describe how the ILEC is meeting its commitment made to achieve reasonably balanced broadband availability in rural, suburban, and urban areas within its service territory.
8. Provide the level of capital investment made to develop the broadband network for ILECs providing telephone service with over 50,000 access lines or which have gross intrastate operating revenues in excess of \$20 million per year.
9. Provide specific information as determined by PUC staff for ILECs providing telephone service with less than 50,000 access lines or which have gross intrastate operating revenues less than \$20 million per year.
10. Report on joint ventures.
11. Report on the status of products and services that enhance the quality of life for those with disabilities.
12. NMP biennial reports do not eliminate the obligation of an ILEC to provide any other report required under the Pennsylvania Public Utility Code or PUC regulations.
13. Proprietary information will be protected so as not to adversely impact competitively sensitive information in NMP biennial reports by allowing ILECs to file under seal when appropriate.

According to PUC officials, it did not conduct field visits due to monetary and time costs, coupled with the inability to verify broadband access or the type of service provided for in Chapter 30 via a site visit to a customer's physical address. Instead, the PUC primarily utilized and reviewed the NMP biennial reports, filed by the ILECs under oath, to affirm ILECs satisfied the requirement of 100 percent availability of broadband service at 1.544 Mbps/128 Kbps within 10 business days of a customer's request.<sup>41</sup> PUC staff review of NMP biennial reports was subject to both peer review and standard chain-of-command review (staff person --> supervisor --> manager --> bureau director). Data from each of the biennial reports was entered into tracking files and metrics were developed to monitor the progress being made towards the various milestones and availability dates committed to by the respective ILECs.<sup>42</sup> Any anomalies or inconsistencies were addressed with the respective ILEC and resulted in the submission of numerous revised reports.

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<sup>41</sup> The PUC noted the investigation of any potential issues was typically driven by customer complaints. It was further noted by the PUC that such complaints typically involved cost and quality of service issues, which were not addressed by Chapter 30.

<sup>42</sup> PUC metrics utilized data reported by ILECs in their respective NMP biennial reports to look at changes in broadband availability in rural, suburban, and urban exchanges and overall progress made during each period toward 100 percent availability, etc.

LBFC obtained and reviewed copies of the amended NMPs for each Pennsylvania ILEC to confirm they had been filed and complied with the broadband parameters of Chapter 30. LBFC also reviewed copies of the NMP biennial reports, including the final proprietary NMP biennial reports, to confirm they had been filed and to affirm the broadband mandatory deployment provisions had been met by each ILEC.

Compliance with the Chapter 30 mandatory broadband mandates by Pennsylvania ILECs was further affirmed by our conversations with the PUC, DCED, and ILECs.<sup>43</sup>

PUC conducted only one audit of a Pennsylvania ILEC as authorized by Chapter 30. It was an external audit conducted by an outside consultant (The Liberty Consulting Group) and the genesis for this audit was PUC's May 15, 2002, rejection of Verizon PA's 2000 NMP biennial report update. The PUC subsequently issued an order (dated September 17, 2003) directing its Bureau of Audits, in conjunction with the Law Bureau and the Bureau of Fixed Utility Services, to prepare a recommendation to the PUC detailing the nature and scope of an appropriate audit plan regarding the NMPs of Verizon PA and other ILECs. The PUC further specified the recommendation address the appropriate reporting process, auditing procedures and types of information that ILECs would need to file with the PUC so that the progress of each Chapter 30 NMP could be adequately tracked and independently verified. The PUC in its final order (dated October 28, 2005) regarding the monitoring and enforcement of NMPs pursuant to its rejection of the Verizon PA 2000 NMP biennial report update, stated:

*In directing such a recommendation [pursuant to PUC order entered September 17, 2003], the Commission [PUC] was determined to ensure that the public had full confidence in the representations made by the telecommunications carriers [ILECS] in their respective network modernization filings through an audit program that independently verifies the reported progress of each Chapter 30 plan.*

During a public meeting on March 23, 2005 the PUC had a proposed Tentative Order setting forth details for an audit of Verizon PA's NMP before it for consideration. However, due to recent Chapter 30 statutory changes pursuant to Act 2004-183, the PUC determined further evaluation was necessary to determine the best way to fulfill the PUC's statutory roll of monitoring and enforcing ILEC broadband availability compliance pursuant to the modified Chapter 30 provisions regarding accelerated broadband deployment. Thereafter, the PUC entered an order on April

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<sup>43</sup> Representatives of the POCA also affirmed that Chapter 30 has been successful in providing Pennsylvania residents with accelerated broadband service at 1.544 Mbps/128 Kbps, although the PUC noted that from their perspective some areas of concern remain in that customers had expressed concerns about affordability and reliability.

15, 2005, to gather information needed to develop a useful, comprehensive, and appropriate NMP monitoring and enforcement program in accordance with Act 2004-183. In particular, it sought comments from interested parties addressing the nature, extent, funding, and timing of any enforcement program that may be needed to independently verify each ILEC's deployment of broadband as reported in its NMP updates. Ultimately, the PUC's October 28, 2005 final order provided the following:

- PUC had the authority under the Public Utility Code to perform an investigative type audit for the purpose of independently verifying, with outside experts, the reported progress of any ILEC's Chapter 30 NMP, and to require the audited ILEC to pay for the audit.
- Funding for Verizon PA's amended NMP audits in 2007 (and beyond) was to come from any unencumbered monies remaining as of June 30, 2005, in the Escrow Fund established by the PUC's April 11, 2001 Order in the Verizon PA, Structural Separation proceeding at M-00001353.<sup>44</sup>
- Under the circumstances it was determined it was best to defer the Verizon PA audit until its 2007 biennial NMP report was filed.

Verizon PA filed its sixth biennial NMP report on July 2, 2007, which reported on its progress in meeting its Chapter 30 broadband commitments during 2005 and 2006. The PUC, pursuant to its October 28, 2005, final order, issued a Request for Proposal (RFP-2006-3) on November 21, 2006, with the principal purpose of the audit being to assess whether Verizon PA's sixth biennial report was accurate and the reported results demonstrated compliance with the PUC's reporting guidelines, NMP-related orders, and Act 2004-183. A contract was awarded to a private consultant for the external audit, which began on June 26, 2007, and resulted in the "Final Report for the Audit of Verizon Pennsylvania, Inc.'s Network Modernization Plan Implementation Progress" (June 16, 2008).

The audit report proposed a number of recommendations and made the following overall conclusions:

- Verizon PA met its NMP commitments through 2006, except regarding its commitment to make broadband facilities available in or adjacent to the nearest right-of-way for public schools, health care facilities, and industrial parks.
- Verizon PA complied with PUC's NMP reporting guidelines, however, the quality and usefulness of some of the information reported was questioned.

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<sup>44</sup> PUC's final order further indicated that each ILEC was ultimately responsible to pay any investigation (including audit) costs. Thus, Verizon PA would have been responsible for any 2007 audit costs not covered by the Verizon PA Escrow Fund.



- The report noted there were a number of flaws in the information reported (e.g., some erroneously reported numbers, some reported quantities based on assumptions rather than supported by analysis, and procedural inadequacies in the reporting). Additionally, some aspects of Verizon PA's reporting procedures provided an incomplete or misleading picture of compliance with its NMP commitments.
- Verizon PA may need to explore alternative approaches to providing broadband service other than the types it was currently using and/or commit a larger share of its capital investment to other technologies in order to meet 100 percent broadband availability by 2015.

On July 31, 2008, Verizon PA submitted responses to the audit report and indicated agreement or partial agreement with most of the report's recommendations to improve data gathering and reporting, although it disagreed with some recommendations (e.g., to mechanize its fiber facility records and conduct an extensive manual audit of its working and spare fiber facilities, and to discount Verizon PA's reported broadband availability percentages as a penalty to reflect that it failed to fill 100 percent of orders within 10 days of a customer's request, etc.).

PUC noted in a subsequent letter, dated September 2008, to Verizon PA, that the PUC is responsible for monitoring Verizon PA's compliance with its NMP obligations under Chapter 30 and is further empowered to require customer refunds pursuant to section 3015(a)(2) if the ILEC is found, after notice and opportunity to be heard, to have failed to meet its NMP commitments.<sup>45</sup> The PUC letter further stated:

*Accordingly, accurate reporting of an ILEC's progress in meeting its NMP obligations is an essential component of this statutory framework. Therefore, the PUC will convene a workshop to address and resolve the NMP reporting issues and recommendations that still remain unresolved.*

Ultimately, the PUC convened a number of workshops in 2008 and 2009 to address the unresolved recommendations in the audit report, which resulted in PUC releasing a "joint report," dated January 2009, that resolved several outstanding issues from the audit report. The joint report contained agreements between PUC staff and Verizon PA that established reporting benchmarks for measuring Verizon's performance on broadband network modernization until 2012, at which time PUC and

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<sup>45</sup> September 28, 2008, is also the date the PUC held a public meeting during which it released the Liberty audit report along with the Verizon PA response to the report.

Verizon PA agreed to reconvene to establish benchmarks for future biennial report updates. The joint report also resolved additional issues, including:

- Creating a method to assess Verizon's spare fiber capacity.
- Establishing reporting and provisioning commitment benchmarks for broadband facilities and service deployment.
- Mechanizing the broadband facilities deployment counting process to provide a more accurate reporting of broadband availability.
- Continuing to use access lines to calculate broadband availability.
- More clearly defining reporting requirements and reported results.

The PUC staff held two workshops with Verizon PA in the latter part of 2012, which resulted in the adoption of the provisioning benchmarks for NMP reporting periods ending 2014 and 2015.

The PUC indicated the reason it did not conduct more audits of Pennsylvania ILECs subject to the broadband availability provisions of Chapter 30 was twofold: 1) Verizon PA is, by far, the largest ILEC in Pennsylvania in terms of revenues, access lines, and service territory; and 2) cost of these types of audits is very prohibitive, and the PUC staff lacked the internal resources and technical expertise to conduct this type of audit internally.<sup>46</sup>

Like the 2007 Verizon PA audit report that found Verizon PA had met its NMP commitments at that point in time, LBFC's review of the final NMP biennial reports filed by each ILEC confirmed that all the ILECs had satisfied their mandatory broadband deployment commitments.

Exhibit 6 reflects how each Pennsylvania ILEC met its 100 percent broadband availability commitment as was reported in its respective amended NMP and final biennial NMP report filed with the PUC pursuant to Chapter 30.

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<sup>46</sup> The balance of the Verizon PA Escrow Fund was approximately \$800,000 (as of October 27, 2005) and continued to accrue interest sufficient to cover the 2007 Verizon PA audit cost of \$902,067.31.

Exhibit 6

<b>Pennsylvania Incumbent Local Exchange Carriers (ILECs) Broadband Commitments Met</b>				
<b>PA ILECs</b> (as of 12/31/2015)*	<b>Date Met 100% Commitment</b>	<b>Number of Access Lines &amp; Customers</b> (as of 12/31/2008, 12/31/2013, & 12/31/2015)**	<b>County Served</b>	<b>Broadband Technology Used</b>
Windstream PA	12/31/2013 (& 80% by 12/31/2010)	Access Lines (84 exchanges): 141,308  No. of Customers: 141,308 <ul style="list-style-type: none"> <li>• 104,874 Residential</li> <li>• 36,434 Business</li> </ul>	29 of PA's 67 counties (i.e., Allegheny, Armstrong, Beaver, Blair, Cambria, Cameron, Carbon, Centre, Clarion, Clearfield, Crawford, Elk, Erie, Forest, Greene, Huntingdon, Indiana, Jefferson, Lawrence, Lycoming, McKean, Mercer, Northumberland, Schuylkill, Union, Venango, Warren, Washington, & Westmoreland)	DSL (ADSL & VDSL) along with satellite (wireless) (via <b>joint venture agreement</b> with DISH Network – 3/5/2010)  [Note: DSL was the primary broadband platform used, but other technologies were also utilized.]
Armstrong-North	12/31/2008	Access Lines (1 exchange): 484  No. of Customers: 466 <ul style="list-style-type: none"> <li>• 443 Residential</li> <li>• 23 Business</li> </ul>	McKean	DSLAM  [Note: Also making necessary investment in facilities and the build out of fiber plant to provide broadband availability to its customer base.]
Armstrong-PA	12/31/2008	Access Lines (1 exchange): 1,468  No. of Customers: 1,332 <ul style="list-style-type: none"> <li>• 1,167 Residential</li> <li>• 165 Business</li> </ul>	Allegheny Beaver Washington	DSLAM  [Note: Also making necessary investment in facilities and the build out of fiber plant to provide broadband availability to its customer base.]
Verizon PA <sup>a</sup>	12/31/2015	Access Lines (386 exchanges): 2,228,236  No. of Customers: NA – However, the number would be something less than the total number of access lines, as some individual customers have multiple access lines. The estimated percentage	Verizon PA and Verizon North had a combined footprint in 58 of PA's 67 counties, which does <u>not</u> include the following nine PA counties: (i.e., Franklin, Fulton, Greene, Juniata, Perry,	High Speed Internet (HSI) (formerly known as xDSL) & FIOS (fiber-optic) where Fiber-to-the-Premise (FTTP) has been deployed along with 4G Long Term Evolution (LTE) Wireless via Radio

Exhibit 6 Continued

		breakdown of customers was (as of 12/31/2015): <ul style="list-style-type: none"> <li>• 65% Residential</li> <li>• 35% Business</li> </ul>	Sullivan, Susquehanna, Union, and Wyoming)	Link (via <b>joint venture agreement</b> with Verizon Wireless – 12/20/2012) and satellite (wireless) (via <b>joint venture agreement</b> with HughesNet – June 2015)
Bentleyville (Fairpoint Communications, 2005)	12/31/2008	Access Lines (1 exchange): 2,594  No. of Customers: 2,594 <ul style="list-style-type: none"> <li>• 1,979 Residential</li> <li>• 615 Business</li> </ul>	Washington	DSL and Cable Modem  [Note: Also making necessary investment in facilities and the build out of fiber plant to provide broadband availability to its customer base.]
Windstream Buffalo Valley	12/31/2008	Access Lines (2 exchanges): 18,845  No. of Customers: 14,462 <ul style="list-style-type: none"> <li>• 12,622 Residential</li> <li>• 1,840 Business</li> </ul>	Northumberland Union	ADSL & Fiber-to-the-Premise (FTTP)  [Note: Also making necessary investment in facilities and the build out of fiber plant to provide broadband availability to its customer base.]
Citizens Kecksburg	12/31/2008	Access Lines (1 exchange): 4,406  No. of Customers: NA - However, the number would be something less than the total number of access lines, as some individual customers have multiple access lines.	Westmoreland	DSL (e.g., ADSL & HDSL)  [Note: Fiber deployment between all major switching nodes.]
Citizens Telecommunications of NY	Granted Waiver			
Frontier Communications Commonwealth	12/31/2008	Access Lines (79 exchanges): 267,543  No. of Customers: 209,000 <ul style="list-style-type: none"> <li>• 185,000 Residential</li> <li>• 24,000 Business</li> </ul>	17 of PA's 67 counties (i.e., Berks, Bradford, Bucks, Columbia, Dauphin, Lackawanna, Lehigh, Luzerne, Lycoming, Monroe, Northampton, Schuylkill, Sullivan, Susquehanna, Tioga, Wyoming, & York)	DSL (e.g., ADSL & HDSL)  [Note: Fiber deployment between all major switching nodes.]

