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Pennsylvania Public Utility Commission's Implementation of Chapter 30

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Summary, Conclusions, and Recommendation

In July 1993, the General Assembly amended the Pennsylvania Public Utility Code and enacted Chapter 30[1]—state legislation providing for alternative and streamlined forms of regulation for in-state telephone services provided by long distance and local telephone carriers. Chapter 30 expires on December 31, 2003, unless reenacted by the General Assembly.

Transitioning to Open Competitive Telecommunication Markets

In the early 1980s, the telecommunications industry in the Commonwealth and nationwide started to transition from one in which monopolistic utilities and utility regulators establish the prices consumers pay for telephone services to one in which markets are open, and market forces determine price. In response to such changes, regulators, including the Federal Communications Commission (FCC) and the Public Utility Commission, started to adopt different regulatory approaches.

The transition in Pennsylvania was slow in part because federal policies promoting open markets effectively require that the price paid for a service be related to its cost, and the way in which charges are imposed be related to the way they are incurred. In other words, subsidies are to be removed from service prices. Implementation of such policies presents a major challenge to state utility commissions because they had established local rates by relying on subsidies from toll and access services and business activities (e.g., "yellow pages" advertising) of companies outside their regulatory jurisdiction. They also provided for subsidization of rural rates by more densely populated areas and for residential rates by business rates.

Chapter 30's Role

Chapter 30 helped facilitate the transition to open competitive telecommunications markets by providing for: competitive service provision, alternative rate setting processes, accelerated telecommunication infrastructure modernization, elimination of implicit subsidies that historically helped keep rates low, processes to prevent precipitous increases in local rates as a result of the steps to eliminate subsidies, and continued protection for consumers.

- ***Chapter 30 deemed most intrastate services of long distance carriers competitive effective January 1, 1994.*** (See p. 18.) Chapter 30 prohibited the PUC from prescribing the rates, tolls, charges, rate structures, rate base, rate of return, operating margin, or earnings for competitive services, or otherwise

[1] 66 Pa.C.S.A. §§3001-3009.

regulating the competitive services provided by long distance carriers, with some exceptions.[2]

Chapter 30 deemed message toll services competitive for long distance carriers, but it prohibited them from deaveraging their service prices unless authorized by the PUC. "Deaveraging" involves the alignment of prices in a way that is consistent with the cost of providing the service on specific toll routes, rather than pricing the service based on an average cost for all toll routes. In 1993, one PUC commissioner expressed reservations about rate deaveraging because of its potential adverse impact on universal service and because it would result in higher rates for rural exchanges and lower rates in urban markets, thus discouraging the development of competition in rural markets. In March 1995, the PUC permitted a major long distance carrier to deaverage, despite objections from its Office of Trial Staff (OTS). By July 1997, the PUC issued regulations for interexchange carriers that deleted the explicit prohibition against message toll service deaveraging without prior PUC approval that had appeared in earlier orders and proposed regulations.

- ***Chapter 30 requires the PUC to remain competitively neutral.*** (See p. 25.) Local exchange carriers also provide message toll services, though Chapter 30 immediately deemed such services competitive only for long distance carriers. The PUC, therefore, determined that it would apply the same regulatory procedures adopted in 1997 for long distance carriers to local carriers after they implemented dialing parity. "Dialing parity" allows customers to subscribe to a toll service provider other than their local telephone company and not have to dial a string of long dialing codes in order to place a toll call. In December 1995, the PUC ordered all local telephone companies to implement dialing parity by the second-half of 1997. By October 1997, all but one small local incumbent carrier had approved plans implementing dialing parity as required by the PUC and, by that time, the FCC.[3]

- ***Chapter 30 sought to immediately reduce the PUC's reporting requirements for small companies. Implementation of this statutory provision, however, was delayed for almost two years.*** (See p. 32.) Chapter 30 immediately reduced the reporting requirements of local telephone companies with less than 50,000 access lines. All parties, however, did not agree that the provisions took effect upon enactment of the statute. In April 1995, the PUC responded to a petition from the Pennsylvania Telephone Association (PTA) and reduced certain reporting and auditing requirements for the smaller companies. The

[2]The explicit exceptions are optional calling plans required by the PUC to be offered when justified by usage over the carrier's route and service to aggregator phones. An aggregator telephone is available to the transient public, and includes, but is not limited to, coin telephones, credit card telephones and telephones located in hotels, motels, hospitals, and universities. At its May 1, 2003, public meeting, the PUC announced an investigation to reclassify these services as competitive.

[3]The FCC required implementation of dialing parity to promote competition by February 8, 1999.

PUC order, however, continued to require small companies to file certain financial and other reports annually.

- ***Chapter 30 authorized the PUC to certify more than one local exchange carrier to provide wireline telephone service; however, the federal Telecommunications Act of 1996[4] (TA-96) preempted its policies concerning competition.*** (See pp.12 to 15.) In October 1995, the PUC approved the applications of four companies[5] to compete with the existing, or incumbent, local telephone carriers. When the PUC authorized these carriers to compete, it ordered them to serve both business and residential customers under nondiscriminatory terms and conditions where it is reasonable to obtain the requisite facilities.

  After enactment of TA-96, the PUC could no longer impose or enforce such a requirement since federal policies do not require competitive carriers (CLECs) to serve all customers in the territories where they operate. If they do serve residential customers, they cannot be required to offer a minimum package that meets the PUC's definition of "basic universal service."[6] As a result, "competition" in telecommunications does not mean that all customers have more than one wireline carrier from which to choose. Rather "competition" means that competitors are not prevented from being authorized to provide service and under certain conditions can connect to the incumbent company's network.

  Virtually all Pennsylvania counties currently have more than one wireline telephone carrier that has been issued local telephone numbers to assign to customers. As shown in the Pennsylvania Telephone Association's member map (located at the end of this summary), incumbent local carriers do not serve entire counties since their original franchise is limited to portions of counties. Similarly, competitive carriers may not serve an entire county.

  At the end of 2001, Pennsylvania had 9.4 million access lines, with companies other than incumbents providing service over 1.2 million lines.[7] However, almost half of the competitive companies reporting access lines to the PUC for 2001 reported serving only business customers. At the end of 2001, 68

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[4]47 U.S.C. §§251 et seq.

[5]MFS Intelenet of Pennsylvania, TCG Pittsburgh, MCI Metro Access Transmission Services, Inc., and Eastern Telelogic Corporation.

[6]In 1995, the PUC defined basic universal service to include: (1) single party, voice grade, incoming and outgoing access to the public switched network, and usage within a local calling area; (2) touch tone capacity; (3) annual local directory; (4) access to operator services; (5) access to directory assistance; (6) access to telecommunications relay service and other services designated for persons with disabilities; and (7) access to emergency services.

[7]According to the FCC, as of June 2002, competitive carriers account for 11.4 percent of the nation's switched access lines.

percent of the incumbent companies' access lines were residential lines; 37 percent of the competitive companies' lines were residential.

- ***Chapter 30 provided for all local exchange carriers to file petitions and plans for alternative or streamlined regulation.*** (See pp. 33 to 38.) Chapter 30 required all local exchange carriers, both the existing incumbent and new competitive carriers, to file petitions and plans for alternative or streamlined regulation, or show cause why they should not file.[8] After TA-96, however, the PUC determined that competitive carriers would not be required to file Chapter 30 petitions and plans. In 1999, the PUC noted that it could not require competitive carriers to implement Chapter 30's requirements because TA-96 preempted state laws and regulations that create a barrier to competition, and key Chapter 30 requirements could be construed as such a barrier. As a result, small incumbent companies[9] have had to comply with Chapter 30's requirements, whereas large competitive local exchange carriers, such as MCI Worldcom Communications, AT&T Communications, PECO Adelphia, and Adelphia Business Solutions of Pennsylvania, do not.

  Chapter 30 anticipated that local exchange company petitions for alternative and streamlined regulation would be reviewed and approved within nine months (180 working days). This did not occur, even though the PUC immediately adopted implementing administrative procedures. The procedures allowed for litigated proceedings similar in nature to rate case proceedings. Some parties to the proceedings called for rate base/rate of return analysis to determine if a company's proposal for alternative regulation was "just and reasonable." They called for such analysis even though alternative regulation proposals were based on rates the PUC previously approved. Typically two or three years lapsed from when a company initially filed its petition and the last PUC related order approving it.

  Bell Atlantic-Pennsylvania (Verizon PA)[10] was the first and only company to file in 1993. The PUC approved the company's alternative regulation petition with modifications in June 1994 and subsequently approved its network modernization plan in July 1995. The Office of Consumer Advocate (OCA) and others challenged key provisions of the orders. Issues raised by the not finally resolved until the state Supreme Court issued its ruling in late

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[8]Companies have five years from the effective date of the act to file or show cause.

[9]The PUC only waived Chapter 30 petition and plan provisions for four small incumbent local companies that provide most of their services outside of Pennsylvania.

[10]Bell Atlantic-Pennsylvania started to do business under the name Verizon-Pennsylvania in 2000 following the merger of the Bell Atlantic and GTE holding companies. The two holding companies merged following review and approvals by 27 state regulatory commissions and the Federal Communications Commission, and clearance from the US Department of Justice. Throughout the report we have continued to use company names that were in place when Chapter 30 was enacted. We have also reported information separately for Bell Atlantic—Pennsylvania (Verizon-Pennsylvania) and GTE North (Verizon-North) since the merger of the two parent companies did not result in the merger of the two operating companies.

parties were December 1997. Twenty-two of the 33 incumbent carriers waited until 1998 to file their petitions and plans, and PUC orders resolving all issues related to their approval were not issued until late July 2001, and in April 2002 in the case of GTE-North.

TA-96 was enacted before the majority of incumbent carriers' petitions were filed. In July 1997, the PUC indicated it would grant "rural carriers" having less than two percent of the subscriber lines nationwide, and meeting certain other conditions, a two-year standing suspension[11] from TA-96's carrier interconnection obligations.[12] Because TA-96's goals to promote advanced telecommunications services was consistent with one of Chapter 30's goals, the PUC conditioned the suspension on small companies filing alternative regulation and network modernization plans and deploying advanced telecommunications networks to public schools, libraries, and other public facilities in rural Pennsylvania. In January 2003, the PUC voted not to deny the rural carriers' request to extend the suspension for another three-year period.

- ***Chapter 30 required local companies to submit plans to accelerate their deployment of technologies to provide for broadband-capable telecommunication networks fifteen years earlier (2015) than would have occurred under rate base/rate of return regulations (2030) in order for the PUC to approve their petitions for alternative or streamlined regulation.*** (See pp. 39 to 46.) In the early 1990s, the PUC contracted for a telecommunications infrastructure study. The PUC consultants produced a seven-volume report that served as the basis for key Chapter 30 provisions concerning network modernization. The consultants found that Pennsylvania's telecommunications network was comparable to that of other states. Even though the networks had been upgraded through the deployment of new technologies during the 1980s and 1990s, at the time, broadband services at speeds of 1.544 mbps and higher were typically offered only over dedicated networks for very large business and government users.

  The PUC consultants recognized that the Commonwealth's telecommunication networks would need to be modernized with specific technologies, including 100 percent digital switching, signaling and intelligence systems, interoffice fiber, and fiber feeder outside plant, for the state's telecommunication network to be broadband-capable. The consultants reported such deployment would occur in 2030 based on companies' existing technology deployment schedules under rate base/rate of return regulation.

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[11]Specifically, the PUC granted a 2-year suspension with the option for three subsequent 1-year extensions, for a total of 5-years suspension from interconnection obligations.

[12]TA-96 establishes certain duties associated with competition, including, but not limited to, interconnection agreements and resale of incumbent's services. The PUC's grant of suspension did not exempt rural carriers from all duties associated with competition, only from the duty to interconnect.

The PUC's consultants also considered what would happen if such technologies were deployed on an accelerated basis under rate base/rate of return regulation. They concluded this would involve added costs and increases to local service rates, since capital investment is a prime driver of increased local rates under rate base/rate of return. Local carriers, moreover, would be exposed to added financial risks since the companies would need to make major up front investments, but would not realize proportionate revenue gains until much later since most consumers typically do not rush to purchase new services.[13] The companies faced even greater financial risk if the technology deployment was accelerated and consumers did not use new advanced services. The PUC consultant recognized this would present a major challenge to accelerating technology deployment to modernize networks since:

- Only 50 percent of those they surveyed indicated a willingness to pay for deployment of advanced telecommunications technology through higher prices for basic telephone services, and just over 70 percent indicated that minimizing increases in residential basic exchange rates was the most important goal of state regulators when designing state policies.

- Accelerated deployment of technologies would cost anywhere from $0.30 per line per month to $0.66 from 1993 through 2030.

- The cost for basic telephone service for the typical household could be expected to rise by an average of $25 per year (in 1990 dollars) and by as much as $63 in the year 2005 (even higher in subsequent years) if demand for new services did not materialize and aggressive deployment of technology occurred.

The PUC consultants reported other states were moving away from rate-based rate of return to alternative forms of regulation to overcome the disincentives it provided for modernizing networks and its passing along to consumers in their local rates the added costs of accelerated modernization. At least 30 states[14] had moved away from rate base/rate of return to alternative forms of regulation to establish retail prices for local telephone service prior to Chapter 30's enactment.

The 1993 PUC consultant report provided the basis for key Chapter 30 network modernization provisions. Such provisions include: its technology neutrality provision and definition of broadband ("a communications channel using any technology and having a broadband equal to or greater than 1.544 [mbps] megabits per second"), its definition of universal broadband availability (1.544 mbps within five days of a local telephone customer request), its

[13]The PUC's consultants did not factor the way in which competition might influence their economic analysis.
[14]Including California, Florida, Illinois, Maryland, Michigan, New Jersey, New York, Texas, and West Virginia.

requirement for commitment to accelerated deployment (by 2015 rather than 2030), and the technologies it requires to be addressed in company network modernization plans (digital switches in central offices, fiber optic trunk line capacity, and intelligent network signaling capacity).

The PUC consultants' report and Chapter 30 do not use the FCC's definition of broadband. The FCC's definition of "high speed" service (i.e., 200 kbps capability in at least one direction) is four times the transmission speed attainable with a regular telephone line and a computer modem (200 kbps versus 56 kbps) and seven times less than Chapter 30's broadband requirement (1.544 mbps, or 1544 kbps, versus 200 kbps).

- ***Consistent with Chapter 30 and their network modernization plan (NMP) requirements, local exchange carriers have accelerated the deployment of a broadband-capable infrastructure.*** (See pp. 63 to 89.) It is not possible to determine if Chapter 30 has achieved its goal of full deployment of a broadband-capable network since Chapter 30 does not require 100 percent deployment until 2015. LB&FC staff, however, were able to review company progress in deployment of Chapter 30's required technologies by comparing all available information on their progress against the PUC consultants' projections for such deployment under company rate base/rate of return deployment schedules, Chapter 30 accelerating deployment to 2015, and company deployment targets in their PUC-approved NMPs. We found, for example:

  Digital Switching: Bell Atlantic deployed this broadband technology throughout its network five years earlier than it would have if Chapter 30 had not accelerated deployment (i.e., full deployment was achieved by 2000 rather than 2005). Other large and mid-sized companies that did not have digital switching in place prior to 1993 had such switching deployed by the time their NMPs were approved three to nine years after Chapter 30 was enacted.[15]

  Intelligent Network Signaling: Bell and Commonwealth Telephone Company met Chapter 30's and their NMP targets for deploying this broadband technology. GTE-North deployed the technology more than 15 years earlier (2002 versus 2020) than anticipated by PUC consultants in 1993. Small companies also had such technology deployed by the time the PUC approved their NMPs.

  Interoffice Fiber Optic Transport: By 2000, Bell had achieved 100 percent deployment of this technology—five years earlier than would have occurred if Chapter 30 had not accelerated deployment. Commonwealth also achieved

[15]Some companies accelerated deployment of certain technologies following the enactment of Chapter 30, in part, in anticipation of the PUC approving their alternative regulation petitions.

full deployment six years earlier than would have occurred without Chapter 30. By 2000, moreover, GTE had achieved 94 percent deployment, with 100 percent projected by 2005—15 years earlier than would have occurred if Chapter 30 had not accelerated deployment.

Deployment to Schools, Industrial Parks, and Health Care Facilities: Chapter 30 recognized that everyone would not be able to have broadband technology available at the exact same time. It, therefore, established priorities for facilities of public interest. By 2000, Bell had met its NMP target and deployed fiber beyond the nearest right-of-way (as required by Chapter 30) to as far as the serving pole or manhole to 2,240 schools, 465 industrial parks, and 955 health care facilities. Commonwealth also met its NMP target and achieved 100 percent full deployment to such facilities by 2000. United/Sprint had made considerable progress toward such deployment by the time it submitted its NMP. Smaller companies have reported to the Pennsylvania Telephone Association (PTA) that they are on target or have exceeded their Chapter 30 NMP targets for such deployment.

Universal Broadband Availability: Chapter 30 does not anticipate universal broadband availability until 2015. Based on our review of updated information, Bell has already met or exceeded its 2004 broadband availability commitment targets for urban and suburban areas. As of 2002, at least 74 percent of the company's access lines in urban exchanges have broadband available (i.e., transmission speeds at least equal to 1.544 mbps and available within five days), 50 percent in suburban exchanges, and 39 percent in rural exchanges.[16, 17]

For several reasons, Bell can be expected to meet its 2004 rural commitments, which the PUC accelerated when it modified Bell's initially proposed NMP. In approximately a one-year period, the company increased its deployment of DSL (one of several different types of broadband service it provides) from 20 percent to 40 percent of its rural exchanges. The company's broadband availability percents, moreover, understate the extent to which broadband services are actually available through its network, and some of the known undercounting disproportionately affects rural exchanges. For example, the company's broadband business line counts only include broadband lines in distribution areas where spare fiber is available. Broadband business lines in distribution areas without spare fibers are not included in its broadband line counts. The company indicates that it conservatively

[16]These measures include DSL service available to residential customers at 1.544 mbps (not DSL service below 1.544 mbps) and business lines with spare fiber currently present in the distribution area.

[17]In a PUC May 2002 order, it found that Bell's NMP biennial update is inconsistent with its view that Bell had previously committed to provide service at 45 mbps. The PUC also explained that DSL service offerings do not consistently achieve a 1.544 mbps standard.

measures broadband lines in its network to avoid the possibility of double counting.

Companies count broadband lines in different ways, and, therefore, their reported broadband availability "percents" cannot be compared. Commonwealth, for example, measures its commitment to broadband availability as a ratio of T 1 lines (or their cable or fiber equivalent) to its total access lines. Using this standard, Commonwealth has Chapter 30 broadband service available to more than half of its network, and is significantly in advance of its NMP targets.[18] United/Sprint measures broadband availability by combining T 1 lines and a variety of other broadband services in relation to its total access lines. Using such measures, United/Sprint is also meeting its NMP targets and has broadband available throughout at least half of its network.