Exhibit 6 Continued

Windstream Conestoga	12/31/2008	Access Lines (9 ex-change): 48,732  No. of Customers: 37,628 <ul style="list-style-type: none"> <li>• 33,897 Residential</li> <li>• 3,731 Business</li> </ul>	Berks Chester Lancaster Montgomery	ADSL & Fiber-to-the-Premise (FTTP)  [Note: Also making necessary investment in facilities and the build out of fiber plant to provide broadband availability to its customer base.]
Windstream D&E	12/31/2008	Access Lines (6 ex-change): 51,525  No. of Customers: 38,442 <ul style="list-style-type: none"> <li>• 33,764 Residential</li> <li>• 4,678 Business</li> </ul>	Berks Lancaster Lebanon	ADSL & Fiber-to-the-Premise (FTTP)  [Note: Also making necessary investment in facilities and the build out of fiber plant to provide broadband availability to its customer base.]
TDS - Deposit Telephone of NY	Granted Waiver			
Frontier Communications of Breezewood	12/31/2008	Access Lines (4 ex-changes): 3,863  No. of Customers: 3,554 <ul style="list-style-type: none"> <li>• 3,101 Residential</li> <li>• 453 Business</li> </ul>	Bedford Fulton	DSL  [Note: Deployed fiber optics within the network.]
Frontier Communications of Canton	12/31/2008	Access Lines (2 ex-changes): 3,829  No. of Customers: 3,433 <ul style="list-style-type: none"> <li>• 2,963 Residential</li> <li>• 470 Business</li> </ul>	Bradford Lycoming Tioga	DSL  [Note: Deployed fiber optics within the network.]
Frontier Communications of Lakewood	12/31/2008	Access Lines (1 ex-change): 1,388  No. of Customers: 1,184 <ul style="list-style-type: none"> <li>• 1,027 Residential</li> <li>• 157 Business</li> </ul>	Schuylkill	DSL  [Note: Deployed fiber optics within the network.]
Frontier Communications of Oswayo River	12/31/2008	Access Lines (3 ex-changes): 1,998  No. of Customers: 1,817 <ul style="list-style-type: none"> <li>• 1,561 Residential</li> <li>• 256 Business</li> </ul>	McKean Potter	DSL  [Note: Deployed fiber optics within the network.]

Exhibit 6 Continued

Frontier Communications of PA	12/31/2008	Access Lines (10 exchanges): 22,673  No. of Customers: 17,289 <ul style="list-style-type: none"> <li>• 13,086 Residential</li> <li>• 4,203 Business</li> </ul>	Berks Chester Lancaster	DSL  [Note: Deployed fiber optics within the network.]
Verizon North <sup>a</sup>	12/31/2015	Access Lines (116 exchanges): 228,823  No. of Customers: NA - However, the number would be something less than the total number of access lines, as some individual customers have multiple access lines. The estimated percentage breakdown of customers was (as of 12/31/2015): <ul style="list-style-type: none"> <li>• 65% Residential</li> <li>• 35% Business</li> </ul>	Verizon North and Verizon PA had a combined footprint in 58 of PA's 67 counties, which does <u>not</u> include the following nine PA counties: (i.e., Franklin, Fulton, Greene, Juniata, Perry, Sullivan, Susquehanna, Union, and Wyoming)	High Speed Internet (HSI) (formerly known as xDSL) & FIOS (fiber-optic) where Fiber-to-the-Premise (FTTP) has been deployed along with 4G Long Term Evolution (LTE) Wireless via Radio Link (via <b>joint venture agreement</b> with Verizon Wireless – 12/20/2012) and satellite (wireless) (via <b>joint venture agreement</b> with HughesNet – June 2015)
Hancock (New York)	Granted Waiver			
Hickory	12/31/2008	Access Lines (1 exchange): 1,267  No. of Customers: 1,267 <ul style="list-style-type: none"> <li>• 1,010 Residential</li> <li>• 257 Business</li> </ul>	Washington	DSL  [Note: Also making necessary investment in facilities and the build out of fiber plant to provide broadband availability to its customer base.]
Ironton	12/31/2008	Access Lines (1 exchange): 4,746  No. of Customers: NA - However, the number would be something less than the total number of access lines, as some individual customers have multiple access lines.	Lehigh	DSL (e.g., ADSL, HDSL)  [Note: Also made investment in new fiber.]

Exhibit 6 Continued

Lackawaxen	12/31/2008	Access Lines (1 exchange): 3,155  No. of Customers: 2,973 <ul style="list-style-type: none"> <li>• 2,744 Residential</li> <li>• 199 Business</li> </ul>	Pike	ADSL (and supporting technologies)
Laurel Highland	12/31/2008	Access Lines (2 exchanges): 4,971  No. of Customers: 4,352 <ul style="list-style-type: none"> <li>• 3,917 Residential</li> <li>• 435 Business</li> </ul>	Fayette Westmoreland	Fiber-to-the-Premise (FTTP)  [Note: Also making necessary investment in facilities and the build out of fiber plant to provide broadband availability to its customer base. 50% of its access lines also had DSL available.]
Marianna & Scenery Hill (Fairpoint Communications, 2001)	12/31/2008	Access Lines (2 exchanges): 2,196  No. of Customers: 2,196 <ul style="list-style-type: none"> <li>• 1,986 Residential</li> <li>• 210 Business</li> </ul>	Washington	DSL  [Note: Also making necessary investment in facilities and the build out of fiber plant to provide broadband availability to its customer base.]
North Eastern PA	12/31/2008	Access Lines (8 exchanges): 11,115  No. of Customers: 9,847 <ul style="list-style-type: none"> <li>• 9,016 Residential</li> <li>• 831 Business</li> </ul>	Lackawanna Susquehanna Wayne	DSL  [Note: Also making necessary investment in facilities and the build out of fiber plant to provide broadband availability to its customer base.]
North Penn	12/31/2008	Access Lines (3 exchanges): 5,279  No. of Customers: 4,988 <ul style="list-style-type: none"> <li>• 4,504 Residential</li> <li>• 484 Business</li> </ul>	Bradford Tioga	ADSL (plus technology)
Consolidated Communications of Pennsylvania (North Pittsburgh prior to 2007)	12/31/2008	Access Lines (8 exchanges): 54,130  No. of Customers: 37,466 <ul style="list-style-type: none"> <li>• 31,155 Residential</li> <li>• 6,311 Business</li> </ul>	Allegheny Armstrong Butler Westmoreland	DSL (and other high-speed communications channels)  [Note: Also making necessary investment in facilities and the build out of fiber plant to provide broadband availability to its customer base.]

Exhibit 6 Continued

Palmerton	12/31/2008	Access Lines (4 ex-changes): 9,347  No. of Customers: 7,876 <ul style="list-style-type: none"> <li>• 7,082 Residential</li> <li>• 794 Business</li> </ul>	Carbon Monroe	DSL (and traditional technology)  [Note: Also making necessary investment in facilities and the build out of fiber plant to provide broadband availability to its customer base.]
Pennsylvania	12/31/2008	Access Lines (1 exchange): 1,331  No. of Customers: 1,215 <ul style="list-style-type: none"> <li>• 1,138 Residential</li> <li>• 77 Business</li> </ul>	Clinton Lycoming	DSL  [Note: Also making necessary investment in facilities and the build out of fiber plant to provide broadband availability to its customer base.]
Pymatuning	12/31/2008	Access Lines (1 exchange): 2,239  No. of Customers: 1,389 <ul style="list-style-type: none"> <li>• 1,269 Residential</li> <li>• 120 Business</li> </ul>	Mercer	DSL  [Note: Also making necessary investment in facilities and the build out of fiber plant to provide broadband availability to its customer base.]
South Canaan	12/31/2008	Access Lines (2 exchanges): 2,584  No. of Customers: 2,549 <ul style="list-style-type: none"> <li>• 2,186 Residential</li> <li>• 363 Business</li> </ul>	Lackawanna Wayne	DSL  [Note: Also making necessary investment in facilities and the build out of fiber plant to provide broadband availability to its customer base.]
TDS – Mahanoy & Mahantango	12/31/2008	Access Lines (3 exchanges): 3,667  No. of Customers: 3,667 <ul style="list-style-type: none"> <li>• 3,079 Residential</li> <li>• 588 Business</li> </ul>	Dauphin Northumberland Schuylkill	DSL  [Note: No plans to deploy additional fiber at this time.]
TDS – Sugar Valley	12/31/2008	Access Lines (1 exchange): 1,063  No. of Customers: 1,063 <ul style="list-style-type: none"> <li>• 904 Residential</li> <li>• 159 Business</li> </ul>	Clinton	DSL  [Note: No plans to deploy additional fiber at this time.]



Exhibit 6 Continued

<p>United Telephone Company of Pennsylvania (CenturyLink, 2008/Embarq, 2006/Sprint)</p>	<p>12/31/2013 (&amp; 80% by 12/31/2010)</p>	<p>Access Lines (92 exchange): 195,147</p> <p>No. of Customers: 163,431</p> <ul style="list-style-type: none"> <li>• 145,807 Residential</li> <li>• 17,624 Business</li> </ul>	<p>25 of PA's 67 counties (i.e., Adams, Armstrong, Beaver, Bedford, Blair, Butler, Centre, Clarion, Clinton, Cumberland, Dauphin, Franklin, Fulton, Huntingdon, Juniata, Lancaster, Lawrence, Lebanon, Mercer, Mifflin, Perry, Snyder, Somerset, Venango, &amp; York)</p>	<p>DSL along with 4G Long Term Evolution (LTE)</p> <p>Wireless via Radio Link (via joint venture agreement with Verizon Wireless that leveraged an existing agreement) and satellite (wireless) (via <b>joint venture agreement</b> with HughesNet that leveraged an existing agreement and was available as of May 2013)</p> <p>[Note: Deployed fiber optics in the interchange network.]</p>
<p>Venus</p>	<p>12/31/2008</p>	<p>Access Lines (1 exchange): 1,246</p> <p>No. of Customers: 1,101</p> <ul style="list-style-type: none"> <li>• 1,036 Residential</li> <li>• 65 Business</li> </ul>	<p>Clarion Forest Venango</p>	<p>DSL</p> <p>[Note: Also making necessary investment in facilities and the build out of fiber plant to provide broadband availability to its customer base.]</p>
<p>West Side (West Virginia)</p>	<p style="color: red;">Granted Waiver</p>			
<p>Yukon Waltz</p>	<p>12/31/2008</p>	<p>Access Lines (1 exchange): 806</p> <p>No. of Customers: 733</p> <ul style="list-style-type: none"> <li>• 610 Residential</li> <li>• 123 Business</li> </ul>	<p>Westmoreland</p>	<p>DSL</p> <p>[Note: Also making necessary investment in facilities and the build out of fiber plant to provide broadband availability to its customer base.]</p>

Exhibit 6 Continued

Note:

- Rows highlighted in “yellow” indicate the RLEC is one of two (i.e., CenturyLink, and Windstream PA) that selected Option 2 (December 31, 2013).
- Rows highlighted in “gray” indicates the nonrural ILEC is one of two (i.e., Verizon North, and Verizon PA) that selected Option 3 (December 31, 2015).
- Rows highlighted in “green” indicate one of four ILECs “granted waiver” from filing a Chapter 30 NMP.

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\* The information within this exhibit is presented under the name of the PA ILEC as certified by the PUC as of 12/31/2015.

\*\* The number of access lines and number of customers may differ as a customer may have more than one access line.

<sup>a</sup> Verizon PA and Verizon North collectively entered into joint venture agreements with both Cellco Partnership d/b/a Verizon Wireless and Hughes Network Systems, LLC d/b/a HughesNet to provide limited broadband services to fulfill their respective Chapter 30 commitments. It was also indicated that Verizon PA and Verizon North rarely defaulted to satellite (wireless) via HughesNet to meet Chapter 30 broadband access requirements.

Source: Developed by LBFC staff from data provided by the Pennsylvania Incumbent Local Exchange Carriers (either individually or via the Pennsylvania Telephone Association).

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## C. Maps of Pennsylvania Broadband Coverage

Chapter 30 required DCED to publish (including on its website)<sup>47</sup> an inventory of available advanced and broadband services by general location and called for the cooperation of all providers of such services.<sup>48</sup> DCED and the Pennsylvania Office of Administration (OA), with the help of an outside consultant, further developed their broadband mapping to achieve the parallel mapping objectives of the State Broadband Data and Development (SBDD) program administered by the U.S. Department of Commerce, National Telecommunications and Information Association

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<sup>47</sup> DCED primarily published and continues to publish an inventory and maps of Pennsylvania advanced and broadband services on its website, because of the ever changing nature of the data.

<sup>48</sup> Chapter 30 required all providers of advanced and broadband services to cooperate with DCED in this inventory and mapping endeavor. However, only Pennsylvania ILECs were in fact subject to Chapter 30 provisions and PUC oversight. As a result of other broadband providers (e.g., wireless via radio link, satellite (wireless), etc.) not being subject to Chapter 30 provisions, DCED indicated it experienced some challenges in obtaining the full cooperation from some of the other broadband providers. In all, DCED estimated that approximately 80 percent of broadband providers cooperated between the Pennsylvania ILECs subject to Chapter 30 requirements and other providers that voluntarily provided data.

(NTIA). The Commonwealth of Pennsylvania received federal grant money for use over a five year period (2010-2014).<sup>49</sup> The broadband data collected by DCED for Pennsylvania represented a collection of comprehensive data on the availability, type, and speed of broadband service by provider down to the street segment or census block in accordance with the NTIA SBDD program standards. The data also included a listing of community anchor institutions (i.e., K-12 Schools, libraries, post-secondary schools, police departments, hospitals, health departments, other non-governmental institutions, and other governmental institutions) with details of the broadband connectivity in use at those locations. This data was utilized in conjunction with broadband data collected by other states for the creation of a national broadband map launched in 2011, which was in addition to the DCED inventory and mapping website maintained by DCED.

Exhibit 7 shows a series of three maps produced by DCED based on broadband data submitted pursuant to parallel efforts under Act 2004-183 and the NTIA SBDD program by all providers (Pennsylvania ILECs and other providers) which provide a geographic representation of broadband coverage (excluding satellite (wireless) provider data) as of October 1, 2014.<sup>50</sup>

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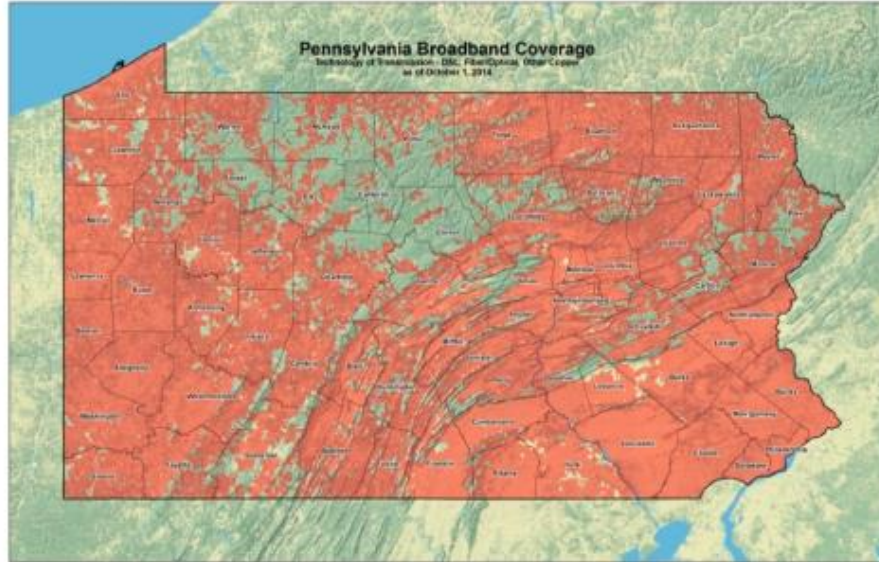
<sup>49</sup> In 2010, Pennsylvania was awarded \$7,356,301 in NTIA, SBDD funding (\$3,805,567 for broadband mapping and \$3,550,734 for broadband planning, collaboration, and technical assistance over a five year period 2010-14). Pennsylvania provided \$2,168,400 in match funding for this project, for a total project cost of \$9,524,701.

<sup>50</sup> These maps reflect what was available from the DCED produced maps, developed from the broadband inventory data it collected in relation to Act 2004-183; DCED's broadband website ([www.broadbandinpa.com](http://www.broadbandinpa.com)) from that time period is no longer available. While these maps reflect broadband provided by both Pennsylvania ILECs and other providers, this series of maps provides some perspective in terms of general broadband access available towards the end of 2014, as the Chapter 30 December 31, 2015 deadline approached. DCED maintains a Broadband Resources page on its website (<https://dced.pa.gov/broadband-resources/>) that can generate more current broadband service coverage maps. However, the maps are based on broadband data as of 2017, including both Pennsylvania ILECs and other providers, and reflects broadband data reported on FCC form 477 based on block reporting. See Appendix C for a series of maps to provide a general perspective in terms of broadband access availability at a moment in time subsequent to the Chapter 30, December 31, 2015 deadline.

Exhibit 7

**Series of Pennsylvania Broadband Coverage Maps**

REPORTED WIRELINE/DSL COVERAGE:



REPORTED CABLE COVERAGE:

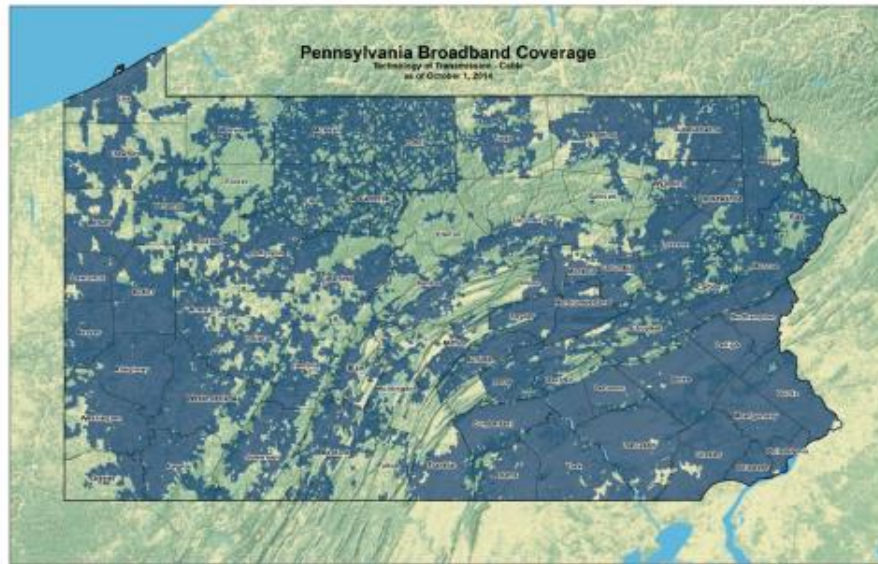
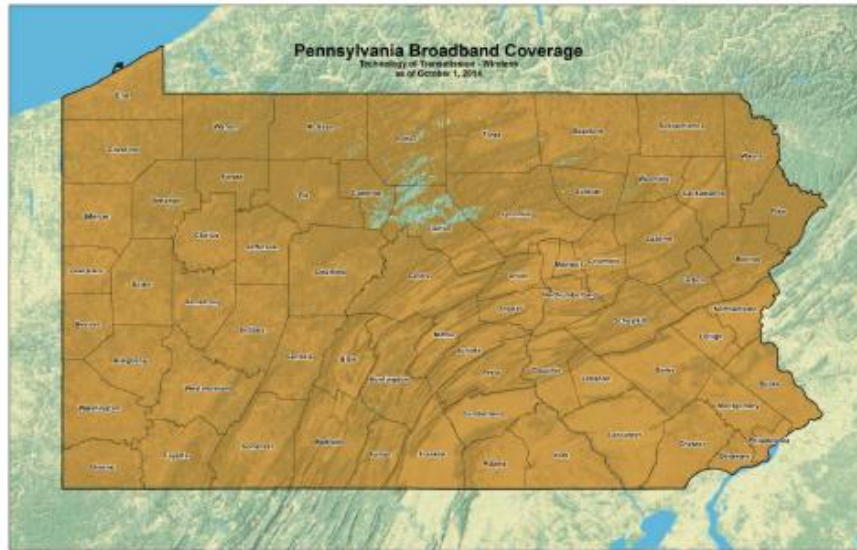


Exhibit 7 Continued

REPORTED WIRELESS COVERAGE:



Notes:

- The "Reported Wireline/DSL Coverage" map reflects DSL, Fiber Optical, and Other Copper (as shown in red), which all represent fixed technology.
- The "Reported Cable Coverage" map reflects Cable (as shown in blue), which represents fixed technology.
- The "Reported Wireless Coverage" map in concept reflects both terrestrial (land based) fixed and mobile wireless via radio link broadband coverage (as shown in orange), although in reality this map reflects only mobile wireless via radio link in that later generated DCED fixed wireless via radio link maps (based on FCC data) indicated no fixed wireless in Pennsylvania until 2018.

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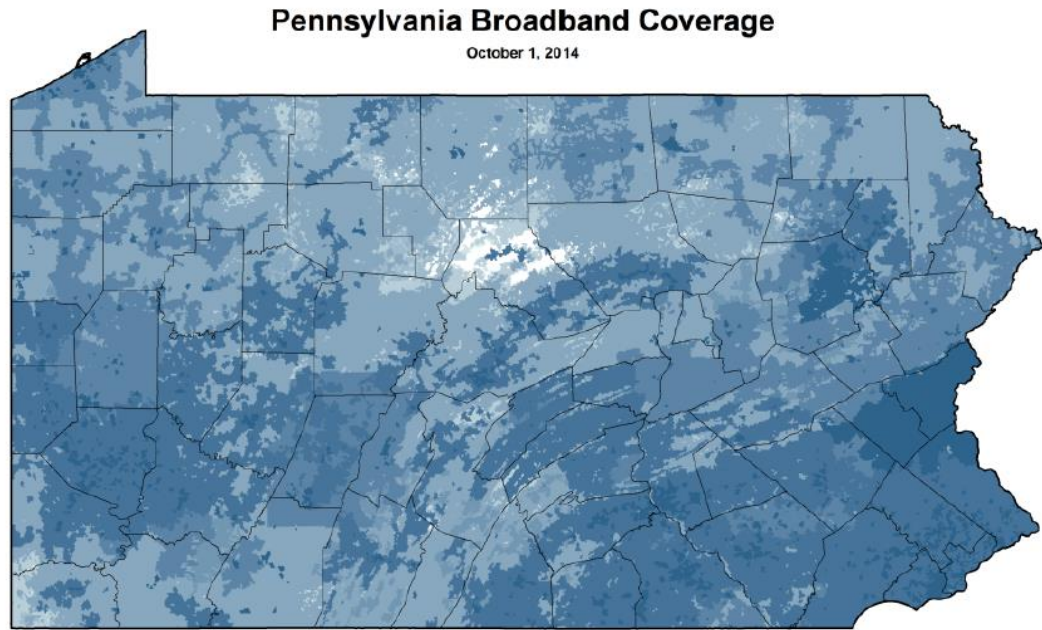
Source: Department of Community and Economic Development and Pennsylvania Office of Administration.

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The Pennsylvania broadband speed tier coverage map, Exhibit 8, shows the maximum advertised download speeds from greater than or equal to 1.5 Mbps to greater than or equal to 1 gigabytes per second (Gbps), which, like the previous series of maps produced by DCED, is based on broadband data (excluding satellite (wireless) provider data) as of October 1, 2014.





Exhibit 8

**Pennsylvania Speed Tier Coverage Map**



**Legend**

**Maximum Advertised Downstream Speed**

 Greater than or equal to 1.5 mbps and less than 3 mbps	 Greater than or equal to 25 mbps and less than 50 mbps
 Greater than or equal to 3 mbps and less than 6 mbps	 Greater than or equal to 50 mbps and less than 100 mbps
 Greater than or equal to 6 mbps and less than 10 mbps	 Greater than or equal to 100 mbps and less than 1 gbps
 Greater than or equal to 10 mbps and less than 25 mbps	 Greater than or equal to 1 gbps

Note: The “white” spacing reflects areas that had no broadband coverage available from any source are primarily reflective of state or national forest land that had no residential or business addresses.

Source: Department of Community and Economic Development and Pennsylvania Office of Administration.

## **D. Affirmed Chapter 30 Only Required ILECs to Provide Access to Broadband (1.544 Mbps/128 Kbps) within 10 Business Days of Request Using Any Technology**

The original Chapter 30 legislation was often referred to as the “fiber optics bill” and the related catch phrase used at the time was “fiber to the home,” however, neither the original Chapter 30 (Act 1993-67), nor the amended Chapter 30 (Act 2004-183) provisions specified any particular type of broadband technology was to be used by Pennsylvania ILECs. In fact, the Chapter 30 definition of “broadband” specifically states “any technology,” and section 3014(n)(1) provides that the PUC does not have the authority to require an ILEC to provide a specific service or to deploy a specific technology.

The PUC affirmed in both its tentative and final orders in response to a Joint Petition (Ebersole and POCA) filed with regard to Verizon PA that Chapter 30, alternative form regulation of telecommunication services, only required Pennsylvania ILECs to provide access to broadband at a minimum speed of 1.544 Mbps/128 Kbps and that the ILECs could use any broadband technology of their choosing to do so. The PUC noted the law does not authorize the PUC to require an ILEC to deploy a specific type of broadband service, or deploy a specific technology, set a specific price for retail broadband access service, or prohibit an ILEC from using a joint venture to provide its retail access service.<sup>51</sup>

## **E. Current Status of Chapter 30**

The statutory goals and regulatory authority of Chapter 30 (66 Pa.C.S. §§ 3010-3019) established pursuant to Act 2004-183 in relation to broadband deployment were essentially fulfilled upon reaching the stated final deployment date of December 31, 2015. The PUC continues to have some limited ongoing regulatory authority in relation to certain other provisions (e.g., sections 3016(b) declaration of retail nonprotected services as competitive, 3016(c) reclassification of services from competitive to noncompetitive, 3016(f) prohibition against using revenues or expenses from noncompetitive services to subsidize competitive services, etc.). A PUC commissioner testified during a hearing on broadband before the Pennsylvania Senate Communications and Technology Committee that its current statutory role in broadband advancement is minimal in that it has limited regulatory authority over ILECs’ deployment of broadband in terms of ensuring Chapter 30 broadband standards (1.544

<sup>51</sup> The PUC relied on the Chapter 30 definition of broadband (section 3012) and the provisions of section 3014(n)(1) & (2) to formulate this position.

Mbps/128 Kbps within 10 days of request) are maintained and has no regulatory authority over Internet service (regardless of the speed) or cable companies, wireless providers, or satellite operators.

Additional statutory authority would be needed to enhance broadband deployment or existing download/upload speeds, or to extend broadband deployment mandates to other providers of broadband (e.g., cable, wireless via radio link, satellite, (wireless), etc.).



## SECTION IV BONA FIDE RETAIL REQUEST PROGRAM (BFRR)



### Fast Facts...

- ❖ *Four ILECs implemented BFRR programs.*
- ❖ *BFRR programs allowed ILEC customers to obtain advanced services sooner than they may have otherwise received them in their localities.*
- ❖ *PUC partnered with DCED, POCA, and the affected ILECs on the implementation, monitoring, and promotion of BFRR programs.*
- ❖ *PUC had an obligation under the BFRR program to monitor and enforce compliance by participating ILECs.*

### Overview

This section analyzes the efforts by the Pennsylvania Public Utility Commission (PUC) and the Department of Community and Economic Development (DCED) to administer and assure compliance with the bona fide retail request (BFRR) program. Chapter 30 required Pennsylvania ILECs that chose options 2 or 3, as described in Section II of this report, to establish BFRR programs. The BFRR program allowed customers of these ILECs to obtain advanced services sooner than they may have otherwise received in their localities.

### A. Establishment of BFRR Program

The intent of a BFRR program was to aggregate and make advanced services available in areas where sufficient customer demand existed and to supplement existing network modernization plans prior to each ILEC's respective 100 percent broadband availability commitment.

Chapter 30 required ILECs that chose options 2 or 3 to implement BFRR programs in areas where they did not otherwise offer broadband service, within 90 days of the effective date of their amended network modernization plans.<sup>52</sup> Four ILECs were required to establish BFRR programs – Verizon PA and Verizon North, Pennsylvania's two nonrural ILECs that chose Option 3; and Windstream PA and CenturyLink, two rural ILECs, that chose Option 2. All other rural local exchange carriers (RLECs) chose Option 1, if they were otherwise not exempt, and were not required to establish a BFRR program (See Exhibit 4 in Section III of this report).

ILECs were required to submit to the PUC, program descriptions, sample request forms, and any forms or subscription agreements that customers would submit in connection with receiving advanced services. The four ILECs required to establish a BFRR program provided these forms to LBFC.

BFRR programs allowed ILEC customers to obtain advanced services sooner than they may have otherwise received them in their respective

<sup>52</sup> Act 2004-183 – 66 Pa.C.S. § 3014(c) (relating to bona fide retail request program).

communities. End-users eligible to make a bona fide retail request included individuals, businesses, local development districts, industrial development agencies, or any other entity seeking advanced services. The written request for services was submitted to the appropriate ILEC or DCED. As required by Chapter 30, all four ILECs developed descriptions of their BFRR programs and consumer forms for their respective BFRR programs. See Appendix D for examples of BFRR request forms.

In administering BFRR programs, ILECs were to establish websites and toll-free numbers to address customer inquiries regarding the program; mail a request form to a customer upon request; confirm receipt of any completed request, in writing, to the customer and identify the service requested; and provide customers with applicable rates, the contract term, the status of the request, and a term subscription agreement for execution. ILECS were also to notify the customers in a community, within 30 days of receipt of a bona fide request, of the expected date of the availability of the requester's service.