Our review of the PUC's NMP reporting guidelines, which its staff use to assess company compliance with Chapter 30 and NMP requirements, found the guidelines do not distinguish between information required to assess compliance and information of interest to the PUC, and they do not direct companies to provide information in the form needed to assess compliance with Chapter 30's broadband availability requirements. In part, this explains why nearly two years have passed since Commonwealth and United/Sprint submitted biennial updates to their NMPs, and additional information in response to PUC requests, and the Commission accepting or rejecting their NMP updates.

To define "rural" for purposes of Chapter 30, the PUC relied on several definitions relevant to telecommunications. Such definitions are not consistent with U.S. Census definitions or those of the Center for Rural Pennsylvania, which classifies counties as mostly rural and mostly urban. Without standard definitions of "rural" for purposes of Chapter 30, it is not possible to draw conclusions about the extent to which Chapter 30 has achieved its goal of balanced deployment in urban, suburban, and rural areas. It is also not possible to compare the extent to which different carriers are deploying more aggressively in rural areas because at least 20 of the "Chapter 30 rural carriers" operate in mostly urban counties, including Allegheny, Chester, Dauphin, Lehigh, and Montgomery.

- ***Chapter 30 provided for local exchange companies to petition the PUC to have "Chapter 30 noncompetitive services" classified as competitive.*** (See pp. 90 to 102.) As part of Chapter 30 proceedings, the PUC classified 13 services competitive for local telephone companies: directory advertising ("yellow pages"), billing and collection, customer premise equipment, inside

[18]Bell does not measure its broadband availability based on the percent of lines that can be provided T 1 service within five days. Conservatively, it estimates its broadband availability at 60 percent using such a measure.

wiring, voice mail, certain intraLATA toll, centrex, paging, repeat call, speed dialing, high capacity and high capacity lightwave, certain business, and directory assistance services. We found, however, that most of the 13 services are not telecommunications services (e.g., directory advertising or "yellow pages"), are outside of the regulatory jurisdiction of the PUC (e.g., paging), or had previously been deregulated for purposes of rate setting by the PUC (e.g., billing and collection activities).

- ***The alternative forms of regulation approved by the PUC control company revenue and consumer rates through indexed price cap formulas, which have not resulted in significant basic local service rate increases.*** (See pp. 103 to 119.) The PUC approved forms of indexed price cap regulation[19] for all but fifteen small companies.[20] Under such regulation, maximum revenue levels are established and indexed to an inflation rate adjustment mechanism, such as the Gross Domestic Product Price Index (GDP-PI). Price cap regulation formulas also include a productivity offset, which requires companies' average real prices to fall annually by the specified productivity offset.[21] The offset is intended to represent the percentage reduction in prices that the company is deemed technologically capable of implementing without jeopardizing its financial integrity. Price cap formulas can be adjusted to reflect matters outside of the control of the company. For example, if a PUC order changes the definition of "basic universal service" to include services not currently provided that significantly increase company expenses, such an order could result in an upward adjustment to the revenue base in the approved price cap formula.

  Price cap formulas establish the overall revenue amount that can be realized by a company for its regulated services. When the revenues realized under the price cap formula are greater than the amount allowed, the company must reduce its rates. When they are not at the amount allowed, it may increase its rates to generate added revenue up to the allowed amount.[22]

  The price cap formulas approved by the PUC are not all the same. For example, Chapter 30 suggests a 2.25 percent productivity offset would be reasonable. The PUC approved productivity offsets ranging from 2.0 to 2.93 percent. Bell, the largest company, has the highest productivity offset. Most companies have 2.0 percent offsets. One small company with less than 50,000 lines, however, has an offset of 2.8 percent.

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[19]Chapter 30 petitions refer to the company's indexed price cap regulation as "Price Stability" or "Price Change Opportunity" indices or formulas.

[20]Fifteen small companies did not petition for price cap regulation. Increases and decreases in their rates for noncompetitive services are subject to simplified rate filing processes that rely on certain rate of return data.

[21]Price cap regulations are intended to encourage cost minimizing behavior and result in greater productivity efficiency by allowing the company to retain incremental earnings above costs.

[22]Such increases and decreases are not automatic. They require tariff filings and PUC acceptance.

When approving company petitions for alternative regulation, the PUC limited the way in which the price changes resulting from the application of the price cap formulas could be applied. For example, it imposed a "freeze" on Bell's "protected service" rates.[23] The company proposed a two-year rate freeze.[24] The PUC extended it through 1999, and subsequently through December 31, 2003. Temporary revenue moratoriums were also imposed on Commonwealth and the TDS Telecom companies.

Bell customers typically have not experienced any noncompetitive service rate increases as a result of the application of the company's revenue price cap formula. The company made eight filings to the PUC from 1995 through 2002 that in all but one case[25] resulted in reduced rates for noncompetitive services. Bell estimates the cumulative effects of the recurring reductions are thus far $350 million.

Chapter 30's price cap regulation has resulted in only very modest increases in basic local rates. LB&FC staff reviewed company price cap regulation filings provided by the PUC and found: ALLTEL increased its per line local service rates between $0.10 and $0.25 cents per month in June 2002; Commonwealth by $0.21 per month in April 2002; Buffalo Valley by $0.11 per month in June 2002; Conestoga by $0.12 per month in June 2002; Denver & Ephrata by $0.16 per month, and Ironton by $0.27 per month in June 2002. The TDS companies' consumers received a one-time credit in their December 2002 bill as a result of the companies' price cap regulation. To the extent that some consumers have experienced relatively large increases in their basic local rates, such increases are not due to Chapter 30's alternative regulation but, as explained below, to its access charge and rate rebalancing and restructuring provisions.

- ***Chapter 30 required local companies to comply with its requirements concerning access charges in order for the PUC to approve their Chapter 30 petitions and plans. Such compliance has resulted in Chapter 30 petitions including revenue neutral rate rebalancing and restructuring for all companies, except Bell. Such rebalancing and restructuring is required to remove the local rate subsidies historically provided by access and toll charges and to allow for competitive markets.*** (See pp. 120 to 148.) Consumers probably are not aware that part of the costs they pay for toll service

[23]As defined by Chapter 30, protected services include the following telecommunication services provided by a local exchange telecommunications company, unless the commission determines, after notice and hearing, that the services are competitive: telecommunications service provided to business or residential consumers that is necessary for completing a local exchange call; touch-tone service; switched-access service; special-access service; and ordering, installation, restoration and disconnection of these services.
[24]At the time of its proposal, the company's basic telephone service rate had not been increased since 1985.
[25]The exception occurred with Bell's 2000 filing, which resulted in the PUC in 2002 approving a $10.4 million increase for noncompetitive services such as directory assistance, call waiting, etc., to allow the company to comply with provisions in the PUC's Global Order.

involve the payment of access rates. These are rates local companies charge to toll carriers to cover local network costs associated with customers placing and receiving interstate and intrastate toll calls. Toll carriers pass such costs along to consumers in toll rates.

Prior to the start of competition and the AT&T divestiture from the Bell System, a portion of the cost of the local network was simply assigned to interstate services regulated by the FCC, and such costs were included in AT&T's interstate long distance rates. Public utility commissions took similar approaches for in-state toll services. Such methods, however, were no longer workable with the development of competition and the AT&T divestiture, and the FCC started to promulgate rules[26] to establish access charge rates for interstate long distance services. The FCC determined that interstate access rates should be related to costs, costs should be recovered in the same way they are incurred, and they should be recovered from end-users. For this reason, local telephone bills may include a Federal Subscriber Line Charge (SLC) to cover part of the cost of the local telephone network when handling interstate toll calls. Since the late 1980s, the FCC has continued to work to achieve cost-based access rates.

The PUC in the 1980s was reluctant to substantially reduce intrastate access charges to align them with costs or restructure rates to mirror the rate structure the FCC had adopted because such changes would create pressure to increase local rates. Like other state commissions operating in monopoly environments, it had established local rates through residual pricing methods. Using such a method, it priced access, toll, and local vertical services (e.g., call waiting, etc.) at rates well above their costs, but at prices that the market would bear, in order to keep local basic rates affordable.

Chapter 30's Access Charge Requirements. Chapter 30 includes specific requirements concerning access charges that must be met in order for the PUC to approve a company's petition for alternative or streamlined regulation. The statute's section on access charges authorizes the PUC to approve both revenue and competitive neutral, intrastate access tariff changes to make intrastate access rates and structures consistent with interstate rates and structures. Chapter 30 explicitly applies its requirements to companies with more than 250,000 lines; however, in Chapter 30 proceedings the requirements were also applied to smaller companies.

As a result, some consumers have experienced relatively high increases in their basic rates, despite the efforts of the OCA and OTS. For example, in order for the company to comply with Chapter 30's access provisions, United/

[26]Parts of the FCC rules involve apportionment of costs between inter- and intrastate. FCC rules and policies, therefore, have a "domino" effect on local company revenues and public utility commission policies.

Sprint's Chapter 30 petition permits the company's basic residential rates to increase each year for three years by $1.00 per line per month in order to reduce the company's effective switched access rates from $0.15 to $0.12 per minute. The customers of the five Frontier companies have seen local rates increase from 64 to 87 percent (depending upon the specific local exchange) from 1998 through 2002 to provide access charge reductions. These changes are part of a settlement agreement among the five Frontier companies, the OCA, OTS and AT&T that the PUC approved in 1999.

Global Order Access and Toll Charge Reforms. All companies did not have approved Chapter 30 petitions in 1998 when the FCC initiated further interstate access charge reforms. The companies and the PUC, however, recognized the need to address the problem of access and toll subsidies in local rates because of the vulnerability of such subsidies to competition. For small rural companies, access charges represented from 25 to 40 percent of a company's intrastate revenues, according to experts for the Rural Telephone Company Coalition. The PUC, therefore, in its 1999 Global Order proceedings,[27] ordered certain toll and access charge reforms that in part rely on company Chapter 30 petitions.

The Global Order directed companies that previously had not done so to: reduce toll rates (to an average of $0.09 per minute), reduce traffic sensitive access rates to interstate levels, restructure their access common carrier line charges to a flat rate and reduce it to $7.00 per line per month, and provide credits to residential customers whose monthly basic local rate was greater than the "affordability" standard it adopted ($16.00 per line per month for a residential customer[28]).

To offset the revenue lost from such changes, the PUC permitted (but did not require) companies whose rates were below $10.83 to increase rates. The PUC further indicated that that it would permit restructuring to existing tariffed services on the condition that basic local exchange rates and other protected services not increase beyond its $16.00 affordability cap and to the extent such changes are just and reasonable. All of the Chapter 30 petitions approved subsequent to the 1999 Global Order, therefore, reference this provision.

Pennsylvania's Universal Service Fund. To prevent local rate shock resulting from these reforms, all incumbent companies, other than Bell and GTE, were allowed to withdraw net revenue lost[29] as a result of the changes from a

[27]The Global Order proceedings were a major undertaking to address a series of issues that had arisen following the enactment of TA-96 and Chapter 30.
[28]Equivalent standards were also developed for business customers.
[29]Some of the ordered changes could result in increased revenues and others decreased revenues for individual companies.

temporary Intrastate Universal Service Fund/Carrier Charge Pool established in the Global Order. Financial support for the fund comes from assessments on all telecommunication providers in the state, except for wireless carriers.[30] The PUC ordered that the fund function until December 31, 2003, unless modified or extended as a result of the access reform investigation.[31]

The fund will have distributed over $100 million in subsidies from April 2000 through December 2003. On an annual basis, 76 percent of the fund's disbursements go to offset the reduced revenues resulting from companies restructuring and decreasing their carrier common line charge, 20 percent to offset the reduction in traffic sensitive access rates to interstate levels, 3 percent to offset reduced toll revenues, and 1 percent to subsidize the credits for residential and small business customers whose basic rates are above the monthly affordability cap.

Most companies receive limited per line per month subsidy from the fund. Among the companies that receive the least per line subsidy are those that were early Chapter 30 petition submitters and utilized Chapter 30's restructuring and rebalancing processes to slowly transition access, toll, and local rates closer to costs. Ironton receives almost no subsidy per line, Kecksburg receives $0.01 per line per month, TDS Telcom companies $0.05 per line per month, and the five Frontier companies receive $0.06 per line per month. In 2003, moreover, one small company (Denver & Ephrata) will pay into the fund slightly more than it will draw down. Those that will be most affected should the fund expire are ALLTEL and United/Sprint, which receive monthly subsidies between $2.50 and $3.50 per line per month.

Unlike the smaller companies, the PUC did not authorize Bell to rebalance its rates to offset access reductions. In the Global Order, however, it directed the company to finance ordered reductions and to partially support the interim state universal service fund with revenues available under the company's price cap formula to reduce prices for noncompetitive services. As a result, 90 percent of the total revenues available to the company from 1995 through 2002 under its price cap formula to reduce prices have gone to reducing access rates.

The PUC has initiated proceedings to consider additional reforms. Reform of local rate structures to eliminate the effect of residual pricing in a revenue neutral and competitively neutral way is the issue most likely to affect Pennsylvania consumers, and an area where the PUC continues to have jurisdiction.

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[30]The PUC does not regulate wireless providers.

[31]The access charge investigation provided for in the Global Order has not been completed. It was delayed in anticipation of additional reforms at the federal level.

- ***Chapter 30 recognized the need for continued consumer protections when services are provided on a competitive basis.*** (See pp. 149 to 157.) Chapter 30 did not reduce the authority of the PUC to protect consumers. With the opening of telecommunication markets, additional consumer protections are required. The PUC's Bureau of Consumer Services recognized this based on increasing numbers of consumer complaints. In April 2002, the PUC issued final orders with guidelines addressing service quality, customer information, procedures for changing local service providers, and local service provider abandonment. In June 2002, the PUC convened rulemaking collaboratives to address the promulgation of regulations relative to its guidelines and to address issues that were not covered in the interim guidelines. Such issues include, for example, who provides notice of service abandonment to consumers if the consumer's local service provider fails to do this (possibilities include the PUC, OCA, underlying carrier, or other entity), the amount of security deposit that should be allowed, and to whom it should apply. Matters concerning the development of such regulations are currently before the Commission.

- ***Chapter 30 was enacted prior to the Telecommunications Act of 1996 that has significantly pre-empted state regulation of telecommunications.*** (See pp. 158 to 164.) Prior to TA-96, Congress generally maintained the right of the states to regulate intrastate telephone service and the rates for basic cable service while the FCC had jurisdiction over interstate telephone and cable programming service rates. Certain FCC orders began to blur the line, and TA-96 has clearly altered the traditional distinction between state and federal jurisdiction.

  TA-96 is the first major overhaul of federal telecommunications law since 1934. It is intended to promote competition, lower entry barriers and reduce consumer costs. In broad terms, the act provides for three methods of competition: facility-based, leasing elements of the incumbents' network, and resale of incumbent service by competitors. TA-96 also generally deregulated cable rate regulation. The act alters traditional interstate-intrastate regulatory jurisdiction by preempting states, to various degrees, in three particular areas: entry regulations, interconnection agreements, and universal service provisions. Preemption is a doctrine that allows a federal law to take precedence over or displace a state law in certain matters of national importance.

  TA-96 Interconnection Agreements. TA-96 imposes a general duty on all carriers to allow interconnection of their facilities and equipment. In general, incumbent local exchange carriers have additional duties including, among others, (1) to negotiate interconnection agreements, (2) to provide interconnection to their networks at any technically feasible point on rates, terms, and conditions that are just, reasonable and nondiscriminatory, (3) physical

or virtual collocation of equipment on rates, terms, and conditions that are just, reasonable, and nondiscriminatory, (4) unbundled access to network elements under certain conditions, and (5) nondiscriminatory resale of their retail services.

Any interconnection agreement, whether reached through voluntary negotiation or arbitration, must be submitted to the state commission for approval or rejection. A state commission may only reject a voluntary negotiated agreement if it discriminates against other carriers not parties to the agreement, or is otherwise contrary to the public interest. State commission arbitrated agreements must comply with criteria set forth in the federal act. The state commission may not modify voluntary negotiated agreements or, in the case of both voluntary negotiated and arbitrated agreements, impose additional state requirements that would create barriers to entry to those seeking to provide intra- or interstate telecommunications service.[32]

TA-96 and State Commissions. State commissions are not required to become involved in approving or rejecting interconnection agreements or establish wholesale prices for telecommunications services. If a state commission fails to act, TA-96 directs the FCC to assume responsibility and act in place of the state commission. If, however, the state commission becomes involved, its decisions regarding interconnection agreements are appealable to federal district court. Federal courts have the sole authority to determine whether the state commission has adhered to the FCC policies and regulations and whether the FCC is correctly interpreting the federal act and its policies and regulations. No state court has jurisdiction to review the actions of a state commission in approving or rejecting an interconnection agreement.[33]

Sovereign Immunity Relinquished. Several federal courts have ruled that state officers relinquish sovereign immunity when carrying out activities under TA-96. In a case involving the Pennsylvania PUC, a telecommunications provider brought suit in federal district court naming as defendants the incumbent provider, the PUC and individual PUC commissioners challenging several terms of the approved agreement. The PUC and the PUC commissioners sought dismissal on grounds of 11th Amendment Immunity. The 11th Amendment makes states generally immune from suit by private parties in federal court unless abrogated by Congress, waived by the states, or in suits against state officers for prospective relief to end an ongoing violation of federal law. The federal court rejected the PUC, individual PUC commissioners' (and in a companion case two state senators') immunity claim finding that under TA-96 the authority of the state to regulate local telecommunications

[32]The state may impose additional state requirements such as compliance with state quality of service requirements.

[33]The PUC is challenging this prohibition of state court review in state and federal court.

is a gratuity to which Congress may attach conditions including waiver of immunity. The United States Supreme Court refused Pennsylvania's petition for it to review the lower court's decision on October 7, 2002.[34]

Continually Changing FCC Rules. The role of the PUC in implementing TA-96 is further complicated because it must apply FCC policies and regulations, which are continually changing as a result of the federal statute's requirement that the FCC update policies to take into account industry changes and in response to federal court decisions. While the federal courts have upheld the authority of the FCC to implement key provisions of TA-96, they have not always upheld the manner in which the FCC attempted to implement the act. For example, the federal courts have twice struck down the rules for unbundled network elements finding that the FCC had not given sufficient significance to the statute's impairment standard that must be met. The court vacated all the unbundling rules effective February 20, 2003. In March 2003, the United States Supreme Court denied a petition requesting that it review the federal appeals court's decision.

In February 2003, the FCC announced that it would be adopting new rules for incumbents to make elements of their network available on an unbundled basis to new entrants. According to the FCC's announcement, in the parts of the new rules addressing broadband issues:

> The Commission provides substantial unbundling relief for loops utilizing fiber facilities: 1) the Commission requires no unbundling of fiber-to-the-home loops; 2) the Commission elects not to unbundle bandwidth for the provision of broadband services for loops where incumbent LECs deploy fiber further into the neighborhood but short of the customer's home (hybrid loops), although requesting carriers that provide broadband services today over high capacity facilities will continue to get that same access even after this relief is granted, and 3) the Commission will no longer require that line-sharing be available as an unbundled element. The Commission also provides clarification on its UNE pricing rules that will send appropriate economic signals to carriers.[35]

The FCC's rules are expected to be issued in summer 2003.

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[34]The PUC is currently involved in federal court in cases involving interconnection agreements and UNE (unbundled network element) rates it established in 1997 and 1999. Such cases were pending with the Eastern District Court as of June 2003.

[35]FCC Press Release February 20, 2003.

- ***Chapter 30 petitions and network modernization plans are established in PUC orders that would continue even if Chapter 30 were to expire.*** (See pp. 113 to 115.) LB&FC staff have reviewed all Chapter 30 approved petitions and plans. None of the documents we reviewed include sunset dates. Most include explicit provisions for their continuation and provisions for revising them should Chapter 30 expire on December 31, 2003. In view of the PUC's broad statutory authority to enforce and modify its existing orders, we, therefore, understand that the PUC orders and the approved petitions and plans remain in effect until such time as the Commission modifies its existing orders. Similarly, the PUC's interexchange regulations would remain in place unless otherwise revised through the Commonwealth's regulatory review process, or preempted by federal statute as interpreted by the FCC and the federal courts.

Recommendation

We concluded that Chapter 30 has been helpful in Pennsylvania's transition to a competitive telecommunications market and that the local exchange carriers with Chapter 30 petitions and plans in place for several years, which include all large and most mid-sized carriers, are on or ahead of schedule in implementing their Chapter 30 network modernization plans.

We also found that the passage of TA-96 has significantly changed the legal and regulatory environment by effectively pre-empting state authority over significant matters pertaining to regulation of telecommunications and broadband services. The federal courts have gone so far as to rule that state-appointed and elected officials relinquish their immunity to suit in federal court when acting under provisions of TA-96. In view of this environment, we think any attempt to rewrite Chapter 30 would be problematic.

As described below, we recommend that the General Assembly consider either allowing Chapter 30 to expire on December 31, 2003, as currently provided for in the statute, or alternatively, allow Chapter 30 to continue in its current form by simply removing the sunset provision.

- **Allow Chapter 30 to Sunset**. We could identify no significant impact that would necessarily occur should Chapter 30 sunset on December 31, 2003. If Chapter 30 sunsets, the PUC-approved petitions for alternative regulations and the network modernization plans would remain in effect. None of the plans we reviewed include sunset dates, and most include explicit provisions that they would continue in effect should Chapter 30 sunset. The PUC, moreover, would have the authority to modify the petitions and plans should that become necessary, and it could provide for other reasonable forms of regulatory relief under its general statutory authority.

While some may argue that the PUC would have to revert to rate base/rate of return regulation if Chapter 30 sunsets, the PUC has authority even without Chapter 30 to implement alternative rate regulation, and the PUC in the past recognized problems with rate base/rate of return regulation. The approved Chapter 30 petitions for most of the companies, moreover, include language that would provide the companies with depreciation credits for their accelerated deployment of a modernized network. In a rate base/rate of return proceeding, this would expose consumers to having to pay in their local phone bill for capital costs associated with advanced services they may not wish to use. We also note that all but five states have abandoned rate-of-return regulations and that certain provisions of TA-96 would make a return to a rate-of-return regulatory approach difficult.

- **Amend Chapter 30 by Removing the Sunset Provision.** The General Assembly may also wish to consider allowing Chapter 30 to continue in its present form by removing the sunset provision. Since the approved petitions and network modernization plan would continue to remain in effect, we could identify little practical difference between allowing Chapter 30 to sunset and reauthorizing it in its present form. However, an attempt to delete any portion of the existing statute could open the door to problems similar to those in attempting to rewrite the statute.

I. Introduction

The Legislative Budget and Finance Committee directed staff to assess the results of Chapter 30[1]--state legislation providing for an alternative or streamlined form of regulation for Commonwealth telecommunications providers, including long distance and local telephone carriers. Chapter 30 became effective in July 1993 and expires on December 31, 2003, unless reenacted by the Pennsylvania General Assembly.

Study Scope and Objectives

In order to assess the results of Chapter 30, especially in rural areas, the study sought to:

- Determine if and when companies filed petitions for alternative regulation and network modernization plans and whether such petitions and plans were accepted, rejected, modified, or revised by the PUC and the companies.
- Identify services "deregulated" as a result of Chapter 30.
- Identify the extent to which competitive local telephone services are available since the enactment of Chapter 30.
- Determine the extent to which Chapter 30's "protected telephone services" have remained affordable.
- Identify the status of company progress in implementing PUC-approved network modernization plans.

To determine if and when companies filed Chapter 30 alternative regulation petitions and network modernization plans and whether they have been accepted, modified, rejected, or revised by the PUC and the companies, LB&FC staff reviewed petitions and plans submitted by companies, relevant PUC orders and opinions, and related settlement agreements approved by the PUC.

To identify services "deregulated" as a result of Chapter 30, we reviewed relevant federal and state statutes, regulations, and orders, as well as PUC-approved settlement agreements and Chapter 30 petitions. We also reviewed available information from national organizations familiar with telecommunication deregulation practices in other states.

[1] 66 Pa.C.S.A. §§3001-3009.

To identify the extent to which competitive local telephone services are available following enactment of Chapter 30, we reviewed information from several sources including PUC county-based data identifying carriers that have been issued local telephone numbers for their subscribers, access line data, and information posted at the PUC-sponsored consumer utility choice website.

To determine the extent to which Chapter 30's "protected telephone services" have remained affordable we reviewed PUC-approved Chapter 30 alternative regulation petitions, company rate rebalancing and restructuring filings, tariff filings, and other relevant PUC orders and opinions.

From an evaluation standpoint, it is not possible to assess the effectiveness of Chapter 30 in achieving its network modernization goals. Chapter 30 was designed to accelerate network improvements by bringing about improvements projected for 2030 in 2015. We, however, identified the status of company progress in implementing PUC-approved network modernization plans. To accomplish this objective, we reviewed bi-annual updates companies submit to the PUC. Such updates contain information on progress in meeting "benchmarks" or "targets" in company plans that are subject to change. We also received additional information from relevant PUC proceedings and from the companies.

We were also able to determine the extent to which companies have accelerated the deployment of a broadband capable network technology compared to the deployment cycles that were in place prior to Chapter 30's enactment. PUC consultants had identified and reported information on company technology deployment cycles in an early 1990 study of the state's telecommunications infrastructure, and we utilized their typical deployment target dates for purposes of our analysis. This PUC study also provided important information on the status of Pennsylvania's telecommunication network just prior to Chapter 30's enactment. We have, therefore, used such baseline data to assess the progress that has been made in modernizing the state's network since Chapter 30's enactment.

The PUC has honored claims that some data included in certain company reports are proprietary and confidential. To the extent that such plans contain company proprietary data, we have not included such data in the report. We have, however, included data if the company has reported it publicly in other reports or if the PUC included it in its orders and opinions.

We are able to report on progress for major companies. Our ability to report on progress for all companies, however, is limited. While Chapter 30 was enacted 10 years ago, most of the companies, in particular small companies, did not have network modernization plans approved until July 2001. As a result, the required updates for such companies are not due until late 2003. The PUC, moreover,

elected not to immediately impose potentially burdensome reporting requirements on small companies that had plans approved prior to 2001.

The absence of such updates, however, should not suggest that companies have not modernized their networks. By supporting the PUC's use of alternative forms of regulation, Chapter 30's enactment in and of itself permitted companies to accelerate depreciation and replace equipment faster than would have occurred if it had continued to use rate base/rate of return methodologies to regulate company rates. Changing market conditions and telecommunications advancements, moreover, resulted in companies starting to modernize their networks in anticipation of PUC approval of their Chapter 30 network modernization plans. Several of the approved network modernization plans incorporate important company network modernization efforts that occurred prior to the PUC approving the company's plan.

From an evaluative standpoint, we confronted two additional challenges that we have explained in detail within the report. First, the ways in which "broadband availability" commitments have been operationally defined in company PUC-approved plans are not the same. With the help of companies, we have attempted to explain some of the key differences in their definitions. One result of this is that certain data we have included in the report can not and should not be used to compare company performance. Second, the PUC-approved plans do not contain consistent definitions of "rural." Moreover, 20 of the companies whose entire service territory is categorized as "rural" for purposes of Chapter 30 provide service in 23 mostly urban counties. Company telecommunication infrastructures, moreover, do not coincide with recognized geographic boundaries. We are, therefore, unable to consider company differences in provision of broadband capable services in rural areas using definitions relied on by the Center for Rural Pennsylvania or the U.S. Census Bureau.

The LB&FC staff's assessment of the results of Chapter 30 is based on the specific statutory language and formal PUC orders, approved settlement agreements, published regulations and their preambles, and approved alternative regulation petitions and network modernization plans. In such documents, the PUC has in effect interpreted the statute.

The PUC's interpretation of Chapter 30 evolved over time in ways that may not have been envisioned, and could not have been foreseen, by the General Assembly when it enacted Chapter 30 in 1993. In addition to rapid changes in telecommunication technology, Congress passed the federal Telecommunications Act of 1996[2]—commonly referred to as TA-96.

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[2] 47 U.S.C. §§251 et seq.

The PUC approved only one Chapter 30 petition and network modernization plan prior to Congress enacting TA-96. The PUC's implementation of Chapter 30 as set forth by the Pennsylvania General Assembly in 1993, therefore, was significantly complicated. Because TA-96 modified the way in which the PUC implemented Chapter 30, we have provided certain information about the federal law and policies within the report, and throughout the report noted ways in which such policies differ from prior state policies.

To the extent that the Commission set forth its reasoning when interpreting Chapter 30 and its application of the requirements of TA-96, we have attempted to set forth the PUC's reasoning. The PUC, however, is not required to outline all of the reasons for its decisions within its orders and opinions. LB&FC staff, therefore, may not have fully set forth the thinking of the Commission and its staff in all matters.

Our work was further complicated by the PUC's docketing system. The PUC provided full cooperation in providing orders, agreements, settlements, petitions, and plans. However, the PUC docketing system is such that it does not necessarily provide all related materials and does not easily allow for conducting subject matter searches or updates. The effect of this is that LB&FC staff were required to know which dockets to ask for in order to assure that all relevant materials related to our assessment were reviewed. Currently, the Executive Director of the PUC is in the process of implementing a major initiative to revise the Commission's information systems to assure that its staff and others can access all orders, agreements, and other documents essential to their work.

To assure that there were not significant "gaps" in the materials we analyzed, we consulted with PUC staff. Over 20 PUC staff were available and provided valuable assistance. Key staff involved in Chapter 30 implementation have retired, and no single person or unit within the PUC is responsible for all aspects of telecommunication policies and Chapter 30 implementation. As such, we at times had difficulty verifying that we were working with complete documentation. When we were able to independently identify "gaps" in key information, we requested and received assistance from company representatives and others who brought to our attention the relevant docket numbers to request from the PUC.

At times, some of the specific information contained within PUC orders and regulations appeared to us to be conflicting. When this occurred, we attempted to obtain clarification from PUC staff. This was not always possible to obtain, however, because of the PUC's operational structure.[3] Throughout the report we have

[3]Due to requirements of the Public Utility Code and in response to the holding in Lyness v. State Board of Medicine, 529 Pa. 535 (1992), which held that it is a violation of due process for an agency decision maker to initiate a prosecution and subsequently decide the merits of the case, the PUC restricts access and information-sharing between the organizational units providing the advisory and prosecutory functions in the agency.

attempted to identify the specific references in orders and documents we relied on and included in the report.

In the report we use the term "modified" when parts of an existing PUC order and opinion or approved petition and plan have been substantively clarified or changed by a subsequent PUC issuance. We have used the term recognizing that it is technically imprecise in terms of the PUC's formal procedures.

We also use the term "competition" throughout the report. As explained in the report, the concept of competition in telecommunications is significantly different than the layperson's intuitive understanding of the term. Similarly the term "competitive service" has a unique operational meaning that differs significantly from a layperson's intuitive understanding of the term.

The report also uses the term "telecommunications." As noted in the report, the PUC defines the term to include voice communication and does not include data transmission.

Throughout the report, we have referred to telephone operating companies using their names at the time Chapter 30 was enacted. For example, throughout the report, we refer to Bell Atlantic Pennsylvania, or "Bell," even though the company started to do business under the name Verizon—Pennsylvania in 2000. The Bell and GTE holding companies agreed to merge in July 1998. The two parent companies merged nearly two years later following review and approvals by the companies' stockholders, 27 state regulatory commissions and the Federal Communications Commission (FCC), and clearance from the US Department of Justice. We have also separately reported information for Bell Atlantic Pennsylvania and GTE North throughout the report since the two parent companies' merger has not resulted in merger of the two operating companies.

We also remind the reader that while our report focuses on the PUC's implementation of Chapter 30, the PUC is not like a traditional executive branch agency administering a publicly funded program, and Chapter 30 is not a publicly funded program created by state statute. Rather, the PUC is authorized to ensure that all utility customers have access to safe, reliable utility services at just and reasonable cost. The PUC balances the interest of consumers against those of private companies that provide utility services. The PUC and its enabling legislation recognize that such companies have a right to fair rates, and that fair rates are in the long-term public interest. As markets for utility services move away from being monopolistic to open and competitive, the PUC also recognized that it has a role in empowering consumers to take advantage of the benefits of competition.

Acknowledgements

We express our appreciation to Pennsylvania Public Utility Commission Chairman Terrance Fitzpatrick and the staff of the Commission, in particular Veronica Smith, the Executive Director of the Commission. We appreciate the cooperation we received from the Pennsylvania Office of Consumer Advocate, and the representatives of incumbent and competitive local exchange carriers with whom we spoke. In particular, we thank the Pennsylvania Telephone Association for granting us permission to reproduce and include in our report the Association's map displaying areas of the state served by its members.

Important Note

This report was developed by Legislative Budget and Finance Committee staff. The release of this report should not be construed as indicating that the Committee's members endorse all the report's findings and recommendations.

Any questions or comments regarding the contents of this report should be directed to Philip R. Durgin, Executive Director, Legislative Budget and Finance Committee, P.O. Box 8737, Harrisburg, Pennsylvania 17105-8737.

II. Findings

A. Chapter 30 Helped Promote Pennsylvania's Transition to an Open Competitive Telecommunication Market

Prior to the enactment of Chapter 30 in July 1993, the telecommunications industry had already started to transition from one in which monopolist utilities and utility regulators establish the prices consumers pay for telephone services to one in which market forces determine price. In response to such changes, regulators, including the Federal Communications Commission (FCC) and the Pennsylvania Public Utility Commission (PUC), started to adopt different approaches to how they regulated telecommunications providers.

The transition to different approaches to regulation, however, was slow. Prior to Chapter 30, for example, local telephone companies at times had to engage in lengthy and often costly rate base/rate of return proceedings in order to obtain approval from the PUC for increased rates to modernize their networks. In 1990, one small company offered to accelerate facility improvements, particularly for facilities which were not sufficient to provide private line service, if the PUC would in advance approve the rate increases necessary to recover the associated capital improvements. The company proposed this approach because of the high costs associated with the PUC's rate base/rate of return procedures that ultimately are passed through to customers. (In the 1990 rate case, for example, the company sought an increase of $130,786 in annual intrastate operating revenues and the PUC authorized recovery of $165,000 for rate case expenses.[1]) The PUC rejected the company's proposal but agreed with the company that its rate base/rate of return procedures imposed substantial costs and concurred that there should be some alternative.[2]

The PUC's enabling legislation requires that the Commission determine if rates are "just and reasonable," and historically, it has relied on the use of rate base/rate of return methods to make such determinations for telecommunication services.[3] It was not until Chapter 30 was enacted, however, that the PUC moved away from rate base/rate of return methodologies.

By the time Chapter 30 was enacted in Pennsylvania, at least 30 states (including California, Florida, Illinois, Maryland, Michigan, New Jersey, New York,

[1]This same company estimated the cost to its customers for Pennsylvania rate cases. Based on seven rate cases for all of its companies from 1988 through 1992, the company reported that 8.5 percent of the companies' residential charges are associated with the recovery of rate case expenses.

[2]This discussion is based on information provided in the Frontier Companies' *Joint Petition for a Streamlined Form of Regulation and Plan for Network Modernization*, January 3, 1994, PUC Docket No. P-00940754.

[3]In 1995, in litigation related to a Chapter 30 proceeding, the Commonwealth Court determined that the use of other methods to determine rates was within the discretion of the Commission. See Appendix A for a summary of the case and its key provisions.

Texas, and West Virginia) had moved away from rate base/rate of return regulation to alternative forms of regulation to establish the prices consumers pay for services. Appendix B provides a complete list of states and the year in which they moved away from rate base/rate of return regulations to alternative forms of regulation.[4]

Chapter 30's Open Competitive Market Transitioning Provisions

Chapter 30 did much more than prompt the PUC to move away from its reliance on rate base/rate of return methods to determine if telecommunication rates are just and reasonable. It prompted the transition from a regulated monopolistic telecommunications market to an open competitive market. Chapter 30 did this by providing for:

- *Competitive service provision* (i.e., it classifies certain long distance, toll, and local services as "competitive," establishes in statute competitive standards for certain "Chapter 30 competitive services," and permits the PUC to authorize more than one local exchange telecommunication company to serve a given area.)
- *Elimination of implicit subsidies that historically helped to keep local rates low* (i.e., it required reduction in access charges that traditionally had subsidized local rates and authorized "deaveraging" of toll service rates.)
- *Non-precipitous increases in local basic service rates as a result of the steps authorized to eliminate subsidies from local rates* (i.e., it provided for phased-in customer rate increases resulting from rate restructuring and rebalancing, and ensured the continued affordability of protected telephone services.)
- *Alternative rate setting processes* (i.e., it prompted the PUC's use of alternative ways to establish rates that did not require local rate hearings and proceedings whenever a company modified or upgraded its network and that did not pass along the cost of such upgrades to consumers as a result of accelerated depreciation.)
- *Accelerated telecommunication infrastructure modernization* (i.e., it allowed companies to 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 alternative forms of regulation.)
- *Continued monitoring and oversight by the PUC* (i.e., it required the PUC to review all new services or changes to existing services prior to their being offered to assure safety, adequacy, reliability, and privacy of

[4]As of early 2002, only five states—Alaska, Arizona, Hawaii, Montana, and New Hampshire—established retail prices for basic telephone services for the largest carriers using rate base/rate of return regulation, according to the National Association of Regulatory Commissioners.

telecommunications services and continued the PUC's authority to regulate ordering, installation, suspension, termination and restoration of service).

To begin to understand the role Chapter 30 played in promoting the transition to open competitive telecommunication markets, it helps to understand certain federal open competitive market policies.

Federal Policies Promoting Open Competitive Markets

Prior to the enactment of Chapter 30, federal telecommunication policies to promote open competitive markets were introduced. Underlying such policies are the principles that in order for open competitive markets to evolve:

- The price paid for a service should be related to its cost.
- The way in which charges are imposed should be related to the way in which they are incurred.

Implementation of such policies, however, has presented a major challenge to federal and state regulators attempting to transition telecommunications services to competitive markets--a challenge not present when moving toward competition in other regulated utilities, such as the deregulation of electric generation.