To be considered a bona fide retail request, a customer's written request for advanced service to an ILEC needed to include:

- A request with a minimum of 50 retail access lines or 25 percent of retail access lines within a community, whichever is less, with each end user to be provided the same advanced service or comparable advanced service.<sup>53</sup>
- The name, address, telephone number and signature of each existing retail customer requesting the advanced service, the advanced service being requested, and the number of access lines for which the advanced service is being requested.
- The name, address, and telephone number of a designated contact person where the request is made by or on behalf of more than one person or business.
- A commitment by each customer who signs the request to subscribe to the requested service for one year, subject to the ILEC's identification of the price and terms of the service, and the customer's agreement to the price and terms.

By submitting a BFRR request, customers were committing to subscribe to the requested service for one year. Upon receipt of the request, an ILEC was to provide service to a community as soon as possible, but no later than one year, unless an extension was granted by the PUC. Chap-

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<sup>53</sup> The number of working lines that go to individual customers within a community/customer service area (CSA) was used as the basis for determining the number of requests needed to trigger a BFRR utilizing the 25 percent threshold. For example, if a community service area had 18 working lines, Chapter 30 required a minimum of four requests (25 percent). ILEC landline customers are served by a specific exchange/central office that services a specific group of customers (e.g., downtown Harrisburg). Each exchange/central office is served by a wire center and each wire center consists of multiple customer service lines.

ter 30 required ILECs to aggregate individual requests for the same service within a community, once the minimum required number of requests were received.

## **B. Departmental Roles in the BFRR Program**

PUC and DCED oversaw the successful administration of the BFRR program. These efforts allowed customers of the four ILECs required to implement the BFRR program to obtain advanced service sooner than the mandated deadline for making broadband services available.

PUC had several responsibilities under Chapter 30 for the BFRR program:

- Receive from ILECs a written description of their programs, sample request for service forms, and forms of any advanced services term agreements for customers.
- Receive and approve/disapprove ILEC extension requests for up to 12 months.
- Receive semiannual reports from ILECs detailing the number of BFRR requests they received and the action taken on those requests.
- Monitor and enforce compliance by ILECs with their obligations under the BFRR program.

DCED's role in the BFRR program included that of advisor, educator, organizer, and intermediary. In its role, DCED:

- Provided feedback and guidance to ILECs as they implemented their BFRR programs to help them provide a good customer experience.
- Educated community and economic development partners about the program and how to use it to their maximum benefit.
- Facilitated the establishment and use of community champions/aggregators to ensure awareness of the BFRR program.
- Acted as an intermediary for connecting consumers, communities and aggregators with ILEC broadband providers as well as with the PUC and POCA.
- Convened an advisory group to provide feedback regarding BFRR, as well as other Chapter 30 programs. The committee included ILECs, Local Development Districts, local governments, and other local economic and industrial development agencies.

## C. Utilization and Implementation of the BFRR Program

Under the BFRR program, ILECs were required to provide semiannual reports to the PUC. The reports included the number of BFRR requests they received and dates the services (i.e., advanced and/or broadband services) were deployed under the program. Both CenturyLink and Windstream PA opted to deploy in all community/customer service areas (CSA) where at least one BFRR request was made, regardless of whether the number of requests met the required threshold. Verizon PA and Verizon North, however, deployed only where the minimum of 50 requests or 25 percent threshold was met.

We present aggregated data for each ILEC in Exhibit 9. The exhibit illustrates there were BFRR requests in the majority of exchanges of each ILEC, 69 percent overall, required to implement a BFRR program.

### Exhibit 9

#### BFRR Requests

ILEC	No. Total Exchanges	No. Exchanges With BFRR Requests	Total No. CSAs	No. CSAs With BFRR Deployments
Verizon PA & Verizon North	502	321	1,819	519
Windstream PA	84	60	NA*	187
CenturyLink	92	85	NA*	461

\* Data is not available. Total number of CSAs that existed at the time of their respective BFRR programs are unavailable from both Windstream PA and CenturyLink.

Source: Developed by LBFC Staff from data provided by the PUC.

Chapter 30 allowed ILECs to request extensions for implementation of BFRR requests, which generally were caused by issues beyond the affected companies' control. ILECs requested extensions for a variety of reasons, including issues related to:

- Need for electric permitting.
- Third party cooperation.
- Easements.
- Railroad Crossings.
- Municipal Cooperation.
- Retrofitting outdated equipment.

Exhibit 10 shows the number of extensions requested by each ILEC. The column in the exhibit, headed “Number Timely Deployed” shows the number of deployments that were completed by the extension date granted by the PUC. This measurement is driven by a formula that compares the “Due Date Granted” (the date to which the PUC has granted an extension) to the actual deployment date. If the deployed date is earlier than or equal to the due date, the BFRR extension was timely deployed. If the deployed date was one or more days late (missed deadlines ranged from one day to several months), the BFRR was not timely deployed. Missed deployments were caused by issues outside the control of ILECs (e.g., rights-of-way).

In those instances when a BFRR was not deployed in a timely manner, the PUC took no action as no complaints were filed by customers. In some instances, ILECs gave customers bill credits or service vouchers when a deployment was delayed, which generally made it less likely that a complaint would be filed.

### Exhibit 10

#### PA ILEC Extension Requests

ILEC	Total Number of Requests	Avg. Additional Days Requested	Number of Requests Granted	Number Timely Deployed
Verizon & Verizon North	57	66	55 <sup>a</sup>	37
Windstream PA	14	165	13	12
CenturyLink	13	152	13 <sup>b</sup>	4

<sup>a</sup> Two extension requests were withdrawn.

<sup>b</sup> Eight extension requests were withdrawn.

Source: Developed by LBFC Staff from data provided by the PUC.

## D. Review/Audit of BFRR Semi-annual Reports

The PUC is required by Chapter 30 (as related to the BFRR program) to:

*Monitor and enforce the compliance of participating local exchange telecommunications companies with their obligations under this section.* <sup>54</sup>

<sup>54</sup> Act 2004-183 – 66 Pa C.S. § 3014(c)(11)

Exhibit 11 delineates the process the PUC used to review the semiannual BFRR reports submitted by ILECs. This process is more of a review than an audit.

## Exhibit 11

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### **PUC Auditing Process for BFRR Obligations**

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All ILECs with an obligation to offer a BFRR program (i.e., Verizon PA, Verizon North, CenturyLink, and Windstream PA) were required to submit semiannual reports to the PUC of the number of requests for advanced services received during the reporting period by exchange or density cell, including the action taken on requests meeting the requirements pursuant to 66 Pa.C.S. § 3014(c)(9).

Analysts in the PUC's Bureau of Technical Utility Services – Telecommunications Division ensure the semiannual reports are filed on time and in the form determined by the PUC.

Upon receipt, the semiannual reports are docketed and then distributed to the responsible analysts.

The semiannual reports are then reviewed to ensure the affected ILECs are complying with the provisions of Chapter 30 and their respective BFRR programs.

PUC analysts check the semiannual reports to ensure accurate reporting of individual BFRR requests, correct scheduling of advanced services deployment following the qualification of individual Carrier Serving Areas (CSAs), and the timely deployment of advanced services to qualifying CSAs. Broadband deployment dates are cross-referenced with any approved extension petitions filed pursuant to 66 Pa.C.S. § 3014(c)(5).

The semiannual reports are also compared to previous reports to ensure there are no irregularities with regards to qualification dates, actual or planned deployment dates, the number of individual BFRRs required to qualify specific CSAs, and the number of individual BFRRs received in specific CSAs.

If any clarifications were needed or discrepancies were noted in an ILEC's semiannual BFRR report, PUC analysts generally initiated informal contact with ILEC representatives via email. A PUC representative estimated this type of informal contact was necessary in one out of five semiannual BFRR reports filed and approximately one out of 20 reports needed to be revised or refiled. This type of informal action proved sufficient in clearing up actual or perceived noncompliance with the provisions of Chapter 30 and the ILECs' respective BFRR programs.

On several occasions, PUC contact led to the submission of corrected reports, complementary data, and the filing of additional or supplemental extension petitions.

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Source: Developed by LBFC Staff from data provided by the PUC.

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The BFRR program semiannual reports were reviewed by PUC technical staff to ensure compliance with Chapter 30 and the provisions of each ILEC's NMP. Data from each report was entered into tracking files and metrics<sup>55</sup> were established to monitor progress. Any inconsistencies or anomalies were addressed with the ILECs, resulting in the submission of

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<sup>55</sup> Metrics used by the PUC included the number of BFRR communities activated during specific periods compared to the overall number of BFRRs received, the growth or decline in the number of qualified BFRR communities awaiting broadband each reporting period, the investment per broadband-qualified access line by each company, take rates for various services, etc.

revised reports. PUC staff review of BFRR semiannual reports was subject to both peer review and standard chain-of-command review.

## **E. BFRR Complaint**

One formal complaint was filed with the PUC stemming from the BFRR program; the petition was filed jointly by the POCA and the affected customer (Ebersole), located in Greensburg, PA. They sought a Declaratory Order from the PUC asking the PUC to find that Verizon PA had failed to provide advanced services as provided for under the Chapter 30 BFRR program and promised by Verizon PA.

Verizon indicated it would extend DSL service to the customer, and requested a time extension from the PUC to do so. One day before the extension period expired, Verizon communicated that it was not going to extend DSL to the customer's community service area and offered pre-existing fixed wireless services instead, which would not provide consistent speeds, and would be less affordable and reliable. PUC and POCA both noted that the customer had sought DSL broadband and instead waited two years before being told DSL would not be available. Instead, the customer's BFRR would be satisfied with existing broadband fixed wireless services.

The relief requested in the joint petition was not granted, because the PUC determined that the service only be provided at the required speed and Chapter 30 does not require a specific technology be used to provide the service. The PUC also determined Chapter 30 imposed no pricing requirements. The PUC issued both a tentative order regarding legal issues and a final order regarding the customer's service.

In its final order, the PUC noted that it was troubled by how Verizon PA handled this particular BFRR from a customer service perspective, and agreed with POCA that an additional remedy, such as providing the wireless data service without usage limits or at a reduced price, would have been appropriate. The PUC encouraged Verizon PA to revisit the issue and report its actions. In response, Verizon PA provided the following remedy:

- Current customers were provided with a credit of \$100 toward their bills.
- To encourage customers to try Verizon Wireless 4G LTE, and to thank customers who were already using it, each customer was sent a \$250 Verizon Wireless gift card.
- Each customer was provided with a Verizon point of contact to call with any questions regarding the 4G LTE services available to them.

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## SECTION V JOINT VENTURE AGREEMENTS



### **Fast Facts...**

- ❖ *Chapter 30 policy encouraged joint venture agreements that accelerated, improved, or otherwise assisted ILECs in implementing their NMPs.*
- ❖ *Four ILECs appropriately entered into joint venture agreements with other parties to provide broadband service.*
- ❖ *The agreements appear to have allowed ILECs to fulfill their obligations under Chapter 30.*

## **Overview**

Within this section we reviewed joint venture agreements under approved network modernization plans (NMP) for compliance with Chapter 30. Joint venture agreements are expressly encouraged between incumbent local exchange carriers (ILEC) and other entities within Chapter 30's declaration of policy. Chapter 30 also specified that nothing in its provisions prohibits such agreements. Four ILECs appropriately entered into various joint venture agreements with other parties to satisfy their broadband deployment mandates under their NMPs as their respective deadlines approached (i.e., December 31, 2013 and December 31, 2015).

### **A. Utilization of Joint Venture Agreements**

In its declaration of policy, Chapter 30 encouraged joint venture agreements between ILECs and other entities where such agreements accelerated, improved, or otherwise assisted ILECs in implementing their NMPs. Chapter 30 expressly stated that nothing in its provisions prohibited an ILEC from participating in joint ventures with other entities for the purpose of meeting its advanced services and broadband deployment commitments. According to the POCA, joint ventures are a way for telecommunications companies to provide broadband in underserved areas.

According to the PUC, ILECs did not enter into joint venture agreements until near the end of their respective broadband mandatory deployment periods (i.e., December 31, 2013 and December 31, 2015) when ILECs began to partner with wireless via radio link and satellite (wireless) companies. For example, Verizon PA and Verizon North entered into joint venture agreements with Cellco Partnership d/b/a Verizon Wireless (Verizon Wireless) and Hughes Network Systems, LLC (HughesNet) to satisfy their broadband access commitments. Chapter 30 imposed no requirements for ILECs to submit joint venture agreements to the PUC or DCED, although notice and information about agreements was included in the proprietary NMP biennial reports submitted by the respective ILECs to

the PUC.<sup>56</sup> According to POCA, the PUC was notified by the ILECs about joint venture agreements after implementation of the agreements.

According to a PUC official, joint venture arrangements were entered into by four ILECs: Verizon PA, Verizon North, CenturyLink, and Windstream PA with providers of wireless via radio link and satellite (wireless) broadband services. These joint ventures allowed the ILECs to extend broadband services, as a last resort, to areas where they did not otherwise offer wireline broadband services. Specific companies with which Chapter 30 ILECs entered into joint venture included Verizon Wireless to provide 4G LTE broadband service, and HughesNet and Dish Network LLC (DISH Network) to provide satellite broadband service. All joint venture arrangements filed by ILECs were filed under proprietary seal.<sup>57</sup>

We reviewed the joint venture agreements, which were used to achieve their commitments under Chapter 30. However, due to the confidential nature of the agreements, we cannot share details of these agreements. However, we confirmed that joint venture agreements were undertaken by the following:

- Windstream PA with DISH Network.
- CenturyLink with Verizon Wireless.
- CenturyLink with HughesNet.
- Verizon PA/Verizon North with Verizon Wireless.
- Verizon PA/Verizon North with HughesNet.

## **B. Impacts of Joint Venture Agreements**

We asked ILECs that entered into joint venture agreements to comment on how these arrangements affected the quality and cost of broadband services. Their responses are below:

*Windstream PA:* Windstream PA entered into an amended and restated agreement with DISH Network in March 2010, to cover territories Windstream PA could not reach. Windstream PA stated the joint venture did not reduce its continued broadband expansion and service offerings in its territory. Windstream PA used this joint venture as a way to fill a gap for very rural areas that had no other broadband options without incurring extremely large expenses. Through this joint venture, Windstream PA was also able to provide additional non-traditional service offerings to its

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<sup>56</sup> LBFC staff reviewed the proprietary NMP biennial reports and the proprietary joint venture agreements entered into by the four ILECs to confirm the existence and utilization of the agreements to satisfy broadband deployment commitments. Verizon North and Verizon PA collectively entered joint venture agreements. Information about the joint ventures is also reflected in Exhibit 6 in Section III of this report.

<sup>57</sup> The collective joint venture agreement between Verizon North/Verizon PA and Verizon Wireless was the only agreement filed with the PUC. All others were referenced in the respective NMP biennial reports.

customers, including a satellite television option through Dish Network satellite services. Customers that subscribed to DISH Network satellite Internet service received faster broadband speeds than Windstream PA could have provided at similar price points. For example, Windstream PA's pricing for 3Mb High Speed Internet was \$42.99 per month compared to DISH Network's pricing for 5 Mb at \$49.99 per month.