The challenge arises because local telephone services traditionally have included subsidies that are not apparent to ordinary consumers. Basic local telephone services historically have been subsidized by company revenues from federal (interstate) and state (intrastate) toll services and payments interexchange and local exchange carriers make to one another to initiate and complete toll calls (referred to as "access charges"). As a result, message toll services and access services have historically been priced well above their costs. Local rates have also been subsidized by other business activities of telecommunications providers that are not under the jurisdiction of state public utility commissions, such as "yellow page" advertising. Moreover, cross subsidization has historically occurred when rates for more densely populated company exchanges have been established to help keep rates down in less densely populated areas, and when business rates have subsidized residential rates. Utility regulators in a monopoly environment authorized such imbedded subsidies so that telephone services could be universally available.

The need to eliminate the effects of such historic policies in order to provide for open competitive telecommunication markets in part accounts for Chapter 30's provisions concerning access charges, deaveraging, revenue-neutral rate rebalancing, and "Chapter 30 competitive service" designation. Such provisions are discussed in the more detailed findings below.

Federal Telecommunications Act of 1996 Further Promoted Open Competitive Markets, But in Some Ways That Conflict With Chapter 30

The PUC acted quickly to establish procedures to implement Chapter 30. The PUC, however, is a quasi-judicial agency, and implementation could not occur as it would if an executive administrative agency were implementing a state-sponsored and funded program. As a result, the PUC had not fully approved any company's Chapter 30 petition and network modernization plan by July 8, 1995, when the PUC submitted to the General Assembly the report required by Chapter 30 two years after the effective date of the chapter.

The PUC gave its approval to Bell Atlantic's network modernization plan shortly after July 8, 1995. However, it did not approve most company alternative regulation petitions and network modernization plans prior to Congress enacting the Federal Telecommunications Act of 1996 (commonly referred to as TA-96).[5]

TA-96 significantly complicated the PUC's implementation of Chapter 30 because parts of Chapter 30 effectively conflict with it. As a result, the PUC modified the way it interpreted parts of the state statute and the way it implemented the transition to open competitive telecommunications markets in Pennsylvania. Specific instances when this occurred are discussed in detailed findings below.

Based on our review of various federal policies and federal court decisions, it is clear that federal telecommunication policies have preempted state policies in significant ways—including state policies concerning in-state service. The federal courts have held the Federal Communications Commission (FCC) is charged with setting forth policies to implement TA-96, and that states electing to participate in assisting with the implementation of the federal rules are accountable to the federal courts. Federal appeals courts, moreover, have issued decisions indicating that states relinquish their sovereign immunity when they engage in key activities under TA-96. In one such case involving the Pennsylvania PUC, the United States Supreme Court in October 2002 declined the Commission's request to hear its appeal of a decision by the Third Circuit Court of Appeals.[6]

The federal courts are responsible for determining whether the policies that are established and being implemented (either by the FCC or states) are in conformity with the federal statutes, and relevant state statutes and rules must conform with federal courts' understanding of TA-96. Thus far, major policies set forth by the FCC have not passed federal court review. This has presented problems for state commissions, including the PUC, which have implemented federal

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[5]47 U.S.C. §251 et seq.

[6]Bell Atlantic-Pennsylvania, Inc., v. The Pennsylvania Public Utility Commission, 273 F.3d 337 (3rd Cir. 2001) involved state senators Vincent J. Fumo, Roger A. Madigan and Mary Jo White who intervened in an underlying suit brought by Bell Atlantic challenging the Global Order. The United States Supreme Court denied certiorari at 123 S.Ct. 340 (U.S. 2002).

policies only to have them significantly modified by the federal courts and/or the FCC.

In its efforts to begin to implement multiple provisions of TA-96, the PUC chose to engage in a global proceeding and issued what is commonly referred to as "the Global Order"[7] in 1999. In the Global Order, the PUC opted to commingle implementation of TA-96 provisions, which primarily involves wholesale services, with the implementation of Chapter 30, which primarily is concerned with retail service available to ordinary consumers. As a result, many of the PUC-approved alternative regulation petitions and network modernization plans contain references to TA-96 and the Global Order and provide for activities that were not specifically addressed in Chapter 30. Another result of such commingling has been that implementation of Chapter 30 requirements, and its accomplishments, have at times been confused with issues related to implementation of constantly changing federal policies.

In the detailed findings below, we have provided information about the status of "telephone service" in Pennsylvania today. We have also described what Chapter 30 required, how it has been implemented by the PUC, and the extent to which, if any, Chapter 30 provisions have not been implemented as a result of conflicting federal policies. Such detailed findings have been grouped based on the major areas set forth in Chapter 30, including:

- Interexchange carrier services.
- PUC processes implementing Chapter 30.
- Local Exchange Carriers' network modernization plans.
- Local Exchange Carriers' alternative regulation petitions.
- Access rate reductions.
- Consumer protections.

As noted above, Chapter 30 is primarily focused on retail services for ordinary consumers, and not wholesale services provided for under TA-96. We, therefore, have not attempted to assess the implementation of TA-96 in Pennsylvania. We have, however, provided some information about TA-96, and the challenges it has presented for the Commission.

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[7] *Joint Petition of Nextlink et al., Docket No. P-00991648; Joint Petition of Bell Atlantic, et al., Docket No. P-00991649*; order entered September 30, 1999. Referred to as the Global Order.

B. Telephone Service Has Changed Significantly Since Chapter 30 Was Enacted

What most consumers think of as "telephone service" has changed significantly since Chapter 30 was enacted in 1993. At that time, the PUC authorized only one company to provide local telephone service within a given area. Telephone networks in major urban areas relied on analog rather than digital technology, and multiparty telephone lines were still prevalent in some areas. It was not until April 1995 that the PUC specifically defined basic universal service to include:

> (1) Single party, voice grade, incoming and outgoing access to the public switched network and usage within a local calling area; (2) touch tone capability; (3) annual local directory; (4) access to operator services; (5) access to directory assistance; (6) access to telecommunications relay service and other services designed for persons with disabilities; and (7) access to emergency services.[1]

Currently, consumers can choose different telecommunication companies to provide their local, local toll, and long-distance services.

- *Basic Local Service* includes dial tone, touch-tone, federal line cost charge, Pennsylvania relay charge, federal universal service fund surcharge, local number portability surcharge, 911 emergency service fee and a local calling plan to make and receive telephone calls within the local calling area.[2]
- *Local Toll Service* (regional toll) includes calling plans for telephone calls that consumers make within their region, but outside of their local calling area. Pennsylvania has six regions—the Altoona, Capital, Erie, Northeast, Philadelphia, and Pittsburgh regions.
- *Long-Distance Service* includes in-state calls outside of a consumer's local calling region and state-to-state calls.

Local Exchange Companies in Pennsylvania

When Chapter 30 was enacted, Pennsylvania had 38 local exchange companies, and most continue in operation today. As shown in Exhibit 1, the

[1]*Formal Investigation to Examine and Establish Updated Universal Service Principles and Policies of Telecommunications Services in the Commonwealth; Declaratory Order, Advance Notice of Proposed Rulemaking, Scheduling of Public Forum, Docket Nos. I-00940035 and L-00950102;* Order entered April 10, 1995.

[2]The charge for many of these service elements appears on the bills customers receive from their local exchange carrier. Such "charges," however, are surcharges outside of the control of the consumer's local exchange carrier and the PUC.

Exhibit 1

Pennsylvania Local Exchange Carriers

(As of 12/31/94)

ALLTEL*
Armstrong-North*
Armstrong – PA*
Bell (Verizon PA)
Bentley*
Buffalo Valley*
Citizens Kecksburg*
Citizens NY*
Citizens PA[a]
Commonwealth*
Conestoga*
Denver & Ephrata*
Deposit*
Frontier-Breezewood*
Frontier-Canton*
Frontier-Lakewood*
Frontier-Oswayo River*
Frontier-PA*
GTE North (Verizon-North)
Hancock*
Hickory*
Ironton*
Lackawaxen*
Laurel Highland*
Marianna & Scenery Hill*
North Eastern PA*
North Penn*
North Pittsburgh*
Palmerton*
Pennsylvania*
Pymatuning*
South Canaan*
TDS - Mahanoy & Mahantango (M&M)*
TDS - Sugar Valley*
United/Sprint
Venus*
West Side*
Yukon Waltz*

*Pennsylvania PUC certified rural local exchange carriers in 2002. Such carriers are eligible for certain federal subsidy due to the above average costs they incurred because of their low population density.

[a]Not a separate operating company in 2002.

Source: PA PUC Access Line data.

Pennsylvania PUC has certified most of the incumbent carriers as rural carriers, which makes them eligible for certain federal subsidies because of the higher costs they incur as a result of their lower population density. Bell Atlantic-Pennsylvania (Verizon-PA), GTE (Verizon-North) and United/Sprint were not certified as rural carriers in 2002.

In October 1995, the PUC approved the applications of MFS Intelenet of Pennsylvania, TCG Pittsburgh, MCI Metro Access Transmission Services, Inc., and Eastern Telelogic Corporation to provide local exchange services in Pennsylvania.[3] These were the first competitive local exchange carriers (CLECs) authorized to operate in Pennsylvania.

As shown in Table 1, at the end of 1994, Pennsylvania's 38 incumbent local exchange companies (ILECs) had 7.1 million access lines.[4] By December 31, 2001, the total number of lines in the state had increased to 9.4 million. Companies other than those operating at the end of 1994 (i.e., CLECs) accounted for 1.2 million (12.6 percent) of the total lines in 2001.

Table 1

Summary of PA Access Line Counts

	12/31/94 Total	12/31/99 Total	12/31/01 Total
Total Incumbent LECs	7,134,133	8,295,531	8,241,321
Total ILECs & Competitive LECs....	7,134,133	8,774,543	9,421,190

Source: PA PUC Access Line data.

In both 1994 and 2001, Bell accounted for the largest share of Pennsylvania's access lines, followed by GTE North, United/Sprint, Commonwealth, and ALLTEL. Bell's rate of growth in access lines has been below the rate of growth for all of the incumbent companies from 1994 through 2001. Since 1999, moreover, the company has experienced an actual decline in its total number of access lines.

Competitive local exchange carriers (CLECs) increasingly account for a larger share of Pennsylvania's access lines. At the end of 1999, such companies accounted for 5 percent of total Pennsylvania access lines. By the end of 2001, they accounted for almost 13 percent.[5]

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[3]*Application of MFS Intelenet of Pennsylvania, TCG Pittsburgh, MCI Metro Access Transmission Services, Inc., and Eastern Telelogic, Docket No. A-310203F0002*; Order entered October 4, 1995.

[4]We are unable to provide specific access line counts by company as the PUC receives and designates such data as proprietary and confidential.

[5]According to the FCC as of June 2002, competitive carriers accounted for 11.4 percent of the nation's switched access lines.

The five largest competitive local exchange companies in Pennsylvania include MCI Worldcom Communications, AT&T Communications, PECO Adelphia, Adelphia Business Solutions of Pennsylvania, and XO Pennsylvania. Each of these companies had more access lines at the end of 2001 than the majority of local exchange carriers.

Almost half (18 of 39) of the competitive companies reporting access lines to the PUC for 2001 reported serving only business customers. At the end of 2001, 68 percent of the incumbent companies' access lines were residential lines, while 37 percent of the CLECs' lines were.

Competitive Telecommunication Markets

As shown in Table 2, all Pennsylvania counties except Wyoming currently have multiple wireline telephone carriers that have been assigned local telephone numbers to issue to customers. We should caution the reader that the local exchange carriers operating in each county do not always serve the entire county. This is true for both incumbent (whose original franchise may have been limited to portions of the county) and competitive carriers. Only the incumbent local exchange carriers in Pennsylvania, moreover, are required to offer residential service packages. Competitive local exchange carriers that market their services to businesses, however, must be willing to provide the same business service package to residential customers who request them.

When the PUC initially authorized competitive local exchange carriers under Chapter 30 in 1995, it ordered that they ". . . serve all responsible customers, under non-discriminatory terms and conditions, where it is reasonably able to obtain the requisite facilities."[6] As a result of vigorous prosecution by the Commission's Office of Trial Staff, MFS, which had planned to serve only small and mid-size business customers, agreed to extend service to include residential customers. As discussed in Finding P, the federal TA-96 subsequently prohibited the PUC from imposing and enforcing such requirements.

TA-96 does not require that CLECs serve all customers in territories where they operate. As a result, "competition" in telecommunications does not mean that all customers have more than one wireline carrier to choose from to receive local phone service. Rather "competition" in telecommunications means that competitors are not prevented from being authorized to provide service and connecting to the incumbent's network when this is required to provide local service. Because of this, the number of customers who actually have a choice of wireline local service providers is not the basis for determinations as to whether telecommunications competition exists, and such information is not collected.

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[6] *Application of MFS Intelenet of Pennsylvania et al*, p. 92.

Table 2

Unduplicated Number of Carriers, by County

County	Total Carriers	# of Non-LEC Carriers Included In Total[a]	County	Total Carriers	# of Non-LEC Carriers Included In Total[a]
Adams	8	3	Lackawanna	19	7
Allegheny	41	18	Lancaster	24	10
Armstrong	8	1	Lawrence	19	6
Beaver	22	7	Lebanon	14	6
Bedford	8	3	Lehigh	40	13
Berks	40	11	Luzerne	18	8
Blair	18	7	Lycoming	19	7
Bradford	6	0	McKean	9	4
Bucks	42	9	Mercer	20	7
Butler	16	7	Mifflin	10	4
Cambria	20	8	Monroe	14	5
Cameron	3	0	Montgomery	45	14
Carbon	7	0	Montour	6	1
Centre	18	8	Northampton	22	4
Chester	40	9	Northumberland	15	6
Clarion	10	3	Perry	6	0
Clearfield	11	5	Philadelphia	34	16
Clinton	11	5	Pike	6	0
Columbia	14	6	Potter	6	0
Crawford	11	5	Schuylkill	16	7
Cumberland	15	4	Snyder	3	0
Dauphin	30	14	Somerset	7	4
Delaware	41	13	Sullivan	2	0
Elk	6	3	Susquehanna	3	0
Erie	13	6	Tioga	8	1
Fayette	19	9	Union	8	3
Forest	3	0	Venango	14	4
Franklin	9	6	Warren	12	4
Fulton	3	0	Washington	35	9
Greene	4	1	Wayne	11	3
Huntingdon	9	3	Westmoreland	27	8
Indiana	19	7	Wyoming	1	0
Jefferson	11	5	York	20	6
Juniata	3	0			

[a]These carriers include wireless, paging, and mobile carriers.

Source: PUC website July 11, 2002.

In 1984, Bell was prohibited from providing long distance services.[7] TA-96 set forth conditions that Regional Bell Operating Companies must meet before they are permitted to offer long distance service. In September 2001, the Federal Communications Commission determined that Bell had met the federal statutory conditions and that open competitive markets existed throughout its service territory.[8]

Table 2 also shows that many carriers that have been issued telephone numbers are wireless, mobile, and paging carriers. The PUC, however, does not regulate such carriers. In 1984, the Pennsylvania General Assembly amended the Public Utility Code to specifically exempt mobile domestic radio telecommunications service from the definition of public utility.[9]

In recent years, alternative technologies to traditional wireline telephones have been readily available to many consumers. For example, as of June 2002, wireless carriers operating in Pennsylvania had received over 5 million telephone numbers to issue to their wireless telephone customers, according to the PUC.

Increasingly, a variety of new technologies are being used as a substitute for traditional wireline telephones, including wireless telephones and Internet telephony services through broadband connections. More changes are on the way as telecommunications technologies continue to evolve at a pace not envisioned in 1993 when Chapter 30 was enacted.

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[7]In 1982, the Modified Final Judgment in the United States v. American Telephone and Telegraph Co. provided for AT&T's divestiture, including the separation of the local exchange operations of the Bell operating companies from the rest of AT&T's operations, including AT&T's long distance business.
[8]FCC Docket No. 01-138; September 19, 2001.
[9]Act 1984-241.

C. Chapter 30 Immediately Classified Most Interexchange Carrier Services as Competitive and Limited Their Regulation

As early as the mid-1980s as a result of the development of competitive markets for long distance service, the PUC adopted streamlined forms of regulation and flexible pricing for intrastate services of interexhange carriers (IXCs). The Commission's streamlined form of regulation and flexible pricing also applied to similar services provided by local exchange carriers (LECs).[1]

The adoption of such streamlined form of regulation and flexible pricing, however, did not alleviate the requirement that IXCs continue filing with the Commission tariffs, tariff supplements, or tariff revisions that contained rates, rate provisions, and rules and regulations governing the offering of their interexchange services within the Commonwealth. Until the enactment of Chapter 30, such tariffs were subject to a 30-day review period and generally had to be acted upon in some fashion by the Commission prior to becoming effective.[2]

IXC Services Deemed Competitive

Chapter 30 deemed most, but not all, IXC services as competitive. Chapter 30 provided that:

> Telecommunication services provided by interexchange carriers shall be deemed to be competitive services after January 1, 1994. . . . The commission shall not fix or prescribe the rates, tolls, charges, rate structures, rate base, rate of return, operating margin or earnings for interexchange competitive services, or otherwise regulate interexchange competitive services, except as set forth in this chapter.[3]

Chapter 30 defines an interexchange carrier (IXC) as "a carrier other than a local exchange telecommunications company [LEC] authorized by the commission to provide long-distance telecommunications services."[4]

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[1]See *Development of Intrastate Access Charges, Docket No. P-830452 et. al.*; Order entered on August 9, 1985 (Order on Reconsideration entered on March 12, 1987).
[2]*Interexchange Carrier Regulations Under Chapter 30 of the Public Utility Code, Docket No. M-00930496*; Order entered December 28, 1993.
[3]66 Pa.C.S.A. §3008(a), (b).
[4]66 Pa.C.S.A. §3002.

PUC's Authority Over Interexchange Carriers

Chapter 30 significantly limited the authority of the PUC to regulate the rates, rate structures, and earnings of interexchange carriers, but it did not totally remove intrastate interexchange services (including IXC services that Chapter 30 deemed competitive) from the PUC's oversight. Chapter 30 provided that:

- The PUC could require interexchange carriers to file and maintain tariffs or price lists for their competitive services.
- The PUC continue to regulate both competitive and noncompetitive interexchange services in matters such as:
  - Privacy of service,
  - Ordering, installation, restoration and disconnection of service to customers, and
  - Service quality complaints.[5]
- Two types of services offered by interexchange carriers (i.e., interexchange services to aggregator telephones[6] and optional calling plans required by the commission to be offered when justified by usage over an interexchange route) would remain noncompetitive services unless determined otherwise by the Commission.
- The PUC could reclassify telecommunications services provided by interexchange telecommunication carriers from competitive to noncompetitive if, after notice and hearing, the commission determines "upon application of the criteria set forth in this chapter, that sufficient competition no longer is present."[7]

IXC Chapter 30 Competitive Service Tariff Filing Requirements. Current PUC regulations for Chapter 30 competitive services provided by interexchange telecommunications carriers require that they:

- File informational tariffs with the PUC for existing services that become effective on 1 days' notice. Supplements or modifications to such tariffs do

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[5]66 Pa.C.S.A. §3008(b), (d).

[6]Chapter 30 defines "aggregator telephone" as "a telephone which is made available to the transient public, customers, or patrons, including, but not limited to, coin telephones, credit card telephones and telephones located in hotels, motels, hospitals and universities," 66 Pa.C.S.A. §3002. Current PUC regulations define these services as "services offered to consumers using telephones, including coin telephones, credit card telephones and telephones located in hotels, motels, hospitals and universities, which are made available to the transient public, customers or patrons. The term includes live and automated operator services and other services which are provided to customers placing calls from aggregator telephones, but excludes prepaid debit calling card services." 52 Pa. Code §63.102.

[7]66 Pa.C.S.A. §3008(c).

not require supporting data and cost justification, and they do not require PUC approval.[8]

- File informational tariffs describing new service offerings that become effective on 16-days' notice. PUC staff review of such filings is restricted to the residual authority of the PUC to determine whether the proposed service is a competitive service and is safe, adequate, reliable and consistent with privacy concerns.[9]

IXC Chapter 30 Noncompetitive Service Tariff Filing Requirements. Current PUC regulations provide the following:[10]

- Modifications to existing tariffs requesting rate decreases become effective at the end of a 16-day notice period without any further review or approval by the PUC.
- Modifications to the terms or conditions of an existing noncompetitive service that do not involve any rate change become effective at the end of a 16 day notice period without any further review or approval by the PUC.
- Modifications to existing tariffs that involve rate increases require supporting data justifying the proposed rates. Cost justification, cost of service revenue data, however, are not always required as part of the supporting data to justify the increase. Cost justification, cost-of-service or revenue data related to the proposed rate increases, are also not required if the proposed rate increase is designed to:
  - Make rates, terms and conditions conform to comparable rates or conditions for the same service that have become lawfully effective for interstate services.
  - Make rates, terms or conditions that have become lawfully effective in several other states.

Annual Reporting. PUC regulations require interexchange carriers to file an annual report for the preceding calendar year under proprietary seal. The report must contain aggregate total revenue and traffic volume data measured in minutes of use for the carrier's intrastate operations. If available, the data should be separated in the following categories of service provided by IXCs:

- Message toll service.
- Outbound Wide Area Telecommunications Services (WATS).
- Inbound Wide Area Telecommunications Services or "800" type services.

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[8] 52 Pa. Code §63.103(b).
[9] 52 Pa. Code §63.104.
[10] 52 Pa. Code §63.105.

- Private line or dedicated communication path services.
- Dedicated network type services, including virtual network type services.[11]

A copy of the annual report filed with the FCC must also be provided to the PUC. The PUC considers such reports public documents unless deemed to be proprietary in whole or in part by the FCC.

PUC Designation of Chapter 30 IXC Noncompetitive Services as Competitive. Chapter 30's procedures for determining if noncompetitive services are to be classified as competitive apply to all noncompetitive services—i.e., noncompetitive services provided by LECs and IXCs. No IXC has petitioned the PUC to classify a Chapter 30 noncompetitive IXC service as a competitive service. The PUC, however, in 1997 noted in the preamble to its final IXC regulations that major interexchange carriers were interested in being able to rapidly offer certain noncompetitive IXC services and were seeking to have such Chapter 30 noncompetitive services treated as competitive services in the PUC's IXC regulations "rather than engaging in a lengthy proceeding designed to ascertain whether these services are competitive or noncompetitive under the premises of Chapter 30." [12]

The PUC recognized that certain IXC services that are noncompetitive for purposes of Chapter 30 are readily available to consumers from many different providers. It, therefore, elected to exercise its discretion and not require a hearing and the filing of a Chapter 30 petition. It also shortened the filing time for Chapter 30 noncompetitive IXC service tariffs to become effective and revised its proposed definition of IXC noncompetitive services to specifically exclude prepaid debit calling card services. In taking this action, the Commission reasoned:

> End-users can obtain prepaid debit calling cards from a number of providers and not only from telecommunications carriers that are under our jurisdiction. In that respect, the exercise of our jurisdiction and our efforts in protecting the public interest and end-users of telecommunications services, can best be directed in areas where our regulatory oversight will be of the most social benefit at the least administrative cost to this agency.[13]

At a public meeting held May 1, 2003, the PUC initiated an investigation to reclassify the two remaining noncompetitive services provided by IXC's as competitive due to changes in market conditions.[14]

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[11] 52 Pa. Code §63.107.
[12] 27 Pa.B. 3217.
[13] 27 Pa.B. p. 3217.
[14] 33 Pa.B. 2448.

PUC Reclassification of IXC Services From Competitive to Noncompetitive. To date, the PUC has not reclassified a Chapter 30 competitive IXC service as non-competitive. Current PUC IXC regulations provide that the PUC can reclassify a competitive IXC service to a noncompetitive service based upon the results of a:

- Commission investigation, or
- Complaint filed with the Commission.

Such PUC regulations departed from the specific statutory criteria for determining if a service is competitive or noncompetitive.[15] The regulations, however, set forth the general criteria the Commission will consider when considering whether to reclassify a Chapter 30 competitive service as a noncompetitive services. The criteria include:

- Availability of like or substitute service alternatives in the relevant geographic area(s).
- Ease of entry of potential competitors into the market.
- Presence of other existing telecommunications carriers.
- Ability of other telecommunication carriers to offer the service at competitive prices, terms and conditions.
- Other factors deemed relevant by the Commission.[16]

Chapter 30 Permitted the PUC to Authorize Toll Service Rate Deaveraging

Chapter 30 deemed message toll services provided by IXCs to be competitive services, but it prohibited IXCs from deaveraging the price they charged for such services unless authorized to do so by the PUC.[17] Chapter 30 does not include a specific definition of deaveraging. Typically, however, the term "deaveraging of toll rates" refers to the alignment of prices in a way that is consistent with the cost of providing service on specific toll routes, rather than pricing the service on an average cost for all toll routes.[18]

Prior to the passage of Chapter 30, the FCC had started to require deaveraging for pricing of certain services that came under its jurisdiction as a way of assuring that prices carriers charged were aligned closely with carrier costs to provide specific service--thus reducing the potential for anti-competitive behavior. At that time, however, PUC commissioners had reservations about rate deaveraging

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[15] 66 Pa.C.S.A. §3005(a).
[16] 52 Pa. Code §63.106(d).
[17] 66 Pa.C.S.A. §3008(d).
[18] *Recommended Decision PUC Investigation into IntraLATA Interconnection Arrangements, Docket No. I-00940034;* November 13, 1995, Glossary of Terms, p. 3.

because of its potential adverse impact on other important state policy goals. A PUC order issued in the first half of 1993,[19] noted:

> Although, the FCC's reasoning on density pricing has merit, it is in conflict with the Pennsylvania's long term communications goals and with the nation's continual goal of universal service.
>
> Recent census data shows that Pennsylvania ranks first in the nation with regard to percentage of population classified as rural. In addition, Pennsylvania has highly urbanized populations in Philadelphia, Pittsburgh and other areas throughout the state. Zone pricing as proposed by the FCC would appear to be detrimental to Pennsylvania's long term goals of providing state-of-the-art telecommunications services throughout the Commonwealth in rural, urban and suburban areas. Deaveraging rates for the sake of density-based pricing would result in LECs [local exchange carriers] tailoring high rates for rural Pennsylvania exchanges and low rates for urban Pennsylvania exchanges. This, in turn, 'would send the appropriate economic signals' to the competitive access industry to enter the urban markets in Pennsylvania and disregard Pennsylvania's rural markets.[20]

Immediately after Chapter 30 became law, the Commission issued an order concerning its requirements for IXC carriers. The order required continued filing of tariffs by IXCs for a variety of reasons, including enabling the Commission "to monitor the Chapter 30 prohibition against the IXC deaveraging of standard message toll service rates in the absence of prior Commission authorization."[21] In January 1995, the Commission further established Interim Guidelines for regulation of interchange carriers under Chapter 30. The Guidelines directed "IXCs shall not be permitted to deaverage standard Message Toll Service rates unless authorized to do so by the Commission."[22] In view of federal policies promoting competition in the telecommunication industry and use of deaveraging, however, the PUC could not indefinitely prohibit deaveraging of IXC message toll service rates.

PUC Orders Authorizing Message Toll Service Rate Deaveraging. The Commission first authorized a large interexchange carrier to price message toll service at different levels for residential and business customers with message toll service (MTS) rates lower for certain business customers than for residential customers in

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[19]The order sets forth the PUC's policy concerning interconnection for intrastate special access. Special-access services is defined in Chapter 30 as "service provided over dedicated nonswitched facilities by local exchange telecommunications companies to interexchange carriers or other large volume users which provide connection between an interexchange carrier or private network and a customer's premises." Chapter 30 provides for special-access service as a noncompetitive and a protected telephone service.

[20]23 Pa.B. 2156.

[21]*Interexchange Carrier Regulation Under Chapter 30 of the Public Utility Code, Docket No. M-00930496*; Order entered December 28, 1993, p. 8.

[22]*Interexchange Carrier Regulation Under Chapter 30 of the Public Utility Code, Docket No. M-00930496 et al.*; Order entered January 10, 1995.

January 1995. According to one PUC commissioner this marked the "first time that in Pennsylvania any telecommunications utility—either a local exchange (LEC) or an interexchange carrier (IXC) would price standard MTS at different levels for residential and business customers." The Commission approved the carrier's optional calling plans since they provided for price reductions for both residential and business customers, and because the proposed business tariff "does not propose differing rates based upon a customer's geographical location in this Commonwealth . . . ." Since the proposed rate did not differ based upon a customer's geographic location, the Commission did not consider the filing to technically involve rate deaveraging.[23]

In March 1995, however, the PUC permitted a tariff filing involving geographic rate deaveraging to become effective. It did this despite objections from its Office of Trial Staff (OTS). OTS asserted that the carrier should have petitioned the commission for permission to deaverage its message toll service. The Commission, however, allowed the proposed tariff to become effective since it reduced rates by approximately one-third for intraLATA message toll calls originating in one local exchange carrier's territory, and did not seek to "make up revenue losses resulting from the decrease in rates for some other customer class or geographic area [i.e., customers in other local exchange carrier areas]." In its order it noted:

> Simply determining that the [IXC tariff] deaverages some rates does not bind the Commission. The Commission can approve the [IXC's tariff] without hearings or an investigation and with the full understanding that this [tariff] may fit the technical definition of rate deaveraging. The Chapter 30 law authorizes the Commission to allow deaveraging.[24]

When the PUC promulgated regulations for IXC carriers in July 1997, it deleted the explicit prohibition on message toll service rate deaveraging without prior Commission approval that had been incorporated into its earlier orders and proposed regulations.[25]

Local Exchange Carriers' Message Toll Service

When Chapter 30 was enacted in 1993, both IXCs and LECs provided certain message toll services. As noted above, in the mid-1980s' when the PUC adopted streamlined tariff filing requirements for such services, it applied them to services provided by both IXCs and LECs.

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[23]See *AT&T Petition for Approval of Revised Optional Calling Plans, Docket No. L-00920069 et al.*; Order entered January 24, 1995.

[24]*Pennsylvania Public Utility Commission v. AT&T Communications of Pennsylvania, Inc., Docket No. M--00940503F0095*; Order entered March 31, 1995.

[25]See for example, the PUC Orders, *Interexchange Carrier Regulation Under Chapter 30 of the Public Utility Code, Docket No. M-00930496;* Order entered December 28, 1993, and *Interexchange Carrier Regulation Under Chapter 30 of the Public Utility Code, Docket Nos. M-00930496 and L-00940099*; Order entered, January 10, 1995.

Chapter 30 calls for the PUC to "promote and encourage the provision of competitive services by a variety of service providers on equal terms throughout all geographic areas . . . ."[26] To continue to remain competitively neutral, the PUC therefore determined that it would apply the same regulatory procedures that it adopted in 1997 for tariff filings of rate changes to LEC toll services that it applied to IXCs services. Such procedures, however, would apply to LECs only after they had implemented "dialing parity" for message toll services as required by the PUC.

Dialing Parity. IntraLATA[27] dialing parity (also known as IntraLATA presubscription) refers to the ability of a wireline telephone customer to select in advance a toll service provider other than his/her LEC and not have to dial a string of long dialing codes in order to place a toll call. In other words, when a consumer opts to subscribe to a toll service provider other than his/her local exchange company, the dialing procedures for such calls would be the same.

In December 1995, the PUC ordered all local exchange carriers to implement dialing parity by the second-half of 1997. TA-96 also required implementation of dialing parity in order to promote competition, and the FCC mandated implementation by February 8, 1999.[28] By October 1997, all but one small incumbent local exchange carrier had approved plans implementing dialing parity as required by the PUC and FCC. In October 1997, the PUC ordered some competitive local exchange carriers that had not filed the required plans to do so on or before January 1, 1998.[29]

Message Toll Service Not Classified as Competitive for All Carriers. The PUC currently applies the same regulatory tariff procedures for rate changes to IXC and LECs' message toll services. It considers such services to be competitive for purposes of Chapter 30 when they are provided by an IXC. Following the enactment of TA-96, the PUC also considered such services to be competitive for purposes of Chapter 30 when provided by a local exchange carrier that TA-96 classifies as a competitive local exchange carrier.

Chapter 30 and the PUC, however, classify message toll services that are widely available to consumers from a variety of providers as a "noncompetitive service" when provided by an LEC in operation prior to the passage of Chapter 30. Finding K provides detailed information on why "competitive activities" such as message toll services are still considered "noncompetitive services" for purposes of Chapter 30 when provided by local exchange carriers.

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[26]66 Pa. C.S.A. §3001(7).

[27]A LATA (Local Access and Transport Area) is one of 161 local telephone exchange areas established as a result of the AT&T divestiture in the 1980's and which serve to distinguish local phone service and long-distance service. IntraLATA refers to communication within a LATA. InterLATA refers to communication between LATAs.

[28]See PUC orders, *Investigation into IntraLATA Interconnection Arrangements, Docket No. I-00940034*; Order entered December 14, 1995, and *IntraLATA Presubscription Implementation, Docket No. I-00940034;* Order entered May 9, 1997.

[29]PUC order concerning a motion of various telephone companies for approval of IntraLATA Presubscription Implementation Plans, *Docket No. I-00940034*; Order entered October 3, 1997.

D. PUC Orders Implementing Chapter 30 Evolved Over Time

The PUC moved quickly to implement Chapter 30. The procedures adopted to implement Chapter 30, however, did not result in review and approval (or disapproval) of most company petitions for alternative regulation and network modernization plans within a relatively brief period, such as the nine months provided for in statute. Issues introduced by parties during the various proceedings, moreover, further slowed the pace of Chapter 30 implementation.

Bell Atlantic-Pennsylvania, Inc, for example, submitted its alternative regulation petition and network modernization plan on October 1, 1993. The PUC approved the alternative regulation petition with modifications in an order entered on June 28, 1994, and subsequently approved the company's network modernization plan in an order entered on July 18, 1995. Issues related to the PUC-approved orders were challenged in Pennsylvania courts. The Commonwealth Court issued its decision in December 1995 and the Supreme Court in late December 1997.[1]

Only two of the LEC Chapter 30 alternative regulation petitions and network modernization plans were approved by the PUC within nine months of their filing. Both petitions and plans resulted from settlement agreements. (Finding E provides the date of each LEC's initial filing and the PUC's last relevant approving order.)

Initial Implementation Activities

The PUC established its process to implement the requirements of Chapter 30 in a series of administrative orders. The PUC recognized that initially implementation would involve a significant number of complex on-the-record proceedings before the Commission, each of which would determine the infrastructure development and rate structure for a given LEC. Due to the statute's nine month time frame (i.e., approximately 180 working days) from date-of-filing in Chapter 30 for its administrative proceedings related to alternative or streamlined regulation, requests for designation of services as competitive and associated network modernization plans, the PUC sought to develop an organized review process. To assist in the development of a process, the PUC held a public forum on August 16, 1993, to solicit comments from interested parties regarding procedural and substantive issues relating to Chapter 30 litigation.

Procedures were developed for petitions for alternative form of regulation, including network modernization plans, and separately, at a later date, for a streamlined form of rate regulation, a type of alternative rate regulation.[2] In general, the procedures were similar in nature to the rate-hearing process, and interested

[1]See Appendix A.

[2]The act authorizes streamlined form of rate regulation for LECs serving less than 50,000 access lines.

parties could participate. Neither set of procedures prescribes a standard format for petitions or plans.

Procedures for Alternative Forms of Regulation

In an August 1993 order, the PUC established notice, filing and litigation schedule requirements for LECs seeking an alternative form of regulation.[3] The order, however, was not able to comprehensively address all of the issues associated with implementation of the statute that would arise during Chapter 30 proceedings. As a result, the PUC's procedures for alternative form of regulation were set forth in multiple orders issued over a several-year time frame.

Rate Base/Rate of Return Analysis in Chapter 30 Proceedings. The act requires the PUC to find that a proposal for an alternative form of regulation "assures that the rates for noncompetitive services are just and reasonable and not unduly discriminatory through the use of a price stability mechanism or other alternative form . . . ."[4] The act indicates that a price stability plan that starts with existing noncompetitive service rates as the baseline and provides for an annual revenue escalator related to economic indicators is an acceptable type of price stability mechanism.

Although not clearly required by Chapter 30, the PUC initially followed a process that required a determination of whether the rates are just and reasonable regardless of whether the baseline included existing rates. In effect, this process included a review of existing rates even though they were previously subject to PUC review under the just and reasonable standard when they were established.

Based on the PUC's August 1993 order, the Administrative Law Judge, when considering Bell's Chapter 30 petition, did not accept the company's existing PUC-approved rates as the revenue baseline for the company's proposed alternative form of regulation and allowed the parties to engage in rate base/rate of return analysis as part of the proceedings. In response to this issue during the review of Bell's petition and plan, four Pennsylvania Senator's wrote to the Commission expressing their concerns with the recommended interpretation of Chapter 30 put forth by the Administrative Law Judge regarding the baseline rates, as well as other matters.[5] Regarding the use of existing baseline rates, the letter stated:

> Further, the recommendation incorrectly states that current rates must be justified by a petitioning company under rate base/rate of return regulation. As noted earlier, this Legislature, on at least three

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[3]The PUC implemented the requirements through an administrative order, PUC Docket No. M-930441 (August 27, 1993), since Chapter 30 petitions would be filed and litigated before the finalization of regulations.
[4]66 Pa.C.S.A. §3004(d)(2).
[5]Letter dated May 11, 1994, to PUC Secretary Alford from Robert J. Mellow, Democratic Leader; J. William Lincoln, Democratic Whip; F. Joseph Loeper, Majority Floor Leader; and Gibson E. Armstrong, State Senator.