*CenturyLink:* CenturyLink entered into two joint venture agreements in order to fulfill its mandates under Chapter 30. The first was its agreement with Verizon Wireless, which allowed CenturyLink to leverage the existing reseller relationship between CenturyLink and Verizon Wireless. CenturyLink representatives could sell Verizon Wireless service and bill it on the CenturyLink customer account. At that time, it was the first option provided to customers after verification that access to 1.544 Mbps broadband was not available directly from CenturyLink.

The second joint venture agreement also leveraged an existing agreement, available as of May 2013, with HughesNet, a satellite provider, in the event that Verizon Wireless was not an option for a particular customer. According to CenturyLink, a similar process was in place in that the CenturyLink representative could leverage an existing, national relationship with HughesNet and make the appropriate referral. As part of the process, HughesNet provided CenturyLink with access to its installation portal so that hourly/daily monitoring of all service order activity could occur. The portal gave CenturyLink the ability to monitor HughesNet service activity in Pennsylvania for any line of sight issues or customer concerns.

*Verizon PA/Verizon North:* Verizon PA and Verizon North collectively entered their first joint venture with its affiliate Verizon Wireless. In its biennial update for the period ending December 31, 2010, Verizon PA reported to the Commission that it had entered into a trial arrangement that would permit it to make Verizon Wireless broadband service available in certain areas in which Verizon does not currently offer broadband. The PUC found<sup>58</sup> 4G LTE service provided under a joint venture with Verizon Wireless to be a technology that Verizon was permitted to rely upon to satisfy its broadband availability commitments under Chapter 30. The final joint venture agreement between Verizon and Verizon Wireless was executed in December 2012. Under this arrangement, Verizon PA and Verizon North funded the construction of new wireless towers in relevant areas and ensured that physical facilities to provide broadband service were in place, while Verizon Wireless offered broadband service to customers using those facilities. Under the joint venture, Verizon PA and Verizon North each remained solely responsible for complying with their NMP and statutory obligations.

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<sup>58</sup> By PUC order entered February 28, 2013 at Docket P-2012-2323362.

In June 2015, Verizon PA and Verizon North collectively entered into a second joint venture agreement with HughesNet to make its HughesNet satellite broadband available to those Verizon customers for whom Verizon wireline and 4G LTE broadband services were not available. Verizon PA noted that it only expected to rely on HughesNet service for a very small percentage of its lines in its final report to the PUC.

Verizon stated the services offered to its customers under these joint ventures offered value and flexible options for broadband service, in that it offered various service plans at different pricing levels. HughesNet broadband satellite service also offered different pricing tiers based on data needs. For service quality, Verizon stated that its 4G LTE wireless broadband and satellite broadband partners exceeded the minimum speeds required by Chapter 30.

## SECTION VI COMPLIANCE AUTHORITY AND ACTIONS UNDER CHAPTERS 30 AND 33



### Fast Facts...

- ❖ *Chapter 30 authorized the PUC to mandate customer refunds in the event an ILEC failed to meet its 100 percent broadband commitment, and Chapter 33 dictated certain civil penalties for various violations.*
- ❖ *No customer refunds were mandated, nor were any civil penalties imposed by the PUC.*

## Overview

This section examines the authority and related actions taken by the PUC under section 3015(a)(2) of Chapter 30, related to Pennsylvania incumbent local exchange carriers' (ILEC) compliance with their interim and final 100 percent commitments for broadband availability in their amended NMPs. It also reviews Chapter 33 actions, related to violations and penalties associated with any violations of Chapter 30, relating to a bona fide retail request (BFRR) program [§§ 3014(b)(3)(ii)(B) and (c)]; a balanced deployment of broadband networks [§ 3014(k)]; reclassification of a business activity between competitive and noncompetitive [§ 3016(c)]; and prohibitions from using revenues or expenses from non-competitive services to subsidize competitive services [§ 3016(f)].

### A. Authority

Chapter 30 authorized the PUC to take certain actions against ILECs, including the ability to mandate customer refunds. Chapter 33 of the Pennsylvania Public Utility Code dictated certain civil penalties for other violations.

**Section 3015(a)(2) – Refunds.** Section 3015(a)(2) of Chapter 30 provided that the PUC was to monitor and enforce ILECs' compliance with their interim and final 100 percent commitments for broadband availability in their amended NMPs. In the event an ILEC (after notice and an evidentiary hearing) was found to have failed to meet its interim or final 100 percent broadband commitment, the PUC was mandated to require the ILEC to refund a just and reasonable amount to the customer. Section 3015(a)(2) further specified:<sup>59</sup>

*Such an amount [a just and reasonable refund] shall not exceed an amount determined by multiplying the percentage shortfall of the broadband availability commitment on an access-line basis required to be met during the period from the start of the amended plan or from the date of the last prior commitment, as applicable, times the increased revenue that was obtained during*

<sup>59</sup> Act 2004-183 – 66 Pa.C.S. § 3015(a)(2).

*this period as a result of the modified inflation offset<sup>60</sup> provided in this section that reduced the inflation offset applicable in the ILECs alternative regulation plan in effect on the effective date of this section, plus interest calculated under section 1308(d) (relating to voluntary changes in rates).<sup>61</sup> (Emphasis added)*

Exhibit 12 reflects the modified inflation offset that was applicable to an ILEC’s price stability mechanism in adjusting its rates for noncompetitive services, effective upon the filing of an amended NMP under section 3014(e).

### Exhibit 12

<b>Pennsylvania ILEC Modified Inflation Offset</b>	
<b>Act 2004-183 Option</b>	<b>Modified Inflation Offset %</b>
<b>Option 1:</b> <ul style="list-style-type: none"> <li>• RLEC – 100% broadband availability by 12/31/2008. [66 Pa.C.S. § 3015(a)(1)(iii)]</li> </ul>	0%
<b>Option 2:</b> <ul style="list-style-type: none"> <li>• RLEC – 100% broadband availability by 12/31/2013. [66 Pa.C.S. § 3015(a)(1)(iii)]</li> <li>• RLEC – 100% broadband availability by 12/31/2015.* [66 Pa.C.S. § 3015(a)(1)(iv)]</li> </ul>	0%  0.5%
<b>Option 3:</b> <ul style="list-style-type: none"> <li>• Nonrural ILEC – 100% broadband availability by 12/31/2013.* [66 Pa.C.S. § 3015(a)(1)(i)]</li> <li>• Nonrural ILEC – 100% broadband availability by 12/31/2015. [66 Pa.C.S. § 3015(a)(1)(ii)]</li> </ul>	0%  0.5%

\* No RLECs selected Option 2 with a 12/31/2015 compliance date, and no nonrural ILECs selected Option 3 with a 12/31/2013 compliance date.

Source: Developed by LBFC staff from Act 2004-183.

<sup>60</sup> “Inflation offset.” *The part of the price change formula in the price stability mechanism that reflects an offset to the Gross Domestic Product Price Index or Successor Price Index [a measure of inflation].* The purpose of an inflation offset is to reflect productivity increases in the telecommunication industry that resulted in decreasing real costs in the components of telephone service. Sections 3014(b)(8) and 3015(a)(1) provided an ILEC that elects to accelerate its broadband availability commitment pursuant to Options 1, 2, or 3 [See - Sections 3014(b)(1), (2), or (3)] shall be subject to modified inflation offset in its price stability mechanism as set forth in section 3015(a)(1).

<sup>61</sup> It is further stipulated that any such refund shall be separate from and in addition to any civil or other penalties that the PUC may impose on ILECs under Chapter 33 (relating to violations and penalties).

**Chapter 33 Violations and Penalties.** Chapter 33 under section 3301, relating to civil penalties for violations, generally provides that violations of the provisions of the Public Utility Code by any Pennsylvania public utilities (e.g., ILECs) subjects them to a civil penalty in an amount not to exceed \$1,000 with each and every day's continuance in violation being a separate and distinct offense.<sup>62</sup> The provisions of SR 2019-48 specifically asked us to ascertain whether there were any Chapter 33 civil penalties imposed in relation to any violations of Chapter 30, relating to:

- A bona fide retail request program.<sup>63</sup>
- A reasonably balanced deployment of broadband networks between rural, urban, and suburban areas within each ILEC's service territory in accordance with its approved NMP.
- Reclassification of a service or other business activity between competitive and noncompetitive.<sup>64</sup>
- Prohibitions from using revenues or expenses from noncompetitive services to subsidize competitive services.

## B. Imposition of Refunds and Penalties

According to PUC officials, no customer refunds were mandated pursuant to Chapter 30, nor were there any civil penalties imposed pursuant to Chapter 33, as it found no instances of any violations warranting such actions.<sup>65</sup> The PUC further explained that if there were any areas of concern, the ILECs ultimately addressed them to the satisfaction of the PUC, and most issues involved quality of broadband service versus the provision of such service.

PUC referenced the *Terry R. White v. Verizon North, LLC* complaint (*White complaint*) as an example of the type of issue that could have triggered a customer refund or civil penalty if the matter had not been resolved to comply with the Chapter 30 provisions. The *White complaint* (filed on February 29, 2016) alleged Chapter 30 provisions were not met, in that Verizon North indicated to the complainant that it did not offer retail

<sup>62</sup> Act 1978-116 – 66 Pa.C.S. Ch. 33 (§§ 3301-3316).

<sup>63</sup> See Section IV Bona Fide Retail Request Program of this report for background regarding the program.

<sup>64</sup> Chapter 30 provides that a party (e.g., an end user, ILEC, etc.) may petition the PUC to reclassify a previously declared competitive service or other business activity as noncompetitive. Prior to there being a reclassification of noncompetitive service as competitive, there must have been a previous declaration by an ILEC pursuant to Chapter 30 of a noncompetitive service as competitive in relation to nonprotected services. The PUC in making its reclassification determination is directed to consider all relevant information submitted, including the availability of like or substitute services or other business activities. The determination of the PUC is limited to the particular geographical area, exchange, or density cell in which the service or other business activity is currently deemed noncompetitive.

<sup>65</sup> LBFC affirmed with the various Pennsylvania ILECs that no formal refunds were mandated under Section 3015(a)(12) of Chapter 30, nor were any civil penalties issued under Chapter 33.

broadband access service at the complainant's address nor could it provide a date when such service would become available. The PUC determined it had jurisdiction over this matter, as it implicated a public utility service and the PUC regulates broadband availability under Chapter 30. However, the PUC also found that the complainant was not a current customer of Verizon North at the time the *White complaint* was filed, and that subsequently a telephone line was installed on March 17, 2016, at the complainant's residence followed by the establishment of digital subscriber line (DSL) broadband service on March 25, 2016. Therefore, the provisions under Chapter 30 regarding the availability of broadband service had been satisfied.



## SECTION VII STAKEHOLDER RECOMMENDATIONS



### **Fast Facts**

- ❖ *SR 2019-48 calls for the issuance of this report with recommendations in relation to the administration and oversight of any future Chapter 30 legislated provisions related to mandatory broadband deployment.*

## **Overview**

This section acknowledges SR 2019-48 calls for the issuance of this report with potential recommendations in relation to the administration and oversight of any future Chapter 30 legislated provisions related to mandatory deployment of broadband. Such administrative and oversight recommendations, as presented by the stakeholders, are somewhat inhibited, as we do not know what hypothetical broadband deployment mandates or goals might ultimately be proposed in any future Chapter 30 legislation.

## **A. Pennsylvania Public Utility Commission Recommendations**

The Pennsylvania Public Utility Commission (PUC) made the following recommendations related to future statutory broadband requirements:

- Consider whether to limit any future state broadband deployment mandates to ILECs, or to expand it to include other broadband providers (e.g., cable, satellite (wireless), wireless via radio link, etc.).
- Continue existing Chapter 30 requirement that a broadband provider (ILEC or otherwise) file a plan detailing how the provider intends to meet any new mandates.
- Similar to existing Chapter 30 filing requirements, require a broadband provider to file annual updates showing the provider's progress in meeting any broadband availability mandates, and require the provider to provide a description of its basic broadband service offering, along with the rates and the adoption rates for broadband deployed at the speed standard under any new mandates.
- Retain the existing practice and clarify that the broadband provider is to bear the cost of an audit to verify its compliance with any new mandates.
- Specify that a broadband provider is required to furnish documentation supporting all data submitted with its broadband plan and/or in relation to any audit.

- Ensure that all broadband providers can meet the broadband availability mandates, as is the case today for ILECs under Chapter 30.

## **B. Department of Community and Economic Development Recommendations**

The Department of Community and Economic Development (DCED) made the following recommendations:

- Include enforcement/penalty provisions to encourage compliance related to providing broadband mapping data.
- Specify the scale, granularity, and frequency for any data submissions.
- Provide dedicated funding to support the development and maintenance of inventory of broadband services data collection and mapping. Mapping is an ongoing process that currently lacks a dedicated funding source.
- Provide funding to support adequate DCED staff related to any future broadband programs or mandates.

## **C. Incumbent Local Exchange Carriers Recommendations**

Generally, Pennsylvania ILECs indicated that when Chapter 30 was originally conceived 28 years ago, they were the primary and in most cases, the only voice service provider/telephone communication service provider choices available to customers. Additionally at the time, copper landlines were the dominant technology utilized by the heavily regulated ILEC industry. However, subsequently there have been significant advances in the types of technology (e.g., cable modem, fiber, wireless via radio link, satellite (wireless), and broadband over powerlines (BPL)) that can be utilized to provide broadband access to end-users, and an array of different competitors actively providing broadband access throughout Pennsylvania. Thus, the ILECs indicate any future policy related to broadband access should:

- Be based on a strategy that addresses the various broadband access technologies available today and the competitive environment that exists for broadband services.
- Be provider and technology neutral.
- Focus on private investment that encourages the various technologies.
- Be designed to work in concert with applicable federal policies.

## **D. Pennsylvania Senate Communications and Technology Committee Recommendation**

The Pennsylvania Senate Communications and Technology Committee listed the following recommendation in its *Closing PA's Digital Divide* report based on the information gathered by the committee during a series of broadband hearings held during 2019:

- Increase the level of detail of Pennsylvania broadband availability maps and conduct detailed surveys to identify service gaps within rural areas.<sup>66</sup>

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<sup>66</sup> In June 2019, the Center for Rural Pennsylvania released a report titled, *Broadband Availability and Access in Rural Pennsylvania*.

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SECTION VIII  
APPENDICES



Appendix A – Senate Resolution 2019-48

PRIOR PRINTER'S NO. 657

PRINTER'S NO. 952

THE GENERAL ASSEMBLY OF PENNSYLVANIA

SENATE RESOLUTION

No. 48 Session of  
2019

INTRODUCED BY PHILLIPS-HILL, YAW, HUTCHINSON, COSTA, BAKER, AUMENT,  
STEFANO, WHITE, BROWNE, HAYWOOD AND BARTOLOTTA, APRIL 29, 2019

SENATOR PHILLIPS-HILL, COMMUNICATIONS AND TECHNOLOGY, AS AMENDED,  
JUNE 12, 2019

A RESOLUTION

Directing the Legislative Budget and Finance Committee to conduct ~~an~~  
~~audit on~~ A REVIEW OF the compliance of telecommunication carriers  
with the ~~Public Utility Code~~ and high-speed broadband ~~universal~~  
~~service~~ deployment mandates OF THE PUBLIC UTILITY CODE and to  
report ~~their~~ findings and recommendations to the Senate.