> occasions, rejected the notion that a telephone company must justify its existing rates when filing for alternative regulatory relief. It makes no regulatory, financial, or policy sense to analyze, in traditional just and reasonable terms, a petition for alternative regulation which by law must be 'other that traditional rate base/rate of return regulation.' Section 3002.[6]

The letter went on to criticize the consideration of earnings sharing stating that, "The continued emphasis on company earnings, which the ALJ's sharing recommendation reflects, is directly at odds with our conclusion and legislative directive that consumer protections should be provided through price controls, not through continued earning controls."[7]

Subsequently, when issuing its order in the Bell Chapter 30 proceeding, the Commission determined that the Commission is "not constrained by traditional rate base/rate of return analysis in determining whether a utility's existing rates, which are proposed as baseline rates under the alternative form of regulation, are just and reasonable."[8] The PUC also cited to an earlier decision involving smaller companies that held the burden of proof was on the party challenging that the current rates are not just and reasonable and that the commission need not use the traditional rate base/rate of return analysis in evaluating the evidence submitted.[9]

In the earlier case, however, parties to the proceeding continued to seek information consistent with traditional rate base/rate of return methods of regulation. The companies involved sought a clarification of the April 6, 1994, order to restrict the information that was available in discovery. The PUC issued further guidance regarding the information the small companies should provide in response to discovery requests, reiterating that the proceedings should not be conducted in a manner consistent with rate base/rate of return regulation. The PUC did not accept the recommendation of the small companies that any review into the revenues of a filing company is improper. These companies then withdrew their petition for a streamlined form of regulation in June 1994, citing in part the increased costs of litigation.[10]

Efforts to introduce rate base/rate of return analysis into Chapter 30 proceedings continued despite the PUC's 1994 decision in the Bell proceeding. The issue regarding the use of a rate base/rate of return analysis was not fully resolved until

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[6]May 11, 1994, Letter page 2.
[7]May 11, 1994, Letter page 3.
[8]*Bell Atlantic-PA, Inc.'s Petition and Plan for Alternative Form of Regulation Under Chapter 30, Docket No. 00930715*; Order entered June 28, 1994, p. 49.
[9]*Joint Petition of Breezewood Telephone Company, Canton Telephone Company, Enterprise Telephone Company, Lakewood Telephone Company, Oswayo River Telephone Company, Docket No. P-00940754;* Order entered April 6, 1994.
[10]These companies eventually filed a plan that was accepted by the Commission in 1997.

1999. In a rate rebalancing case involving Frontier Communications, the PUC held that earnings, depreciation, and capital investments made by Frontier exceeded the scope of the proceeding and are contrary to the Chapter 30 regulatory scheme. The opinion stated that, "[o]nce a Company receives approval of a Chapter 30 Plan for streamlined regulation, which includes a schedule for network modernization, the alternative to rate base/rate of return regulation should prevail."[11]

Procedures for Streamlined Regulation

In a December 28, 1993, order, the PUC adopted the litigation procedures established for alternative regulation litigation for streamlined regulation.[12] The PUC, however, authorized the administrative law judges to use discretion to evaluate each of the procedures within the context of streamlined regulation. The PUC also prohibited the filing of reply briefs, sought the elimination of factual disputes through stipulation of the parties, and implemented a collaborative process to develop a model format and other appropriate standards. Subsequently, the PUC found it necessary to issue additional orders to facilitate small companies filing Chapter 30 petitions and network modernization plans.

Presumptively Valid Baseline Rates. The PUC adopted additional procedures in an April 28, 1995, tentative order issued after a collaborative process that involved interested parties.[13] In it, the PUC indicated that it would consider presumptively valid any small LEC streamlined regulation petition that incorporates a price cap or PSM formula method that is based on the difference between the GDP-PI[14] and an inflation offset where the inflation offset value is not less than 2.80 percent.[15] (Finding L provides detailed information on how alternative regulation price cap formulas work to establish the price customers pay for telephone services.) Five "market baskets" were developed for the noncompetitive services of small LECs, restricting to some extent the manner in which they would be treated under price caps or the PSM formula. Limits were also placed on potential annual rate increases under the operation of a price cap or PSM formula for the noncompetitive services. Existing rates would not be subject to a full-blown rate base/rate of return review unless the petition for streamlined regulation is accompanied by a request

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[11]*PUC v. Frontier Communications of Pennsylvania, Inc., R-00984411; P-00951005*; Order entered February 11, 1999.

[12]*Implementation of Chapter 30 of the Public Utility Code; Streamlined Form of Regulation, Docket No. M-930483*; Order entered December 28, 1993.

[13]*Implementation of Chapter 30 of the Public Utility Code; Streamlined Form of Regulation, Docket No. M-00930483*; Order entered April 28, 1995.

[14]Gross Domestic Product Price Index.

[15]The PUC also stated that small LECs would not be precluded from seeking streamlined regulation on the basis of regulatory flexibility that may encompass elements of traditional rate base and rate of return regulation. The PUC authorized an inflation offset of 2.00 percent in later filings, the first of which was *Petition of Commonwealth Telephone Company for an Alternative Regulation and Network Modernization Plan, Docket No. P-00961024*; Order entered January 17, 1997.

for changes in the base rates. A 12 percent return on equity (ROE) was adopted as the general benchmark as articulated in the Bell order.[16]

Competitive Services' Rebuttable Presumption. The PUC also addressed classifying services as competitive. To facilitate significant administrative efficiencies, any small LEC petitioning for streamlined regulation had a rebuttable presumption that LEC services found to be competitive in other Chapter 30 proceedings were competitive within the context of the small LEC's streamlined regulation petition. This eliminated the need for each small LEC to individually advance the same arguments and sustain the same burden of proof in classifying the same services as competitive. Interested persons were requested to comment on these additional guidelines.

The PUC adopted the April 1995 Tentative Order as final with few modifications in August 1995.[17] In response to comments received from the Pennsylvania Telephone Association, the PUC removed the market basket classification requirement to allow smaller LECs adequate flexibility to respond to unforeseen developments while operating under streamlined regulation and meeting their broadband network deployment requirements. The PUC also clarified that small LECs would not be subject to a review of rates if the petitioning LEC was not the subject of an overearnings complaint by the PUC during the prior year's earnings review and the petitioning LEC was not requesting an increase in rates as part of the Chapter 30 petition.

Use of Settlement Agreements

The PUC has used settlement agreements in implementing the provisions of Chapter 30. The process generally involves the company seeking action, other companies that may be in opposition, the Office of Trial Staff and the Consumer Advocate. The Commission's general policy is to encourage the settlement of formal cases whenever such settlement would be in the public interest. The PUC has adopted specific settlement guidelines and procedures designed to promote early discovery and settlement in the public interest for general rate increases of $1 million or more.[18, 19] A proposed settlement is subject to public interest review by the Office of Administrative Law Judge and the Commission.

A proposed settlement agreement may be approved by the ALJ and submitted to the Commission in an Initial or Recommended Decision for review in the absence of all parties agreeing to the settlement. Parties not in agreement are

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[16] *Bell Atlantic-Pa*, Order entered June 28, 1994.

[17] *Implementation of Chapter 30 of the Public Utility Code; Streamlined Form of Regulation, Docket No. M-00930483*; Order entered August 25, 1995.

[18] 52 Pa. Code §§69.401-69.406.

[19] The PUC has also established a voluntary Alternative Dispute Resolution (ADR) process in which an impartial mediator is available to facilitate resolution of the contested issues. 52 Pa. Code §§69.391-69.395.

permitted to state their reasons and to delineate what issues they would raise if the settlement were rejected and how their interest would be affected if the agreement were accepted. All parties in the case may submit exceptions to the Initial or Recommended Decision stating why they have not accepted the agreement or why the Commission should accept the settlement.

The key standard for the PUC to determine the acceptability of a settlement agreement "is whether the settlement's terms and conditions promote the public interest."[20] This could result in agreements with standards different than those in Chapter 30. For example, to avoid delaying implementation of United Telephone's Chapter 30 Plan, the PUC agreed to a settlement that included different access charges for the company and its competitors which, arguably, conflicts with the act's goal of competition.[21]

Review and Approval of Alternative Regulation Petitions and Network Modernization Plans

LECs are required to submit a petition when seeking an alternative form of regulation or streamlined regulation. The petition must include the company's network modernization plan. The Commission must act in nine months or the petition is deemed approved.[22] If the PUC rejects a plan, the LEC has six months to submit a new plan. Companies that do not submit a plan within five years of the effective date of the act must show cause for not doing so. Finding E provides detailed information on petition and plan submission and approval dates for all of the companies.

The act delineates the criteria for the Commission's review. These include factors such as the continued affordability of protected telephone service, a price stability mechanism tied to the GDP-PI and an inflation offset, and the provision of rate deregulation of all competitive services. The Commission's approval of a request for streamlined rate regulation is based on the Commission finding that (1) the proposal reduces regulatory delays and costs, (2) the proposal is consistent with general due process requirements, (3) the proposal is consistent and in compliance with Chapter 30's provisions, and (4) the proposal is in the public interest.

Under the procedures adopted by the PUC for implementing Chapter 30, responsibility for review of company petitions and plans for consistency with Chapter 30's provisions remained with the parties to the proceedings and the PUC's Administrative Law Judges. Consistency among company submissions was not a factor relied on by PUC technical staff in reviewing filings prior to the PUC approving a

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[20]*Recommended Decision Approving Joint Petition for Settlement, Docket No. C-00003887*; March 18, 2002.
[21]*Petition of the United Telephone Company of Pennsylvania for Approval Under Chapter 30 of the Public Utility Code of an Alternative Regulation and Network Modernization Plan, Docket No. P-00981410*; Order entered July 16, 1999.
[22]66 Pa.C.S.A. §3004.

petition or plan or approving petitions and plans that resulted from settlement agreements reached by parties to the proceeding, according to PUC staff. Finding L provides detailed information on key provisions of the approved petitions and plans and highlights several of their key differences.

Statutory Requirement for Reduced Reporting by Small Companies.

Chapter 30 included provisions intended to immediately reduce the regulatory burden on small companies. All interested parties, however, did not agree that such provisions should take effect immediately.

In April 1995, in response to a Pennsylvania Telephone Association (PTA) Petition for Declaratory Order, the PUC reduced some, though not all, reporting and auditing requirements for the smaller LECs with fewer than 50,000 access lines.[23] The related Commission Order, however, did not eliminate certain financial and annual reports and specifically continued a number of preexisting and ongoing efficiency management reports for certain smaller LECs.[24] The PUC generally agreed with PTA's position that Chapter 30 provisions regarding the reporting and auditing requirements under 66 Pa.C.S.A. §3006(d) took effect upon the enactment of the statute. Thus, the smaller LECs need not first obtain streamlined regulation prior to the reduction in reporting and auditing requirements.

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[23] *Petition of the Pennsylvania Telephone Association for Issuance of a Declaratory Order Determining That, Upon Passage of Act No. 67 of 1993, the Language of 66 Pa.C.S.§3006(d) Became Effective and Audit Requirements for Local Exchange Carriers of Less that 50,000 Access Lines,* filed February 16, 1994.

[24] *In re Petition of the Pennsylvania Telephone Association for Issuance of a Declaratory Order Determining That, Upon Passage of Act No. 67 of 1993, the Language of 66 Pa.C.S.§3006(d) Became Effective and Audit Requirements for Local Exchange Carriers of Less that 50,000 Access Lines, Docket No. P-00940771;* Order entered April 28, 1995.

E. Not All Local Exchange Telecommunication Companies Have Filed Chapter 30 Petitions and Plans

Chapter 30 provides for local exchange telecommunications companies (LECs) to file petitions for alternative and/or streamlined regulations, which must include plans to modernize their networks, and comply with Chapter 30's requirements for access charges. Since such petitions are voluntary, Chapter 30 mandates that the Commission "require any local exchange telecommunication company which has not filed a petition and plan within five years of the effective date of this chapter [i.e., July 8, 1998] to show cause why it has not done so."[1] Chapter 30 defines a local exchange telecommunication company as "a carrier authorized by the commission to provide local telecommunications services," and authorizes the PUC to "certify more than one local exchange telecommunications company to provide local telecommunications services." [2]

LECs With Approved Chapter 30 Petitions and Plans

As of December 31, 1998, all LECs operating in 1993 had filed Chapter 30 petitions except four that were granted waivers.[3] As shown in Exhibit 2, Bell Atlantic of Pennsylvania was the first and only company to file its petition in 1993. Five companies initially filed in 1994, one in 1996, four in 1997, and the remaining companies in 1998.

Exhibit 2 also shows that typically two or three years lapsed from the time when most companies first submitted their Chapter 30 petitions and network modernization plans and when the PUC entered its "last" order[4] relevant to approval of the petition and plan. The lengthy time required for the Chapter 30 process to unfold is in part related to the processes the PUC (as a quasi-judicial rather than an administrative agency) adopted to implement Chapter 30. (Finding D provides information on the PUC's Chapter 30 implementation processes.) Some of the company petitions and plans that were approved more quickly were the result of settlement agreements between interested parties such as the local exchange company, interexchange carriers, the Office of Consumer Advocate, and the Commission's Office of Trial Staff.

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[1] 66 Pa.C.S.A. §3003(d).
[2] 66 Pa.C.S.A. §§3002, 3009.
[3] Exhibit 2 shows that some of the operating companies filed jointly.
[4] This term refers to the last order potentially modifying or clarifying the substance of the petition and plan.

Exhibit 2

Chapter 30 Petition and Plan Filing and Approval Dates

Company	Date of Initial Filing	Date of Last Order
ALLTEL Pennsylvania	7/31/98	7/30/01
Bell Atlantic Pennsylvania (Verizon-PA)	10/1/93	7/18/95
Commonwealth	4/15/96	6/16/97
Five Frontier Companies (i.e., Frontier Communications of Breezewood; Canton, PA; Lakewood; and Oswayo River)[a]	Initial Petition - 1/3/94 (withdrawn on 5/94) Second Petition – 3/1/96	5/23/97
GTE North (Verizon-North)	12/15/98	4/11/02
Ironton[a]	3/28/97	12/18/97
Kecksburg[a]	8/11/97	4/28/99
Small Company Group – Plan A (i.e., Buffalo Valley Telephone Company; Conestoga Telephone and Telegraph Company; Denver and Ephrata Telephone and Telegraph Company; and North Pittsburgh Telephone Company)	7/31/98	7/30/01
Small Company Group – Plan B (i.e., Armstrong Telephone Company-North; Armstrong Telephone Company – PA; Bentleyville Telephone Company; Hickory Telephone Company; Lackawaxen Telephone Company; Laurel Highland Telephone Company; Marianna & Scenery Hill Telephone Company; Northeastern Pennsylvania Telephone Company; North Penn Telephone Company; Pennsylvania Telephone Company; Palmerton Telephone Company; Pymatuning Independent Telephone Company; South Canaan Telephone Company; Venus Telephone Corporation; and Yukon-Waltz Telephone Company)	7/31/98	7/30/01
TDS Telecom (i.e., TDS Mahanoy & Mahantango, TDS Sugar Valley)[a]	1/31/97	1/29/98
United/Sprint[a]	10/16/98	7/16/99

[a]Approval of the petition and plan resulted from a settlement or partial settlement agreement.

Source: Developed by LB&FC staff from various PUC orders.

Exhibit 2 shows that most of the small rural carriers did not submit Chapter 30 petitions and plans until 1998. Chapter 30 does not require companies to submit petitions and plans unless seeking alternative regulation, and the PUC provided small rural companies with an incentive for such submissions after Congress passed TA-96.

Incentive for Small Rural Carriers to File Chapter 30 Petitions and Plans

With some exceptions, TA-96 requires carrier interconnection agreements. Such agreements are one of several ways in which TA-96 seeks to provide for open competitive telecommunication markets. (Finding P provides additional information on the various ways TA-96 promotes competition.) In July 1997, the PUC indicated that it would grant rural carriers[5] having less than two percent of the subscriber lines nationwide, and meeting certain other conditions, a two-year standing exemption[6] from TA-96's carrier interconnection obligations.[7]

The PUC based its decision to grant such exemptions on a variety of factors, including TA-96 and Chapter 30's interest in promoting advanced telecommunication networks and services. In its 1997 order the PUC stated:

> We believe this decision is consistent with TA-96. We further believe that our decision avoids challenges to Chapter 30 as a barrier to competition under Section 253 (a) of TA-96. However, any Section 251 (f) (2) relief is premised on Petitioners' filing alternative regulation and network modernization plans under Chapter 30 and deployment of an advanced telecommunications network available to the public schools, libraries, and other public facilities in rural Pennsylvania. The Petitioners' failure to comply with these conditions may result in revocation of any Section 251 (f) (2) relief provided by the Commission.[8]

The PUC subsequently[9] modified previously approved petitions and plans of small companies and extended the TA-96 exemption to those companies.

The PUC's 1997 order did not exempt small rural carriers from all types of competition. It exempted them from competition resulting from interconnection

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[5]*Petition of Rural and Small Incumbent Local Exchange Carriers for Commission Action Pursuant to Section 251(f)(2) and 253(b) of the Telecommunications Act of 1996, Docket Nos. P-00971177 and P-00971188;* Order entered July 10, 1997, p. 5.

[6]Specifically, the PUC granted a 2-year suspension with the option for three subsequent 1-year extensions, for a total of 5-years suspension from interconnection obligations.

[7]47 U.S.C. §251 (f)(2).

[8]*Petition of Rural and Small Incumbent Local Exchange Carriers for Commission Action Pursuant to Section 251(f)(2) and 253(b) of the Telecommunications Act of 1996, Docket Nos. P-00971177 and P-00971188;* Order entered July 10, 1997, p. 5.

[9]*Petition of the Frontier Companies for Commission Action Pursuant to Section 251(f)(2) of the Telecommunications Act of 1996, Docket No. P-00981393;* Order entered December 7, 1998, p.4.

agreements, but not competition from facility-based competitors seeking to provide service in their territory. In January 2003, the PUC voted not to grant the rural incumbent local exchange carriers' request to extend their standing suspension from TA-96's interconnection agreement obligations.[10]

LECs With PUC-Approved Waivers

The PUC has not required all local exchange companies to file alternative regulation petitions and network modernization plans. The PUC waived, or is considering waiving, the Chapter 30 petition and plan requirement for four small LECs in operation when Chapter 30 was enacted: [11]

- Citizens Telecommunications Company,
- Deposit Telephone Company,
- Hancock Telephone Company, and
- West Side Telephone Company.

Such companies are multi-jurisdictional providers with the majority of their operations outside of Pennsylvania.

LECs Without Chapter 30 Petitions and Plans

When Chapter 30 was enacted in 1993, it required all local telephone companies to comply with its petition and plan requirements. It did not distinguish between local exchange telecommunication companies in operation prior to 1993 and those that came into existence as a result of it authorizing the PUC to certify competitive local exchange companies to provide local telecommunications services.

Initially, the PUC indicated that it would apply Chapter 30 petition and plan requirements to all local exchange telecommunication companies authorized to operate in Pennsylvania. In October 1995, when approving the first competitive LECs, the PUC noted:

> After consideration of the positions of the parties, we conclude that regulatory LEC parity should be preserved to the extent consistent with Chapter 30 . . . MFS [MFS Intelenet of Pennsylvania Inc.] shall

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[10] *Petition of Rural Incumbent Local Exchange Carriers for a 36-month Suspension of Interconnection Requirements Limited to Only Those Requirements Set Forth in Section 251(b)(1) and (c) of the Telecommunications Act of 1996 and petition to Join and for Relief Under Section 251(f)(2) of the Telecommunications Act of 1996, Docket No. P-00971177*; Order entered January 15, 2003.

[11] Citizens Telecommunications Company was granted a waiver in a PUC order entered November 8, 1999. Hancock Telephone Company was granted a waiver in a PUC order entered on November 8, 1999. West Side Telephone company was granted a waiver in a PUC June 21, 2001, order. Deposit Telephone Company filed a petition for waiver with the PUC on May 8, 2003, and a final decision is pending.

> . . . be required to file a network modernization plan and alternative regulatory plan consistent with the provisions of Chapter 30.[12]

In March 1996, moreover, the PUC required a newly certified competitive LEC to file a Chapter 30 petition in order to have services it intended to provide classified as Chapter 30 competitive services and exempt from certain PUC tariff filing requirements.[13]

Subsequently, the PUC determined that it would not require Chapter 30 petitions and network modernization plans for LECs authorized after 1993. The PUC outlined its reasoning in the preamble to final regulations updating and revising tariff filing requirements published in December 2000. Quoting from a 1999 PUC order, the PUC indicated:

> [W]e do not believe that the proposed regulations [which eliminate any requirement for an LEC certified by the PUC after 1993 to file a Chapter 30 petition to have its noncompetitive services treated as competitive] contradict the statutory requirements of Chapter 30. Indeed . . . the absence of an alternative or streamlined regulation plan for a new entrant CLEC [competitive local exchange carrier] does not in any way damage the public interest. In reality, CLEC operations are not currently regulated on the basis of a rate base/rate of return method. Thus, the filing of a Chapter 30 alternative or streamlined regulation plan by a CLEC would simply formalize existing regulatory parameters, albeit at a rather high administrative cost for the CLEC concerned and for this Commission. [14]

The PUC reasoned in 1999 that Chapter 30 petitions and plans were not required of competitive local exchange carriers because their rates were not established based on rate base/rate of return methods.[15] The PUC also noted in its regulatory preamble that it could not require Chapter 30 petitions and plans from competitive local exchange carriers as required by Chapter 30 because TA-96 had preempted certain state laws and regulations, including those that create barriers to entry for new carriers.[16] The PUC concluded that the imposition of Chapter 30 petition and network modernization plan requirements on new local exchange carriers could be construed as such a barrier.

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[12]*Application of MFS Intelenet of Pennsylvania, Incorporated for a certificate of public convenience and necessity, Docket No. A-310203F0002*; Order entered October 4, 1995.
[13]*Petition of TCG Pittsburgh for a Determination of Whether Certain Services are Competitive Under Chapter 30 of the Public Utility Code, Docket No. P-00950998*; Order entered March 29, 1996.
[14]30 Pa.B. 6202.
[15]Fifteen small rural carries with PUC-approved Chapter 30 petitions and plans continue to have modified rate base/rate of return methodologies used to demonstrate that their local service rates are just and reasonable. Their petitions and plans were approved in 2001.
[16]47 U.S.C. §253.

As a result of the PUC's interpretation of Chapter 30 in view of TA-96, the 139 facility-based local exchange carriers the PUC authorized to operate after 1993 were not required to submit Chapter 30 petitions with network modernization plans five years after starting operation. They also were not required to request waivers documenting why they should be exempt from Chapter 30's state legislative requirements.

Small incumbent carriers have expressed their concerns about having to comply with Chapter 30's requirements whereas large facility-based carriers with which they compete are not required to incur the costs associated with such proceedings. Such facility-based carriers include the largest competitive carriers in the state. (See Finding B.)

Approved Chapter 30 Petitions and Plans

All of the LEC petitions and plans address Chapter 30's key requirements. They all:

1. Include network modernization plans with commitments to accelerate the deployment of a broadband capable network and universal broadband availability by 2015.

2. Identify noncompetitive services that the LEC seeks to have designated as a competitive service.

3. Include petitions for alternative forms of regulation that address protected services.

4. Provide for access rate reductions as specified in Chapter 30, including rate restructuring to provide for such reductions.

5. Provide for continued consumer protections.

Key Chapter 30 requirements concerning alternative regulation and network modernization are based on a major PUC study carried out in the early 1990s and discussed in Finding F. Findings later in this section of the report provide detailed information on individual LEC approved petitions and plans and how they address Chapter 30's requirements.

F. In 1993, a PUC Study Reported Pennsylvania Consumers and LECs Would Be Exposed to Substantial Financial Risk if Deployment of a Broadband Capable Telecommunications Network Was Accelerated

Prior to the enactment of Chapter 30, the Pennsylvania Public Utility Commission contracted for a telecommunications infrastructure study[1] to:

- Determine the role of telecommunications infrastructure in economic development in Pennsylvania, if any,
- Evaluate and define the telecommunications services and capabilities necessary to meet the needs of the Commonwealth's citizens and businesses for the next 20 years, including the requirements to attract and retain businesses while ensuring universal service, and
- Recommend appropriate state public policy required to promote the expedient deployment of a fiber or otherwise advanced technology network to meet the current and future needs of all Pennsylvania.

PUC staff directed the consultants carrying out the study in cooperation with industry experts.

March 1993 Pennsylvania Telecommunications Infrastructure Study

The PUC consultants found that Pennsylvania's telecommunication network was comparable to that of other states, and it had been upgraded through deployment of new technologies during the 1980s and early 1990s. The network that is in place in 2003,[2] however, was not in place when the PUC conducted its study in the early 1990s.

Network Status in the Early 1990s. At the time of the study, 100 percent of the small and 93 percent of the mid-sized LECs' access lines were served by early digital technology. However, the consultants noted that "many of the switches placed into the public switched network during the 1980s do not support advanced services such as ISDN and CLASS,[3] and would need to be upgraded or replaced in order to support those services."[4] Only 57 percent of the large LEC's lines, moreover, were digital, with business and residential customers in Philadelphia and Pittsburgh areas served primarily by analog technology.

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[1]Deloitte & Touche and DRI McGraw-Hill, *Pennsylvania Telecommunication Infrastructure Study*, March 1993.
[2]Appendix C provides a lay reader with a simplified explanation of the workings of today's telephone network and some of the terms used in the 1993 Pennsylvania Telecommunications Infrastructure Study and in this report.
[3]ISDN (Integrated Service Digital Network) and CLASS (Customer Local Area Signaling Service) are advanced telecommunication services required by Chapter 30. Finding J provides additional information about these services.
[4]Deloitte & Touche and DRI McGraw-Hill, Vol. IV, p. IX-62.

Seventy-three percent of the interoffice circuits of the large LECs were over fiber. Only 42 percent of mid-sized LECs' interoffice circuits, however, were carried over fiber facilities.

The PUC consultants reported that broadband services could not be provided over telephone company existing facilities. Their report described Primary Rate ISDN, which some businesses were testing and hoping to introduce on a wider basis, as a broadband service (with a 1.5 Mbps transmission speed) that potentially could be provided using telephone lines. They noted, however, that it could not be supported by existing analog technology and, at a minimum, required fast-packet or broadband digital switches and enhanced technical switching capacity.[5] They also reported that broadband services (at speeds of 1.544 mbps and over) in Pennsylvania were typically offered only over dedicated networks of very large businesses and government users.

Consumer Concerns About the Cost to Modernize Networks. The PUC study assessed the interest of consumers in network modernization and the effect of such modernization on the public, residential ratepayers, and local exchange carriers. The study confirmed the obvious public advantages that would result from network modernization for education, health care, and economic development and the quality of life improvements for individuals with disabilities. Despite such advantages, when the PUC consultants surveyed interested parties, including consumers, they found:

- Only 50 percent indicated a willingness to pay for the deployment of advanced telecommunications technology through higher prices for basic telephone services. (The remaining 50 percent indicated no increase in basic service rates was appropriate for residential subscribers.)
- Just over 70 percent indicated that minimizing increases in residential basic exchange rates was the most important goal state regulators should have when designing state telecommunications regulatory policies. (At most the average price increase in basic telephone services to cover the cost of deployment of advanced telecommunications technology should be no more than 1.3 percent for residential customers and 5.1 percent for business customers, according to those surveyed.)
- Only 25 percent advocated for accelerated telecommunications technology deployment to provide the network foundation for potential new services. (Forty-eight percent indicated technology investments should be made slightly in advance of customer demand, and 14 percent indicated that investment in new technologies should be deferred until after specific customer demand for emerging new services had been identified.)

In view of such findings, the consultants commented:

[5]Deloitte & Touche and DRI McGraw-Hill, pp. III-77-78 and IX-30-31.

> The real challenge for the current and future provision of telecommunications services will be to deploy new technologies without significantly increasing the cost of basic telephone service.[6]

In addition to their survey results, the consultants based their comment on their understanding of network modernization requirements and their analysis of the added costs associated with accelerating the deployment of a modernized network.

Network Modernization Benchmarks. The PUC's consultants concluded that changes in the following technology benchmarks were required in order for Pennsylvania's 1993 telecommunications networks to evolve to become "broadband capable." In order for the network to become "broadband capable," it must have:

- 100 percent Digital Switching,
- 100 percent Signaling System (SS7),
- 100 percent Interoffice Fiber Outside Plant, and
- 100 percent Fiber Feeder Outside Plant.

Based on LECs' existing depreciation and capital investment schedules, the consultants concluded that the telecommunications network in place in Pennsylvania in 1993 would not be fully upgraded until 2030. Exhibit 3 displays the deployment target dates for the PUC consultants' network modernization benchmarks based on a typical technology deployment cycle. (Exhibit 3 also includes the deployment target dates for each of the network modernization benchmarks when deployment is accelerated so that a modernized network would be fully deployed by 2015—the accelerated deployment date the General Assembly established in Chapter 30. See the discussion in Finding G.)

In their analysis, the PUC consultants recognized that all components of company networks would not be upgraded or replaced at the exact same time, and telecommunications infrastructures would be composed of multiple generations of technology as a result of such evolution. They noted:

> In order to have access to specific services or groups of services, customers must have access to a correct mix of technologies. For example, customers served by electro-mechanical switches will not have access to custom calling and CLASS services which require, at a minimum, access to a stored program control switch. Similarly, future broadband services may not be available to customers who do not have access to broadband switching and a high-bandwidth transport technology such as fiber. As a result, not all customers will have access to the same services, because not all customers have access to the same generation of technology.[7]

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[6]Deloitte & Touche and DRI McGraw-Hill, Vol I., p. I-70.
[7]Deloitte & Touche and DRI McGraw-Hill, p. I-79.

Exhibit 3

Pennsylvania Telecommunications Infrastructure Study
100 Percent Deployment Target Dates for Baseline and Moderate Acceleration Deployment Scenarios

Technology Component	Company													
	ALLTEL Pennsylvania		Bell Pennsylvania		Commonwealth		Small Company Group Plan A		GTE North		Small Company Group Plan B		United/Sprint	
	Baseline 2030	Moderate 2015	Baseline 2030	Moderate 2015	Baseline 2030	Moderate 2015	Baseline 2030	Moderate 2015	Baseline 2030	Moderate 2015	Baseline 2030	Moderate 2015	Baseline 2030	Moderate 2015
Digital Switching	1998	1998	2005	2000	1993	1993	1993	1993	1999	1999	1993	1993	1995	1995
SS7	2000	1998	1994	1994	1997	1997	1993	1993	2020	2020	1993	1993	2002	2000
I/O Fiber	2005	2000	2005	2000	2002	2002	1993	1993	2020	2020	1993	1993	2002	2000
Fiber Feeder	2030	2015	2025	2013	2002	2002	Not Provided	Not Pro-vided	2030	2015	2025	2010	2017	2012
Fiber Distribution	2030	2015	2030	2015	2030	2015	2030	2015	2030	2015	2030	2015	2030	2015

Source: Developed by LB&FC staff from Pennsylvania Telecommunications Infrastructure Study, Volume IV, pp. XII-21 and XII-23.

Costs to Modernize and Accelerate Deployment. The PUC study identified the costs of network modernization under four different deployment scenarios--a typical deployment cycle with network modernization accomplished in 2030 and three accelerated deployment cycles. The conservative accelerated deployment scenario provided for a modernized network that was fully deployed by 2020, the moderate scenario by 2015, and the aggressive scenario by 2010.

The PUC consultants' analysis[8] concluded that the costs to modernize the state's telecommunications network and accelerate the deployment of such a modernized network would result in increased rates for consumers. Network modernization would result in rate increases for consumers because it would require accelerated depreciation of existing company equipment and new capital investment. Given the rate base/rate of return methodology traditionally relied on by the PUC to determine a company's rate for basic telephone service, much of the added costs associated with acceleration depreciation and new capital investments would be passed along directly to consumers. Such rate increases would occur even though most consumers initially would not use the new advanced services available through modernized networks.

The PUC consultants' analysis also concluded that the accelerated deployment of a modernized network presented significant financial risks to LECs. In particular, they noted:

> During a typical technology deployment cycle, the costs associated with the deployment of technology are typically borne at or near the beginning of the deployment cycle. On the other hand, the penetration of new services and their associated revenue streams will tend to lag technology deployment. Therefore, the financial benefits of these investments are not realized until technology deployment has achieved a critical mass and is widely accepted. Thus, the Pennsylvania LECs will have to accelerate near-term capital expenditures to achieve future increases in broadband service revenues. This acceleration of near-term capital expenditures for long-term gain implies certain risks.[9]

The PUC's consultants determined that accelerated deployment of a broadband infrastructure would result in a "funding gap" and require additional revenues

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[8]The PUC consultants carried out their analysis using proprietary data obtained from the LECs. For purposes of their analysis, the consultants defined a broadband-capable network as one that can provide customers with telecommunications services at transmission rates above 1.5 Mbps within a reasonable service interval (e.g. one to five days) after request for service has been received. Their analysis assumed that the PUC would continue to rely on rate base/rate of return methodologies to regulate LECs. They did not attempt to take into account the impact competition would have on the projected revenue and consumer demand assumptions used in their analysis.

[9]Deloitte & Touche, Vol I, p. I-112.

beyond those required by the typical baseline deployment cycle. The least negative financial impact for the LECs would occur under the moderate acceleration scenario (i.e., deployment by 2015). The consultants reached this conclusion based on their finding that the aggressive accelerated deployment scenario would require on average additional revenue of $0.66 per access line per month from 1993-2030, the conservative scenario $0.45 per line per month, and the moderate scenario $0.30 per line per month.

The PUC's consultants noted that their analysis of the added costs to accelerate deployment included assumptions about increased consumer demand and purchase of new services, and that the financial risks to LECs associated with accelerated deployment substantially increased if the broadband capable network is built but underutilized by consumers. In other words, if LECs "build it and they don't come," the accelerated deployment funding gap is much more substantial. Assuming the worst case scenario,[10] the PUC's consultants estimated that the cost for basic telephone service for the typical household could be expected to rise by an average of $25 per year (in 1991 dollars) and by as much as $63 in the year 2005 if residential rate increases were used to cover the "funding gap." The consultants did not estimate the impact of over-modernization beyond 2005 noting:

> It would be unreasonable to extend the over-modernization analysis through 2030 because it is unlikely that Pennsylvania LECs or the Pennsylvania PUC would pursue an aggressive modernization plan for 37 years if the demand for broadband services did not meet the expectations.[11]

Alternatives to Cover the Funding Gap Associated with Accelerated Deployment. In addition to consumer rate increases, the PUC consultants considered alternative ways to cover the funding gaps associated with accelerated deployment of a modernized network. Their alternatives included tax subsidies and alternative forms of regulating telecommunication companies. With respect to increasing state taxes and targeting the new tax dollars to help fund network modernization, they concluded:

> The tax subsidy has several positive qualities. First, unlike a direct increase in business rates, a tax increase does not affect the relative price of telecommunications. . . . A broad based tax increases the price of all goods produced in the economy but does not increase substantially the cost of one good over another. Second . . . Pennsylvania firms may be able to pass a portion of a tax increase on to out-of state customers. Third, since a broad based tax is levied against all producers

[10]Accelerating deployment to 2010 with growth in consumer demand for services paralleling growth under a typical deployment cycle.
[11]Deloitte & Touche, Vol I, p. I-164.

> and consumers, it does not disproportionately affect telecommunications-intensive industries as does a business rate hike. . . . Finally, since we assumed taxes would *increase* [emphasis in the original] to fund modernization, there is no initial impact on expenditures for other government programs.[12]

In view of the downsides associated with local telephone rate and tax increases, and the disincentives rate base/rate of return regulation had on promoting network modernization and its direct pass through of such costs to consumers, the consultants noted that many states were looking to alternative methods of regulations that did not provide disincentives to infrastructure improvements.

> Increasingly, policy-makers have adopted explicit *quid pro quos* between the LEC and the state in an effort to retain the public benefits of traditional regulation within the context of a competitive market framework. States are now evaluating the contributions that an advanced telecommunications infrastructure can make to the state's economic development and competitiveness. These states are actively promoting infrastructure investment through regulatory policy. Vermont is a good example: the PUC used regulatory policy to introduce social contract regulation in 1988.[13]

Exhibit 4 provides detailed information on Vermont's social contract, *quid pro quo* regulation, and its provisions for network modernization.

Following the release of the PUC study, the Pennsylvania legislature passed Chapter 30. Chapter 30 did not adopt the *quid pro quo* form of regulation adopted in Vermont, but it did provide for price cap regulation that allowed companies to modernize their networks and assured that consumers' monthly bill for basic local service would not increase to cover the cost of such modernization. (Finding L provides detailed information of the type of alternative regulation provided for by Chapter 30.) As discussed in Finding G, however, the PUC study did provide the basis for Chapter 30 provisions concerning broadband and local exchange carrier network modernization and plan requirements.

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[12]DRI McGraw-Hill, Vol. VI, pp. XIX-21 & 22.
[13]DRI McGraw-Hill, Vol. VI, p. XX-33.

Exhibit 4

Vermont's Late 1980s Social Contract Regulation

In the 1980s, the Chairman of the Vermont Public Service Board had advocated for an alternative form of regulation with the state legislature. By the late 1980s, Vermont was considered a national leader in promoting alternative regulation and in establishing an open entry competitive policy.

In 1987, Vermont LECs operated under "social contract" regulation, referred to in the state as the Vermont Telecommunications Agreement (VTA). The VTA eliminated rate base/rate of return regulation for the New England Telephone Company. In return for allowing the company substantial freedom to offer new services under rates, terms and conditions of its choosing, the company committed itself to a 3-year local service rate stabilization plan,[a] high standards for quality of service, and investment of nearly $300 million in network modernization. Under VTA, the company committed to accelerate network modernization by accelerating installation of digital switching, fiber trunks, Signaling System # 7 (SS#7), and other modernization from 1987 through 1991.

The results of Vermont's "social contract" regulation were impressive in terms of network modernization, according to PUC consultants. The New England Telephone Company's implementation of its accelerated network modernization plan resulted in gross plant additions spending per access line in Vermont (from 1988 through 1990) that was 54 percent greater than the company's spending in other states. The company upgraded 83 central office switches from either electromechanical or analog systems to digital systems, and all of its interoffice trunks were converted to digital trunks. By the end of 1992, the company had installed roughly 13,000 miles of fiber-optic cable in the state, up from 2,000 miles in 1986. By the Fall 1992, approximately 90 percent of the company's access lines in the Vermont were served by digital switching (compared to 70 percent in New Hampshire, 75 percent in Maine, 47 percent in Rhode Island, and 56 percent in Massachusetts), and approximately 90 percent of such lines were connected to advanced SS#7 signaling networks (compared to 63 percent in New Hampshire, 75 percent in Maine, 0 percent in Rhode Island, and 17 percent in Massachusetts).