WHEREAS, The purpose of 66 Pa.C.S. Ch. 30 was to ensure that all  
areas of this Commonwealth have a modern, state-of-the-art broadband  
telecommunications network by the end of 2015, with incumbent local  
exchange telecommunications companies (ILETCs) receiving substantially  
greater pricing and earnings flexibility than the traditional rate-of-  
return form of regulation under which the prices and earnings had  
originally been set to fund the deployment of high-speed broadband

networks throughout this Commonwealth; and

WHEREAS, The intended goal of 66 Pa.C.S. Ch. 30 was to promote an accelerated roll-out of a mass market and universal broadband network that would establish this Commonwealth as a national leader in broadband deployment; and

WHEREAS, Chapter 30 of 66 Pa.C.S., which added sections 3001 through 3009, was enacted and made effective immediately through Act 67 of 1993; and

~~WHEREAS, In 1993, telecommunications carriers operating in this Commonwealth adopted an alternative form of regulation and network modernization plans to replace existing copper-based network infrastructure with a hybrid of fiber optic and coaxial cables to deliver high-speed broadband at speeds of at least 45 megabits per second (Mbps) in both directions throughout 100% of their urban, suburban and rural service territories by the end of 2015; and~~

~~WHEREAS, In their first two biennial updates, telecommunications carriers reiterated their commitment to deploy high-speed broadband at speeds of 45 Mbps or greater to customer locations within five business days even though the statutory minimum for universal broadband availability was 1.544 Mbps; and~~

~~WHEREAS, In June 2000, telecommunications carriers filed their third biennial update with the Pennsylvania Public Utility Commission (PUC) requesting approval of substantial revisions to their network modernization plans that would retain their existing distribution system of obsolete copper wire pairs to deploy high-speed broadband at 1.544 Mbps through digital subscriber line (DSL) services instead of replacing the network with a hybrid of fiber optic and coaxial cables~~

~~to deliver high-speed broadband at speeds of at least 45 Mbps in both directions, while obtaining financial benefits as a result of 66 Pa.C.S. Ch. 30; and~~

~~WHEREAS, In March 2002, the PUC rejected the telecommunications carriers' third biennial update and concluded that telecommunications carriers unilaterally changed the broadband commitment without properly notifying the PUC, stating that:~~

~~(1) half of the telecommunications carriers' customers having the capability and willingness to pay for DSL service could not subscribe to the service as a result of distance limitations from the telecommunications carriers' central offices;~~

~~(2) even fewer residential customers had DSL service available to them at speeds of 1.544 Mbps or more; and~~

~~(3) the 1.544 Mbps bandwidth proposed by telecommunications carriers for those customers was far below the 45 Mbps bandwidth approved in their 1995 network modernization plans and their first two PUC-approved biennial reports in 1996 and 1998;~~

~~and~~

~~WHEREAS, In September 2002, telecommunications carriers filed a petition to amend their network modernization plans to:~~

~~(1) deploy fiber or comparable technology to remote terminals to make higher bandwidth services available for purchase by more customers;~~

~~(2) make available, upon customer request, broadband services of at least 1.544 Mbps within five days of a customer's request;~~

~~and~~

~~(3) make at least 45 Mbps service available within~~

~~commercially reasonable times and establish DSL deployment benchmarks at various speeds and types of DSL to reach 45% of rural lines by 2006;~~

and

~~WHEREAS, In July 2003, the PUC officially permitted telecommunications carriers to break the commitment to the Commonwealth to deploy a 45 Mbps high-speed hybrid fiber optic and coaxial cable broadband network and replaced that commitment with a mandate to deploy broadband at a speed of 1.544 Mbps with the following benchmarks regarding each urban, suburban or rural exchange:~~

- ~~(1) 50% by 2004;~~
- ~~(2) 60% by 2006;~~
- ~~(3) 70% by 2008;~~
- ~~(4) 80% by 2010;~~
- ~~(5) 90% by 2012; and~~
- ~~(6) 100% by 2015;~~

and

~~WHEREAS, In July 2003, the PUC A PENNSYLVANIA PUBLIC UTILITY COMMISSION (PUC) order also directed telecommunications carriers to upgrade all central offices and existing remote terminals and construct new terminals to provide broadband service at 1.544 Mbps within five days of a customer request; and~~

~~WHEREAS, Immediately following the sunset of 66 Pa.C.S. Ch. 30 on December 31, 2003, the PUC issued a statement of policy to clarify the duties and obligations of ILETCS regarding final PUC orders issued under former 66 Pa.C.S. Ch. 30 and reinforced that previously approved plans would remain in effect and were fully enforceable in all aspects~~



upon all ILETCS; and

WHEREAS, Act 183 of 2004 repealed 66 Pa.C.S. §§ 3001-3009 and added §§ 3010-3019 to provide additional economic and regulatory incentives to ILETCS to further facilitate the deployment of a Statewide broadband network by:

- (1) encouraging earlier completion of existing network modernization plans;
- (2) reducing the inflation offset under the companies' price cap form of rate regulation;
- (3) eliminating outdated PUC filing and reporting regulations; and
- (4) establishing several funds and programs to further facilitate broadband deployment beyond the deployment commitments contained in ~~the~~ CERTAIN companies' network modernization plans, including:
  - (i) a bona fide retail request (BFRR) program;
  - (ii) a business attraction or retention program;
  - (iii) the Broadband Outreach and Aggregation Fund; and
  - (iv) the Education Technology Fund;

and

WHEREAS, In February 2005, this Commonwealth's LARGEST telecommunications ~~carriers~~ CARRIER filed A revised network modernization ~~plans~~ PLAN with the PUC to comply with Act 183 of 2004; and

WHEREAS, The ~~plans were~~ PLAN WAS approved by order entered in May 2005 to:

- (1) require the ~~telecommunications carriers~~ CARRIER to retain

~~their~~ ITS commitment of broadband availability to 100% of the total retail access lines by December 31, 2015, under the same benchmarks as outlined in the third supplement to ~~their~~ ITS network modernization ~~plans~~ PLAN approved by the PUC in August 2004; and

(2) allow ~~telecommunications carriers~~ THE CARRIER to reduce the inflation offset of ~~the~~ ITS price stability mechanism from 2.93% to 0.5% to generate additional funding dedicated to the deployment of high-speed broadband service at 1.544 Mbps through urban, suburban and rural areas of ~~their~~ ITS service territories; and

WHEREAS, In December 2011, this Commonwealth's LARGEST telecommunications ~~carriers filed plans to announce their intentions~~ CARRIER FILED A PLAN PURSUANT TO STATUTE TO ANNOUNCE ITS INTENTION to use other technologies, including fixed wireless, to meet the statutorily mandated broadband deployment benchmarks, stating ~~their~~ ITS commitment to inform the PUC about deploying technologies to make broadband available to customers; and

WHEREAS, The filing was approved by Secretarial Letter dated August 2012; and

WHEREAS, On September 7, 2012, David K. Ebersole and the Office of Consumer Advocate filed a joint petition seeking a declaratory order and asserting that this Commonwealth's largest telecommunications carrier did not meet its:

(1) legal obligation to the Greensburg community service area (CSA) 1125 BFRR for accelerated deployment of advanced services;

and

(2) legal broadband deployment obligation because it directed

the BFRR applicants to apply to the telecommunications carrier's wireless affiliate for wireless 4G LTE broadband services, which caused the Greensburg CSA customers to believe, for approximately two years, that they would be receiving wireless DSL service to meet their request filed in July 2010;

and

WHEREAS, In February 2013, the PUC approved a final order and concluded that the PUC cannot specifically require ~~telecommunications carriers~~ THE CARRIER to deploy DSL service to meet the BFRR of the Greensburg CSA 1125 customers or to set a specific price for the retail broadband access service offered those customers as part of the request; and

WHEREAS, The PUC approved this Commonwealth's largest telecommunications carrier's joint venture with its wireless affiliate to provide retail broadband access service to rural BFRR customers; and

~~WHEREAS, The largest telecommunications carrier's joint venture agreement with its wireless affiliate changes a potential alternative provider of broadband service into the carrier's designated provider, which may constitute illegal cross-subsidization under 66 Pa.C.S. § 3016(f)(1) and the corresponding PUC regulations under 52 Pa. Code § 63.143(4)(i); and~~

WHEREAS, The largest telecommunications carrier's customers who receive wireless broadband services to satisfy a BFRR are required to address any service or billing disputes with the wireless affiliate, ~~further raising cross-subsidization concerns because the carrier's wireless affiliate~~ WHICH is an unregulated provider of wireless

competitive services and may or may not receive dedicated funding only for the benefit of the carrier's customers where broadband must be deployed, and the funding may or may not be used by the wireless affiliate to offer competitive wireless services to the general public; and

WHEREAS, The pricing for the wireless 4G LTE that is provided through ~~the~~ THIS Commonwealth's largest telecommunications carrier's joint venture is affected by certain data usage caps and tiers, various equipment charges, service reliability issues and contract periods that may exceed the one-year contractual term that is statutorily specified for the routine engagement of retail broadband access service under the BFRR process ~~and could be considered cost prohibitive to rural customers that lack access to alternative broadband service providers and who have paid increased telephone fees for decades to telecommunications carriers for the deployment of broadband services;~~ and

~~WHEREAS, The promise by telecommunications carriers to bring fiber Internet or comparable technology to their entire urban, suburban and rural service territories has instead resulted in an estimated 2,000,000 Pennsylvania homes having slower DSL service, unreliable wireless service or no service at all;~~ and

WHEREAS, The deployment and adoption of broadband technology in rural communities is a central policy challenge facing this Commonwealth; and

WHEREAS, Broadband service is an engine of economic growth that offers rural communities the hope of economic development, the promise of economic revitalization, the energy of an educated productive

citizenry and the benefit of a positive quality of life; and

WHEREAS, Access to broadband and advanced telecommunication technology is essential for full participation in economic and social life for every Pennsylvanian; and

WHEREAS, Consumers in this Commonwealth continue to stress the need for faster digital connections so that local businesses can sell products globally, school children can receive a quality education and farmers can operate high tech equipment, especially in rural areas; and

WHEREAS, The Federal Communications Commission's Connect America Fund offered funding to this Commonwealth's largest telecommunications carrier to build new broadband network infrastructure or upgrade networks in areas where it might not be as profitable, yet hundreds of millions of dollars in Connect America Funds have been declined by the carrier; therefore be it

RESOLVED, That the Senate direct the Legislative Budget and Finance Committee to conduct ~~an audit on~~ A REVIEW OF the compliance of telecommunication carriers with high-speed broadband ~~universal service~~ deployment mandates under the Public Utility Code; and be it further

RESOLVED, That the Legislative Budget and Finance Committee:

(1) determine whether telecommunications carriers have fulfilled their commitments under ~~the Public Utility Code~~ 66 PA.C.S. CH.30 to accelerate broadband availability to 100% of their total retail access lines in their distribution networks by December 31, 2015;

(2) analyze efforts by the PUC and the Department of Community and Economic Development regarding compliance and administration of

BFRR programs under 66 Pa.C.S. § 3014(c);

(3) examine joint venture arrangements under approved NMPs for compliance with 66 Pa.C.S. Ch. 30 and analyze the impact of joint venture arrangements on the quality and affordability of service provided; and

(4) examine actions taken by the PUC under 66 Pa.C.S. § 3015(a)(2) and 66 Pa.C.S. Ch. 33 in relation to violations of 66 Pa.C.S. § 3014(b)(3)(ii)(B), (c) or (k) or 3016(c) or (f);

and be it further

RESOLVED, That the Legislative Budget and Finance Committee issue a report of its findings and recommendations to the Senate within one year of the date of adoption of this resolution.

## Appendix B – PA Broadband Bill of Rights



### PA Broadband Bill of Rights

**YOU** have the right to broadband access under Pennsylvania law

**YOUR** local telephone company must make service available within 10 days of your request

**BROADBAND** service must meet PA's speed requirements:

1.544 megabits per second download

0.128 megabits per second upload

**IF** service is not being provided, or consumers are not satisfied with a response, contact the PUC's Bureau of Consumer Services at 1-800-692-7380

### BROADBAND CONSUMER RIGHTS IN PENNSYLVANIA

1. Under state law, Pennsylvania consumers have the right to request and receive broadband access service to the Internet from their incumbent local exchange carrier (ILEC), the established local telephone company. These companies include Verizon Pennsylvania, Verizon North, CenturyLink, Frontier, Windstream, and other smaller companies. This law is set out in Chapter 30 of the Public Utility Code at 66 Pa. C.S. §§ 3011-3019.
2. Under state law, the ILEC must make broadband access service available that meets the Pennsylvania statutory standard download speed of no less than 1.544 megabits per second (Mbps) and an upload speed of no less than 0.128 Mbps. Various providers of broadband access service in Pennsylvania, including the ILECs, often make available broadband access service to the Internet at much higher speeds. However, the only carriers that must make broadband available under state law are the ILECs.
3. Pennsylvania state law requires that the ILECs must make such broadband access service available and provide it within ten (10) business days from the date the consumer requests such service. 66 Pa. C.S. § 3014(b)(5).

4. The ILECs may make the requested broadband access service available using any technology. Such technologies can include wireline-based network facilities and service (e.g., digital subscriber line, or DSL, and fiber optic based service), wireless service and products, and satellite service. 66 Pa. C.S. § 3014(n)(1).
5. The ILEC remains the only provider responsible to make available the requested broadband access services even if service is ultimately provided through a partnership or other arrangement with an affiliated or non-affiliated entity. 66 Pa. C.S. § 3014(n)(2).
6. The Pennsylvania Public Utility Commission (PUC) regulates only the availability and provisioning of broadband access service to the Internet by the ILECs. The PUC does not regulate the prices for these broadband access services, the delivery of these services that exceed the 1.544 Mbps download and 0.128 Mbps upload speed standards, or broadband access service provided by other entities like cable companies.
7. Consumers are encouraged to contact their respective ILEC on any issues they are having with the ordering and/or provisioning of broadband access service required by Chapter 30.
8. If broadband access service is not made available by the ILEC at the Pennsylvania statutory standard speed of 1.544 Mbps down and 0.128 Mbps up, and a requesting consumer is not satisfied after contacting the ILEC, the consumer may complain to the PUC. Informal consumer complaints and inquiries can be directed to the PUC's Bureau of Consumer Services (BCS) at 1-800-692-7380, or by using the PUC's website at [www.puc.pa.gov/filing\\_resources/filing\\_complaints.aspx](http://www.puc.pa.gov/filing_resources/filing_complaints.aspx), and the informal complaint electronic form at [www.puc.state.pa.us/filing\\_resources/filing\\_complaints/informal\\_complaint\\_form.aspx](http://www.puc.state.pa.us/filing_resources/filing_complaints/informal_complaint_form.aspx). Formal complaints can be filed with the Secretary's Bureau of the PUC. Formal complaints will be decided before the PUC's Office of Administrative Law Judge and may require participation at an in-person or telephonic hearing. More information on informal and formal complaints can be found on the PUC's website at [www.puc.pa.gov/filing\\_resources/filing\\_complaints.aspx](http://www.puc.pa.gov/filing_resources/filing_complaints.aspx).
9. Pennsylvania consumers who experience difficulty obtaining broadband access service to the Internet from an ILEC can contact the Office of Consumer Advocate at (717) 783-5048 or the OCA's website at [www.oca.state.pa.us](http://www.oca.state.pa.us) or the Office of Small Business Advocate at (717) 783-2525 or the OSBA's website at [www.osba.pa.gov/Pages/default.aspx](http://www.osba.pa.gov/Pages/default.aspx). Pennsylvania consumers can also obtain further information on the availability and speeds of broadband access service to the Internet from the Pennsylvania Department of Community and Economic Development (DCED) at <https://dced.pa.gov/broadband-resources/>.

**FOR FURTHER INFORMATION, CONTACT THE PUBLIC UTILITY COMMISSION:**

**Write**

PA Public Utility Commission  
Bureau of Consumer Services  
400 North Street  
Harrisburg, PA 17120

**Call**

1-800-692-7380  
For people with speech or hearing  
loss, dial 7-1-1 (Telecommunications  
RelayService)

**Website**

[www.puc.pa.gov](http://www.puc.pa.gov)



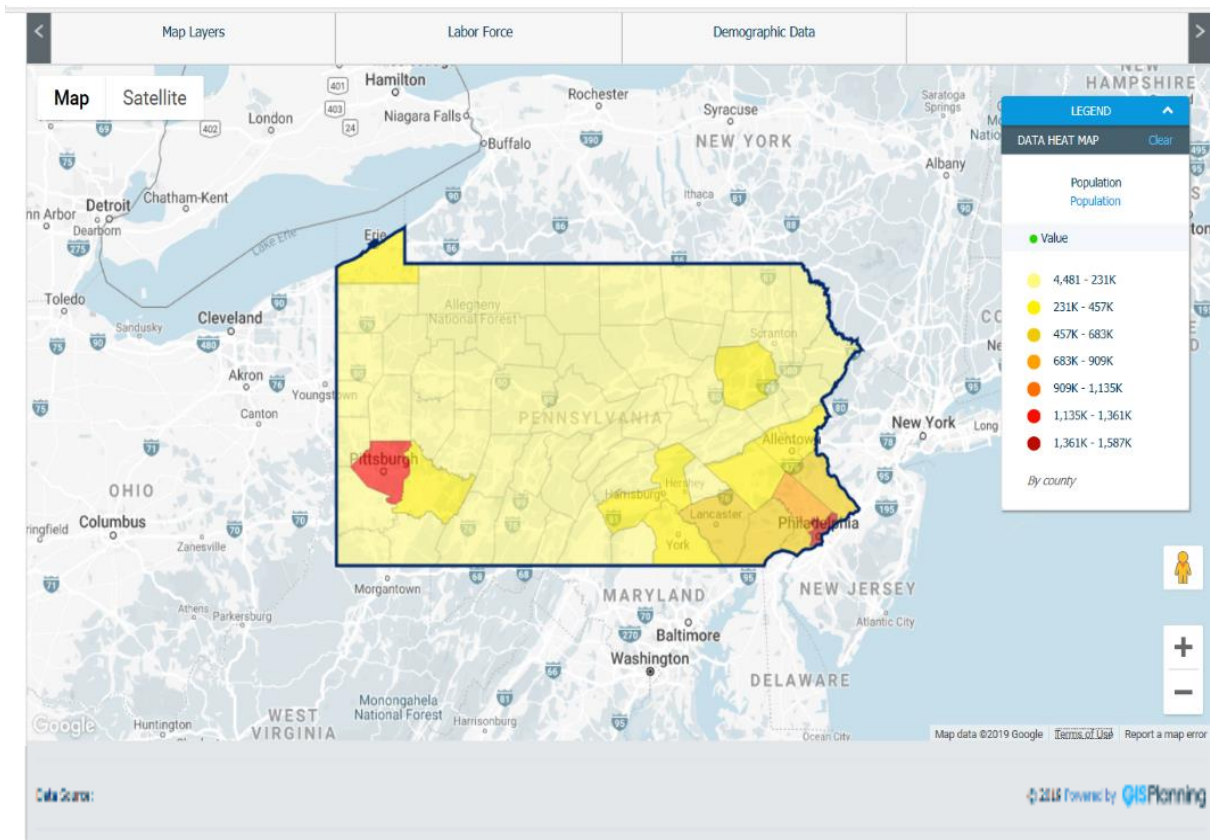
Source: Developed by the Pennsylvania Public Utilities Commission.



## Appendix C - Pennsylvania Population Map and Broadband Resources Maps

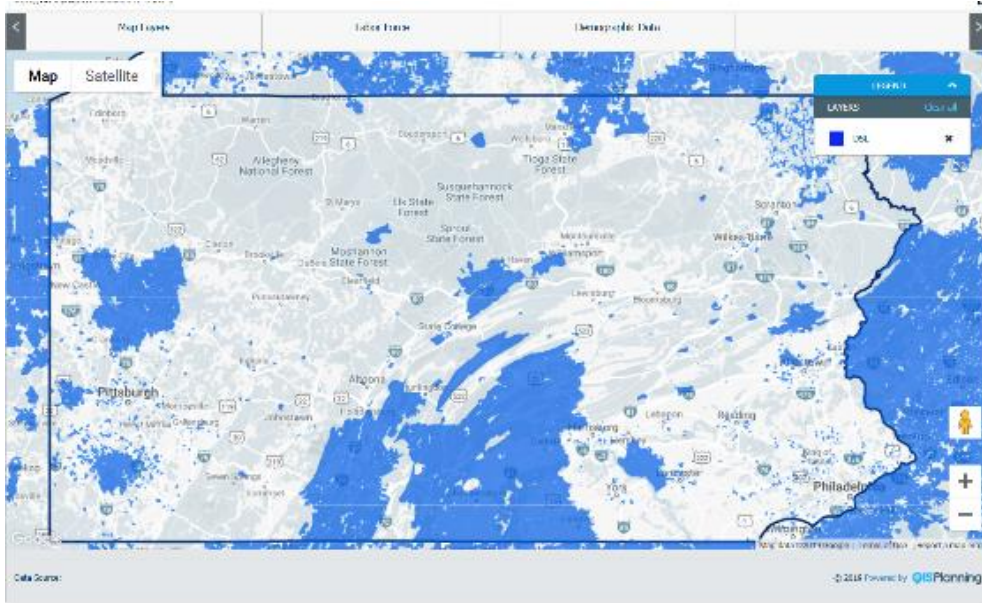
LBFC generated the following series of maps from the existing DCED Broadband Resource webpage (<https://dced.pa.gov/broadband-resources/>). The “Pennsylvania Population Map” provides a snapshot (based on 2024 population estimates) of the population for each of 67 counties in the Commonwealth of Pennsylvania for consideration when viewing the other six maps. Each of the following six broadband resources maps reflects a specific type of broadband service coverage by all providers throughout Pennsylvania, accurate as of December 31, 2016, that were generated based on the six broadband layer options available on the DCED webpage (i.e., DSL<sup>a</sup>, other copper wire (non-DSL), cable, fiber, terrestrial (land based) fixed wireless via radio link<sup>b</sup>, and satellite (wireless)).

### Pennsylvania Population Map (2024 Projection)



Note: Map was generated based on 2024 population projections contained in the Demographic Report provided by Applied Geographic Solutions.

## DSL



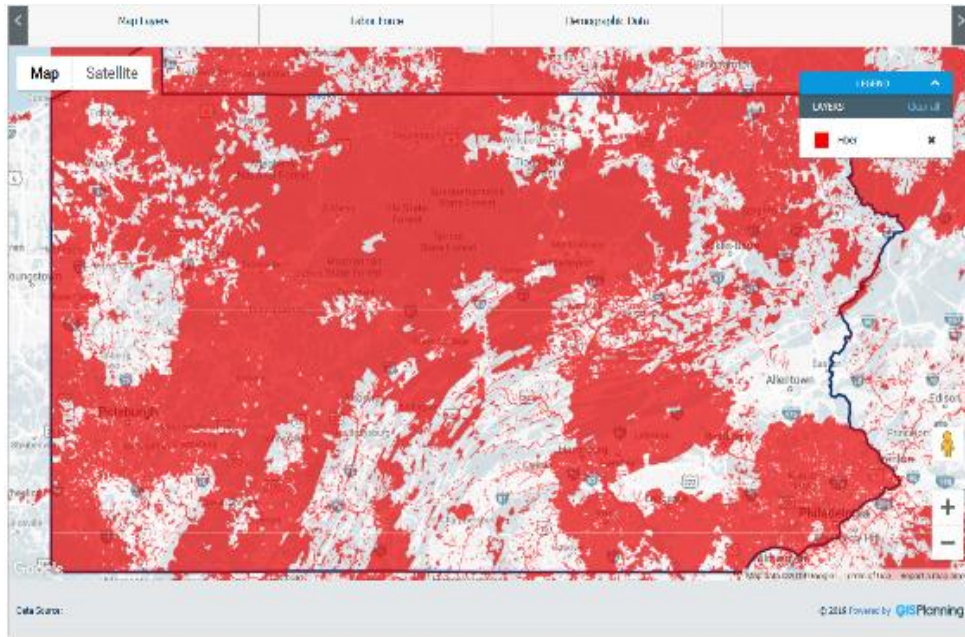
Note: Map generated based on FCC Form 477 data accurate as of December 31, 2016. Areas in blue are covered by DSL.

## Other Copper Wire (non-DSL)



Note: Map generated based on FCC Form 477 data accurate as of December 31, 2016. Areas in yellow are covered by other copper wire (non-DSL).

## Fiber



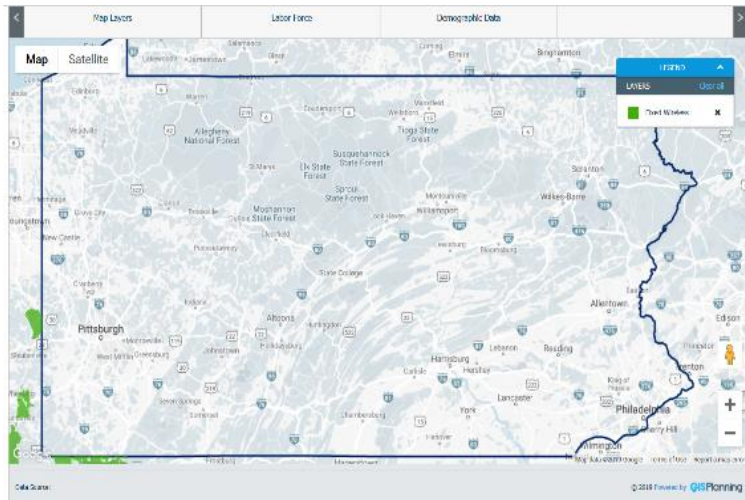
Note: Map generated based on FCC Form 477 data accurate as of December 31, 2016. Areas in red are covered by fiber.

## Cable



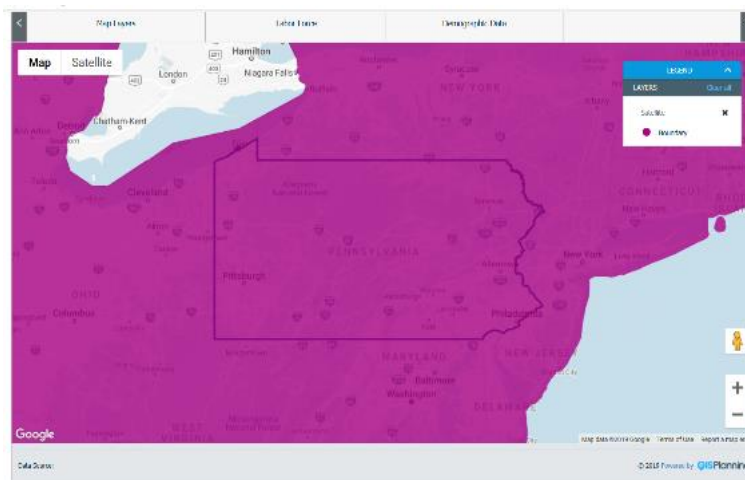
Note: Map generated based on FCC Form 477 data accurate as of December 31, 2016. Areas in purple are covered by cable.

## Fixed Wireless



Note: Map generated based on FCC Form 477 data accurate as of December 31, 2016. Areas in green are covered by fixed wireless via radio link.

## Satellite



Note: Map generated based on FCC Form 477 data accurate as of December 31, 2016. Areas in magenta are covered by satellite (wireless).

<sup>a</sup> DSL and other copper wire (non-DSL) coverage are shown on separate maps in that these maps were generated based on December 31, 2016 data that is no longer available. The data currently available on the DCED webpage “Broadband Resources” has been updated to reflect data accurate as of December 31, 2018 and it is no longer possible to generate a map, based on data accurate as of December 31, 2016, reflecting a combination of both DSL and other copper wire (non-DSL).

<sup>b</sup> Unlike DCED’s previous broadband website, the current DCED Broadband Resources webpage (<http://dced.pa.us/broadband-resources/>) did not have a map layer option, based on data accurate as of December 31, 2016, that allowed for the creation of a map that also reflects terrestrial (land based) mobile wireless via radio link coverage. The mobile wireless via radio link map layer option, based on data accurate as of December 31, 2018, was incorporated and made available on February 6, 2020, by GISPlanning who hosts the DCED “Broadband Resources” webpage based on the latest available FCC Form 477 data.

Source: Department of Community and Economic Development and © 2019 Powered by GISPlanning.

## Appendix D – Bona Fide Retail Request Forms (BFRR)

### Bona Fide Retail Request

20-1925  
7-05



The Pennsylvania legislature recently enacted a new law instructing Verizon and some other telephone companies to give their Pennsylvania customers an opportunity to complete a Bona Fide Retail Request (BFRR) for DSL service. This program may speed DSL deployment to your immediate area, but it also requires that you commit to purchase DSL service for a year. Under this program, if 50 customers or 25% of the customers in your nearby community, whichever is less, commit to purchase DSL for a minimum of one year, Verizon will deploy DSL in that community within 12 months. Verizon will make up to 40 BFRR deployments each year.

In order to participate in this program, you must provide the information below, sign and date this form and return it to Verizon. When Verizon receives enough one-year service commitments to proceed with plans for DSL deployment in your area, you will be notified of the expected DSL availability date.

Yes, I would like to participate in the BFRR program.

#### Service Address

I am a:  Residence  Business

Business / Company Name: \_\_\_\_\_

Customer Name: \_\_\_\_\_  
First MI Last Suffix

Service Telephone Number: \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ \*Account Number \_\_\_\_\_

\*Your account number can be located on the first page of your bill. It is a thirteen digit number consisting of your billing telephone number plus a three digit code.

Street Address Line 1: \_\_\_\_\_

Street Address Line 2: \_\_\_\_\_

Unit: \_\_\_\_\_

City: \_\_\_\_\_ State: PA Zip Code: \_\_\_\_\_

Email Address (if available): \_\_\_\_\_

#### Mailing Address:

Same as Service Address

Street Address Line 1: \_\_\_\_\_

Street Address Line 2: \_\_\_\_\_

Unit: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_

#### Commitment to Purchase

If Verizon makes DSL available in my community as a result of the BFRR program, I agree to purchase DSL service from an Internet Service Provider (ISP) in my area for one year. My commitment is based on an understanding that where DSL service is currently available, ISPs are charging as low as \$30 per month for the service with a qualifying package.

I understand that I will not begin to be billed unless and until the service is actually provided to me.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

I would like to receive information on how I can sign-up others in my community for this program.

Aggregator ID# (if available): \_\_\_\_\_

Please return this form to:  
IMAGING CENTER – BFRR  
P.O. Box 9000 4<sup>th</sup> FLOOR  
ANNAPOLIS, MD 21401-9000

If you have questions about this program, please go to [www22.verizon.com/ForYourHome/BFRR](http://www22.verizon.com/ForYourHome/BFRR) or call the contact number shown on your telephone bill.



**Individual Written Request for Advanced Services - Bona Fide Retail Request Program**

I, \_\_\_\_\_ (print name of person or entity), seek advanced services pursuant to the Bona Fide Retail Request Program ("BFRR") of Alltel Pennsylvania, Inc.

Describe the advanced service requested, including requested speed of service:

\_\_\_\_\_

Number of lines requested: \_\_\_\_\_

Service address (street address, city/town, zip code): \_\_\_\_\_

Phone number at service address: \_\_\_\_\_

Designate name (if applicable): \_\_\_\_\_

Contact address (customer or designate) (street address, city/town/ zip code): \_\_\_\_\_

Contact phone number (customer or designate): \_\_\_\_\_

Please indicate your acceptance of each statement below by placing your initials in the space provided.

**Initials:** \_\_\_\_\_ I verify that the information provided above is true and correct to the best of my knowledge.

**Initials:** \_\_\_\_\_ I verify that I have the authority to sign on my behalf and /or on behalf of any entity listed above.

**Initials:** \_\_\_\_\_ I agree to provide a written notice and update regarding the foregoing information in the event of a change of residence or change in customer account responsibility.

**Initials:** \_\_\_\_\_ I understand that to be considered a Bona Fide Retail Request, Alltel must receive written requests for a minimum of 50 retail access lines, or 25% of retail access lines within a community, whichever is less.

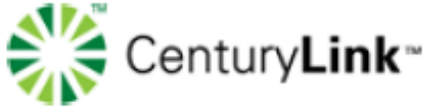
**Initials:** \_\_\_\_\_ I commit to subscribe to the requested advanced service for a minimum of one (1) year subject to my agreement to the Company's price and terms.

Alltel will provide written confirmation of its receipt of this Individual Request For Advanced Services to the contact address indicated above. Within 30 days of receipt of a qualified BFRR (see section I. C. preceding), Alltel will provide notification, to the contact address indicated above, of the expected date of the availability of the service requested including rates and terms in effect at that time.

**Submit this completed and signed form to:**

**Alltel Pennsylvania, Inc., Attn: Donna French, Bona Fide Retail Request Program, 109 Crytzer Road, Kittanning, PA 16201**

Signature of customer or authorized designate: \_\_\_\_\_ Date: \_\_\_\_\_



**Bona Fide Retail Request Program**

The United Telephone Company of Pennsylvania d/b/a CenturyLink Pennsylvania ("CenturyLink Pennsylvania")

**Individual Written Request for Advanced Services - Bona Fide Retail Request Program**

I, \_\_\_\_\_ (print name of person or entity), seek advanced services pursuant to the Bona Fide Retail request Program ("BFRR") of CenturyLink Pennsylvania.

Describe the advanced service requested, including requested speed of service:

\_\_\_\_\_

Number of lines requested: \_\_\_\_\_

Service address for each line (street address, city/town, zip code): \_\_\_\_\_

Phone number at service address: \_\_\_\_\_

Is local service at this address currently provided by CenturyLink Pennsylvania: \_\_\_\_\_ Y / N

Designate name (if applicable): \_\_\_\_\_

Contact address (customer or designate) (street address, city/town/ zip code): \_\_\_\_\_

\_\_\_\_\_

Contact phone number (customer or designate): \_\_\_\_\_

Contact e-mail: \_\_\_\_\_

Please indicate your acceptance of each statement below by placing your initials in the space provided.

**Initials:** , I verify that the information provided above is true and correct to the best of my knowledge.

**Initials:** , I verify that I have the authority to sign on my behalf and /or on behalf of any entity listed above.

**Initials:** , I agree to provide a written notice and update regarding the foregoing information in the event of a change of residence or change in customer account responsibility.

**Initials:** , I understand that to be considered a Bona Fide Retail Request, CenturyLink Pennsylvania must receive written requests for a minimum of 50 retail access lines, or 25% of retail access lines within a community, whichever is less.

**Initials:** , I commit to subscribe to the requested advanced service for a minimum of one (1) year subject to my agreement to the Company's price and terms.

CenturyLink Pennsylvania will provide written confirmation of its receipt of this Individual Request For Advanced Services to the contact address indicated above. Within 30 days of receipt of a qualified BFRR (see section I. B. of CenturyLink Pennsylvania's Plan Description), CenturyLink Pennsylvania will provide notification, to the contact address indicated above, of the expected date of the availability of the service requested including rates and terms in effect at that time.

Submit this completed and signed form to:

CenturyLink, Bona Fide Retail Request Program, 240 North Third Street, Suite 201 Harrisburg, PA 17101

Signature of customer or authorized designate: \_\_\_\_\_ Date: \_\_\_\_\_

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## Appendix E – Responses to this Report



PENNSYLVANIA PUBLIC UTILITY COMMISSION  
COMMONWEALTH OF PENNSYLVANIA  
HARRISBURG, PENNSYLVANIA

THE CHAIRMAN

May 5, 2020

Ms. Patricia A. Berger  
Executive Director  
Legislative Budget and Finance Committee  
P.O. Box 8737  
Harrisburg, PA 17105-8737

**RE: Report – Pennsylvania ILEC Broadband Deployment Mandates (SR 2019-48)  
Observations and Comments**

Dear Ms. Berger:

We would like to express our appreciation for providing the Commission with an advance draft copy of the Committee's (LBFC's) Report *Pennsylvania ILEC Broadband Deployment Mandates*. It is obvious that the LBFC expended considerable time and effort in compiling this Report that contains a useful amount of background information on the implementation of the Chapter 30 law by the Commission, the regulated Chapter 30 ILECs, and the Department of Community and Economic Development.

We are attaching an outline of the Commission's observations and comments on this Report.

Please feel free to contact my Office or Executive Director Seth Mendelsohn with any additional inquiries regarding these substantive comments and clarifications.

Sincerely,

A handwritten signature in cursive script that reads "Gladys Brown Dutrieuille".

Gladys Brown Dutrieuille  
Chairman

Attachment

cc: Vice Chairman David W. Sweet  
Commissioner John F. Coleman, Jr.  
Commissioner Ralph V. Yanora  
Executive Director Seth Mendelsohn

**Pa. PUC Observations and Comments to Legislative Budget & Finance Committee**  
**04-17-2020 Draft Pa. Ch. 30 ILEC Report**

The Pa. PUC provides the following observations and comments on the draft LBFC Report

*Pennsylvania ILEC Broadband Deployment Mandate*. These are outlined below:

1. (Page S-1, 4<sup>th</sup> Paragraph). The discussion of protected services and the use of the term “(...; unless the PUC has determined such service to be competitive”), could convey the erroneous impression that protected services that have been classified as competitive may not be under any form of regulatory oversight. This is not precisely correct. For example, the 2015 competitive reclassification of local exchange services of Verizon Pennsylvania LLC (Verizon PA) and Verizon North LLC (Verizon North – collectively Verizon ILECs) in 153 wire centers freed these services from price regulation. However, it did not deregulate them in terms of applicable requirements regarding the adequacy, quality, reliability, safety and privacy of such services. The same decision also retained the carrier of last resort (COLR) obligation as a component of universal service required of incumbent providers under state law. In the absence of specific competitive classification proceedings, no telecommunications services are substantially “deregulated” other than inter- exchange long-distance services,<sup>67</sup> and a “competitive” classification does not equate to deregulation. The same observation is applicable for the parallel text in Page 7 of the Report.
  
2. (Page S-4, Last Paragraph). The Report observes that the “statutory goals and regulatory authority of Chapter 30 established pursuant to Act 2004 -183 in relation to broadband deployment essentially ceased upon reaching the stated final deployment date of December 31, 2015,” and that “the PUC continues to have some limited ongoing regulatory authority in relation to certain other provisions...” We would like to point out the following:
  - a. The Commission continues to adjudicate annual revenue and rate increase submissions for the non-competitive services of the Chapter 30 ILECs under their respective alternative regulation and network modernization plans (NMPs). To the extent that actual rate increases are put in place, the Commission must rule whether such revenue and rate increases are just and reasonable under applicable Pennsylvania statutory law and the respective Chapter 30 ILEC NMPs. Those filings provide an opportunity to increase rates to support the continued delivery of voice and broadband at speeds already attained.

---

<sup>67</sup> 1 66 Pa. C.S. § 3018. In the more distant past and under the prior version of Chapter 30 (Act 67 of 1993), certain Verizon PA business services (e.g., Centrex, high capacity private line circuits) were found to be competitive

- b. The broadband deployment commitments of the Chapter 30 ILECs have been completed. However, there should not be the false impression that the Chapter 30 ILECs may somehow be “free” to “backslide” from their already established statutory obligations. The continuous “availability” of the broadband access services under the Chapter 30 law standards is an area that this Commission continues to police. The Commission has adjudicated cases on what “availability” under Chapter 30 means for individual consumers and continues to adjudicate informal and formal complaints brought under Chapter 30, including those that address the “availability” of broadband under the parameters set out in Chapter 30.
- c. The Commission manages the interactions of federal policies with its own regulation of telecommunications carriers including the Chapter 30 ILECs (e.g., intra-state effects of the FCC’s 2011 *USF/ICC Transformation Order*). The Commission continues to monitor FCC support policies particularly the use of auctions, to try and ensure that current federal support maximizes the benefit to Pennsylvania from these new national auctions.
- d. Because of federal developments (e.g., auctions of federal Connect America Fund support amounts), the Commission is increasingly becoming involved in issues of broadband deployment within Pennsylvania through its designation of successful bidders as eligible telecommunications carriers (ETCs). Similarly, the Commission’s annual ETC certifications to the FCC enable Chapter 30 ILECs to continue receiving certain levels of support from the federal USF mechanism for the deployment of broadband network facilities. ETC designation by the Commission under federal law is required to receive federal support while also providing the Commission an opportunity to ensure compliance with legislative determinations on voice and broadband in the Commonwealth

The same observations apply to the discussion in Pages 45 -46 of the Report.

Page S-4, last paragraph & Page 45, last paragraph – Same suggested tweak to both locations in the SR 48 Report}

*The statutory goals and regulatory authority of Chapter 30 established pursuant to Act 2004-183 in relation to broadband deployment were essentially fulfilled upon reaching the stated final deployment date of December 31, 2015. The PUC continues to have some limited regulatory authority. . . .*

- 3. (Page 4, Definitions). We would like to provide the following clarifications:
  - a. The term inflation or productivity offset also reflects total factor productivity and technological change. This is also discussed in Page 60, n. 59 of the Report.
  - b. Also, in relation to the term inflation offset the price stability mechanisms with

price cap and price stability index, it should be noted that the service price index formulas are not the only forms of alternative regulation plans approved under Chapter 30. For example, there are Chapters ILECs with streamlined rate base and rate of return regulation as well as a few ILECs with a Chapter 30 waiver that remain under traditional rate base/rate of return regulation.

- c. The term NMP also broadly captures the alternative or streamlined regulation plan parameters under which a Chapter 30 ILEC operates, e.g., the price stability mechanism.
4. (Page 13, Exhibit 1). In regard to the “Last Mile” explanation it should be noted that “broadband connectivity is the most expensive and most lacking in the last mile segment.”
5. (Page-61). The Report references the *Terry R. White v. Verizon North LLC* formal complaint case.  
However, to present a more comprehensive view, one should consider all of recent decisions where the Commission has had to address an ILEC’s obligations under the Chapter 30 or render a decision clarifying the scope of its jurisdiction, including over broadband access service. The Commission suggests including the following decisions:
  1. ***Daskalakis v. Verizon Pennsylvania Inc.***, Docket No. C-2010-2172222 (Order entered April 4, 2011) (while retail broadband access service to the Internet is generally under the FCC’s regulatory purview, Commission jurisdiction remains over of installation, quality, adequacy, reliability, safety and privacy of jurisdictional public utility telecommunications services even if provided over DSL-enabled lines that also provide non-jurisdictional broadband access to retail Internet services).
  2. ***Petition of David K. Ebersole, Jr. and the Office of Consumer Advocate for a Declaratory Order***, Docket No. P-2012-2323362 (Tentative Order entered December 26, 2012; Final Order entered February 28, 2013) (Commission cannot prescribe a specific technology or price by which Verizon can satisfy its broadband deployment commitment; use of joint venture does not excuse Verizon from regulatory responsibility for the service, including quality of service or billing).
  3. ***Brown v. The United Telephone Company of Pennsylvania LLC, d/b/a CenturyLink***, Docket No. F-2012-2310988 (Order entered February 28, 2013) (complaint alleging telephone and internet issues dismissed on preliminary objections remanded to address allegations concerning adequacy of telephone service quality and billing).

4. ***Floyd v. Verizon Pennsylvania LLC***, Docket No. C-2012-2333157 (Order entered April 30, 2013) (Commission retains jurisdiction over customer complaint involving Verizon fiber optic and IP-based service (FiOS Digital Voice) where 911/E911 calling capabilities were is implicated because of customer premises batter back-up power issues).
5. ***Kalasnik v. Verizon Pennsylvania LLC***, 2016 WL 3361904 (2016), Docket No. C- 2016 2532227 (Final Order entered September 1, 2016; Initial Decision dated May 20, 2016) (Verizon has the obligation to make broadband available to 100% of its access lines at 1.544 /0.128 Mbps (down/up) but the Commission has no jurisdiction to require higher speeds under Pennsylvania law).
6. ***White v. Verizon North LLC***, Docket No. C-2016-2532236 (Order entered November 2, 2016) (Commission has jurisdiction to inquire into matters involving the availability and provisioning of retail broadband access services provided by ILECs consistent with applicable Chapter 30 standards).
7. ***Altman v. Verizon Pennsylvania, LLC***, Docket No. C-2015-2515583 (Final Order entered November 18, 2016) (state law does not require telecommunications service be provided over copper line facilities or prevent service migration to a fiber network, but Section 1501 still applies on quality, adequacy, and reliability of service).
8. ***Fielder v. Verizon Pennsylvania LLC***, Docket No. C-2016-2553231 (Order entered February 3, 2017) (jurisdiction over VoIP has not been preempted as an interstate service for all purposes, but rather remains under Commission jurisdiction for the purposes specified in the 2008 VoIP Freedom Act).
9. ***Roberts v. The United Telephone Company of Pennsylvania LLC, d/b/a CenturyLink***, Docket No. C-2017-2632824 (Order on Remand entered June 28, 2018) (the availability of broadband access service provided by ILECs subject to, and defined by, Chapter 30 remains within the Commission's jurisdiction).