VTA resulted in improved quality as measured by a reduction in trouble reports from consumers. Some criticized VTA because it resulted in non-basic service price increases and the decline of company earnings in the state.[b]

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[a]Residential dial tone access was priced at or below its long-run incremental costs; intra-state toll rates were cut to reflect interstate rates, and basic rates were frozen from 1985 through 1991.

[b]At the end of 1993, Vermont returned to rate base/rate of return regulation. As of 2002, however, it uses alternative regulation (price cap) for its large carriers.

Source: Developed by LB&FC staff from DRI McGraw-Hill and Deloitte & Touche's, *Pennsylvania Telecommunications Infrastructure Study*, Vol. VI, pp. XX-60-61.

G. The PUC's 1993 Study Is the Basis for Key Chapter 30 Network Modernization Provisions

The PUC's multi-volume telecommunications infrastructure study served as the basis for important Chapter 30 provisions concerning company network modernization plans.

Chapter 30 Has No Specific Broadband Technology Requirements

The PUC consultants discuss a variety of broadband media in their report, including broadband using telephone copper wiring, fiber, cable, satellite, and wireless. The consultants recognized that technology was rapidly changing and, therefore, they did not promote any specific media or technology for telecommunications network modernization. Similarly, Chapter 30 does not endorse and does not require any particular type of broadband.

Chapter 30's Definition of Broadband

Chapter 30 defines broadband using the definition the PUC consultants developed for their 1993 study. According to Chapter 30, "broadband" is:

> A communication channel using any technology and having a bandwidth equal to or greater than 1.544 [mbps] megabits per second.[1]

Chapter 30 does not require a 1.544 transmission speed in more than one direction, and it does not contain any specific reference to capacity for data transmission in its broadband definition. The PUC's definition of basic universal service (see page 12) and its tariffs, moreover, only provide for voice-grade service.

Several years after Chapter 30 was enacted, the Federal Communications Commission (FCC) noted that the terms "broadband" and "broadband services" do not have well recognized definitions and have come to mean different things to different people.[2] The FCC for purposes of clarity, however, adopted specific

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[1] 66 Pa.C.S.A. §3002.

[2] *Newton's 2002 Telecom Dictionary* defines broadband as follows: 1. A WAN term. A transmission facility providing bandwidth greater than 45 Mbps (T3). Broadband systems generally are fiber optic in nature. See also Bandwidth and SONET. Contrast with Narrowband and Wideband. 2. A LAN term. A multichannel, analog, coax-based LAN. It almost defies the imagination that one would use an analog LAN for connectivity of digital computers, yet they exist. 10Broad36 is a standard for such a LAN. The real, and only, value of such an approach is that it will support multiple, simultaneous communications channels through Frequency Division Multiplexing (FDM). Some CATV (Community Antenna TeleVision) providers have upgraded their old coax systems to support broadband LAN communications. The coax systems were put in place to support multiple, downstream FDM analog TV channels. The upgrade supports bi-directional data channels for applications such as Internet access, LAN networking, and even POTS (Plain Old Telephone Service). Colleges and universities have upgraded their old CATV networks to broadband LANs, which were put in place to provide entertainment TV to the dormitories. Some theme parks have put them in place to support simultaneous audio, paging, closed-circuit TV and transaction processing.

definitions for "advanced telecommunications capability" and "high-speed services." "Advanced telecommunications capability" is any infrastructure capable of delivering data at a minimum speed of 200 kilobits per second (kbps) in each direction. A telecommunication service with over 200 kbps capability in at least one direction is considered "high-speed."[3]

Thus "broadband" or "broadband service" using the FCC's definition means any transmission service that supports a minimum of 200 kbps in either direction. The FCC's definition of "high speed" service, therefore, is:

- Four times the transmission attainable with a regular telephone line and a computer modem (200 kbps versus 56 kbps), and
- Seven times less than Chapter 30's communication transmission (1.544 mbps or 1544 kilobits per second, versus 200 kbps).

To illustrate what the different speeds mean for consumers, it is useful to consider a few ways in which consumers currently use the Internet[4] and the average time to download different activities using various media. Table 3 illustrates some of the differences.

[3]FCC, CC Docket No. 02-23 and 98-10.

[4]The 1993 PUC study and Chapter 30 contain no reference to the Internet. The United States Department of Defense (DOD) started to develop the Internet in the 1960s. In the mid-1980s, the National Science Foundation (NSF) established a civilian version of the network that had been developed for military uses when it funded the connection of academic national supercomputing centers to transmit data at a rate of 56 kbps. Subsequently, NSF funded the upgrade of such centers to support data transmission at 1.54 mbps, and in 1993, NSF upgraded the capacity of this academic network to support transmission at 45 mbps. Federal financial support for the NSF network ended in April 1995. Subsequently, the Internet expanded beyond universities and scientific sites to include business and individual users connecting through commercial Internet Service Providers and consumer on-line services.

Table 3

Average Time Required to Download Different Activities Using Internet Access Service Assuming Optimal Conditions*

Internet Functions	Dialup (56 kbps)	Cable (1-5 mbps)	DSL (1 mbps)	Wireless (1-5 mbps)	Satellite (512 kbps)
An email (5 Kilobytes)	1 sec	< 1 sec	< 1 sec	< 1 sec	< 1 sec
A basic web page (25 Kilobytes)	10 sec	< 1 sec	< 1 sec	< 1 sec	< 1 sec
A complex web page (500 Kilobytes)	90 sec	4 sec	7 sec	4 sec	15 sec
One five-minute song (5 Megabytes)	15 min	40 sec	1 min	40 sec	2 min
One movie preview (30 Megabytes)	80 min	4 min	7 min	4 min	15 min
One two-hour movie (500 Megabytes)	20 hrs	70 min	2 hrs	70 min	4 hrs

*The reader should also note that many of the media included in the table have multiple offerings with differing transmission speeds.

Source: Developed by LB&FC staff from the California Public Utilities Commission, *Final Broadband Report in Response to Senate Bill 1712*, p. 6.

Chapter 30's Universal Broadband Availability Requirement

Chapter 30 reflects the PUC consultants' definition of a broadband capable telecommunications infrastructure available to both business and residential customers when it defined "universal broadband availability." Such availability was defined as "access to broadband service by each bona fide telephone customer of a local exchange telecommunications company within five days after a request for broadband service is received by any telecommunications company."[5]

The PUC consultants' used this definition when requesting LECs to provide data for the consultants' economic analysis of accelerated deployment scenarios, and incorporated the definition in their study report for the PUC. The PUC consultants' did not equate availability with actual use of broadband service. Their definition permitted companies to develop market assumptions for provisioning service and did not assume that all customers would use the advanced telecommunications services that would be deployed.[6]

[5]66 Pa.C.S.A. §3002.
[6]See Deloitte & Touche LEC data request dated September 1, 1992.

Chapter 30's Accelerated Deployment Requirement

Chapter 30 requires that each local telecommunications company in its network modernization plan shall commit to "universal broadband availability and . . . commit to converting 100% of its interoffice and distribution telecommunication network to broadband capability by December 31, 2015."[7] As noted in Finding F, the PUC consultants recognized that network modernization on a "business as usually basis" would occur by 2030, and that LECs would need to generate the least amount of additional revenue to cover the funding gap that would occur as a result of accelerated deployment if deployment was accelerated to 2015, rather than 2020 or 2010.

Chapter 30's Requirement for Digital Switching, Fiber Optic Trunk Line Capability, and ISDN

Chapter 30 includes few specific references concerning network modernization technology. To the extent that there is specificity, however, it in large part mirrors the network modernization benchmarks used in the PUC consultants' telecommunications infrastructure report.

Chapter 30 requires that each LEC in its network modernization plan identify the company's present and projected:

> Deployment of digital switches in central offices, fiber optic trunk line capability between central offices, intelligent network signaling capability and integrated services digital network (ISDN) availability in central offices.[8]

ISDN is the only specific broadband technology cited in Chapter 30, and it is not included in the PUC consultants' network modernization benchmarks. (More detailed information on this technology can be found in Finding J.)

The American Association of Retired Persons (AARP) strongly advocated for full deployment of ISDN in the Bell Chapter 30 proceedings, even though ISDN broadband service does not always meet Chapter 30's minimum broadband transmission requirements. The Association indicated that the Commission:

> . . . should encourage rapid deployment of ISDN technology in Pennsylvania and take all necessary steps to assure that the provision of the fiber-optic broadband service is done to assure that it will be ready only as needed, at a reasonable cost, to be borne by those using it. . . . Because the primary benefit of a broadband network over the [proposed] network is greater video transmission capability, AARP urges the Commission to find that for the near-term future, broadband

[7] 66 Pa.C.S.A. §3003(b)(1).
[8] 66 Pa.C.S.A. §3003(b)(1).

services will not be needed by most Bell customers and that a narrow band ISDN network will be sufficient.[9]

During the proceedings, the PUC stated the AARP's position that Bell "rely on extending the utility of narrowband ISDN technology and its digital enhancements has merit." The Commission viewed this as a valid approach to meeting the short-term telecommunications needs of the Commonwealth, even though it was not fully consistent with Chapter 30.[10] Bell's and most company approved network modernization plans, therefore, include ISDN deployment targets.

Chapter 30's Broadband Facility Deployment Requirement

Chapter 30 includes one specific provision concerning broadband deployment into the distribution system. It requires deployment of broadband facilities in or adjacent to public rights-of-way abutting public schools, industrial parks, and health care facilities.[11]

The statute contains no specific provision for deployment to government organizations. The General Assembly may not have considered requiring such deployment since the PUC's consultants found government agencies were among those likely to have access to broadband services in 1993.

Chapter 30's Balanced Deployment Requirement

The 1993 PUC report recognized the need for a broadband capable network throughout the state. Chapter 30, therefore, directs each LEC to reasonably balance deployment of its broadband network between rural, urban, and suburban areas.

Chapter 30 does not specify what is meant by reasonable deployment, nor does it define rural, urban, and suburban. The PUC though its process of reviewing and approving LEC network modernization plans has developed operational definitions for rural, urban, and suburban. Finding J provides more information on how the PUC has operationally defined such terms for purposes of Chapter 30.

Chapter 30's Network Modernization Plan Requirements

Chapter 30 provides that company network modernization plans describe in detail the company's implementation plan for converting its communication network to one which is broadband capable by 2015, reasonably balancing deployment, and deploying broadband facilities in or adjacent to the public rights-of-way abutting public schools, industrial parks, and health care facilities. The plan must,

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[9]*Bell Atlantic–Pennsylvania Inc.'s Petition and Plan for Alternative Form of Regulation Under Chapter 30, Docket No. P-00930715;* Order entered June 28, 1994, p. 129.
[10]*Bell Atlantic–Pennsylvania Inc.'s Petition and Plan for Alternative Form of Regulation Under Chapter 30, Docket No. P-00930715;* Order entered June 28, 1994, p. 133.
[11]66 Pa.C.S.A. §3003(b)(3).

moreover, provide interim target dates (at not more than five year intervals) for deployment of the broadband network.[12]

Chapter 30's Network Modernization Plan Update Requirement

The PUC consultants determined that companies did not have experience with planning for technology deployment over lengthy (20 or 30 year) time frames, and they typically planned for deployment of new technologies in five-year timeframes. Recognizing that companies did not have experience in developing network modernization plans that would cover more than a 20-year period (1993-2015) and that technology was rapidly changing, Chapter 30 provided for companies to file updates biennially with the Commission. It specifies:

> The commission shall review and approve the plan updates as long as the updates are found to be consistent with and in furtherance of the local exchange telecommunications company's currently effective implementation plan.[13]

Chapter 30 did not contain specific measures to assess progress in attaining the network modernization benchmarks that are identified in the statute. The PUC, however, established measures to assess progress in its orders approving company plans.

[12]66 Pa.C.S.A. §3003(b)(4).
[13]66 Pa.C.S.A. §3003(b)(6).

H. The PUC Issued Network Modernization Plan Update Reporting Requirements in July 1999

The PUC adopted network modernization plan reporting requirements in its orders approving plans for Bell, Commonwealth, Frontier, Ironton, Kecksburg, and TDS Telecom. In 1999, it published reporting requirement guidelines for companies to report on their progress in modernizing their networks. PUC staff are using the 1999 guidelines to review company progress in complying with Chapter 30 and plan requirements.

PUC Network Modernization Plan Update Reporting Requirements

The PUC in its July 1995 orders approving Bell Atlantic-Pennsylvania's network modernization plan set forth measurement standards that the company would use to report on progress modernizing its network. The standards that were agreed to by the company and PUC staff include the following data:

- Digital Switching: The percent of total access lines connected to digital switching (in urban, suburban, and rural areas).
- Intelligent Network Signaling: The percent of total access lines with such capacity (in urban, suburban, and rural areas).
- Integrated Service Digital Network: The percent of total access lines whose serving switch is equipped to provide ISDN service (in urban, suburban, and rural areas).
- Interoffice Facilities on Fiber Optic or Comparable Technology: (All measures are on a statewide basis because the connections traverse urban, suburban, and rural boundaries):
  - Interoffice Facilities: The percent of total access lines where the corresponding interoffice connections have fiber optic (or other comparable technology) presence.
  - Fiber Optic Sheath Kilometers: The number of company fiber optic sheath kilometers.
  - Circuit Links: The percentage of total circuit links on fiber optic (or comparable facilities), divided by total circuit links.[1]
- Broadband availability: The percentage of access lines that are providing broadband services or have broadband available (ability to access broadband services within five days), divided by total access lines total access lines (in urban, suburban, and rural areas).

[1]Bell defines a circuit link as a physical facility that exists between any two points where signal conversion (for example, the signal is not converted from analog to digital, or the signal is not multiplied to a higher speed) does not occur.

- Broadband facilities in or adjacent to the nearest right of way or health care facilities, public schools and industrial parks: The facility is counted as having broadband availability when fiber optic facilities (or comparable technology) are located in or adjacent to the nearest right of way.

During the proceedings, the OCA stated that "measuring the percentage of access lines divided by the total number of access lines produces a meaningless result. . . . This is so because the focus is upon percentage of deployment by category." The OCA recommended that the company provide the following:

> Percentage of access lines that are providing broadband services or have broadband available [sic] (ability to access broadband service within five days), which shall be determined by dividing the total number of access lines in each category which have broadband availability by the total access lines in that category.

The PUC adopted the OCA's operational definition for Bell. [2]

When the PUC approved Bell's network modernization plan in July 1995, it did so knowing the company had withdrawn the proposal it had submitted to the Federal Communications Commission that included the same network architecture that had been discussed in the company's network modernization plan. Recognizing that the specific technology proposed by the company would likely change, the PUC directed the company to include certain additional information in the subsequent updates it filed with the Commission to respond to the following questions:

- What is the network architecture?
- How much money was being spent to build the modified network?
- What is the deployment schedule?

The Commission indicated that, while requiring a proposed deployment schedule, it was not requiring a construction schedule. The PUC also indicated it would receive the information under protective seal.[3]

PUC Biennial Update Reporting Guidelines

In July 1999, the PUC published reporting guidelines for biennial updates of network modernization plans in the *Pennsylvania Bulletin*.[4] Such requirements are found in Exhibit 5.

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[2]*Bell Atlantic–Pennsylvania, Inc.'s Petition and Plan for Alternative Form of Regulation Under Chapter 30, Docket Nos. P-00930715, P-00930715C001, P-00930715C002;* Order entered July 18, 1995, pp. 7-9.
[3]*Bell Atlantic–Pennsylvania, Inc.'s Petition and Plan for Alternative Form of Regulation Under Chapter 30, Docket Nos., P-00930715, P-0093715C001, P-0093715C002;* Order entered July 18, 1995, pp. 21-26.
[4]29 Pa.B. 3801.

Chapter 30 Biennial Update Reporting Guidelines for Local Exchange Carriers

1. The biennial updates required under 66 Pa.C.S. §3003(b)(6) should provide specific information on how many customers are buying broadband services. This information should be provided both by class of customer, that is, business, residential and institutional, and by region or geographic area within each service territory of the filing local exchange carrier (LEC).
2. Using the same quantity, class and geographic breakdown outlines in Paragraph No. 1 above, the biennial updates should report the type of broadband service being offered by the LEC.
3. The biennial updates should report present and projected upgrades to switches, fiber development, intelligent signaling, and ISDN availability.
4. The biennial updates should explain the LEC's planned architecture for its broadband network. If the LEC's architecture has been revised substantially from the last biennial update because of changing technology or market environment, the LEC should provide a specific description of the new architecture and the reasons for the change.
5. The biennial updates should project the LEC's deployment schedule.
6. The biennial updates should identify broadband availability in or adjacent to public rights-of-way abutting health care facilities, public schools, and industrial parks. For reporting purposes, "public schools" shall include all public school districts within the Commonwealth of Pennsylvania, all intermediate units, all charter schools, and all area vocational-technical schools.
7. The biennial updates should describe how the LEC is meeting the commitment made in its Chapter 30 network modernization plan to achieve reasonably balanced broadband availability to urban, suburban, and rural areas within its service territory consistent with each company's approved Chapter 30 plan.
8. Consistent with the reporting obligations contained in 52 Pa. Code §§73.1—73.9, for LEC's providing telephone service with over 50,000 access lines or which have grossed intrastate operating revenues in excess of $20 million per year, the biennial updates should provide the level of capital investment being made to develop the broadband network. Specifically, information regarding the historical, current, and projected levels of capital investment in the network as well as updated depreciation report information should be provided. A LEC may coordinate its reporting obligations required by Chapter 73 to comply with this paragraph so long as the LEC complies with the notification requirement contained in 52 Pa. Code §73.8(6).
9. For LEC's providing telephone service with less than 50,000 access lines or which have gross intrastate operating revenues less than $20 million per year, the biennial updates should contain information similar to what is required under 52 Pa. Code §§73.4 and 73.8. These small LECs may meet with Commission staff to determine the precise information to be provided so as to balance the Commission's specific informational needs with the LEC's need to minimize any administrative burdens created by the production of this information.
10. The biennial updates should report on joint ventures.
11. The biennial updates should report on the status of products and services that enhance the quality of life for those with disabilities.
12. As provided in the order approving these guidelines, the acceptance and approval of a network modernization plan and subsequent biennial reports required by Chapter 30, will not eliminate the obligation of a LEC to provide any other reports required in any other chapter of the Public Utility Code or in the Commission's existing regulations.
13. Proprietary information will be protected so as not to impact adversely competitively sensitive information in the biennial updates by allowing a LEC to file under seal when appropriate; provided, however, that the Office of Consumer Advocate, the Office of Small Business Advocate, and the Office of Trial Staff will have access to this competitively sensitive information subject only to the public advocates entering into appropriate proprietary agreements with the producing LEC.

Source: 29 Pa.B. 3801.

The Pennsylvania Telephone Association has objected to parts of the PUC's network modernization update requirements because they add to or modify company commitments in existing plans. The Association noted, for example, that Chapter 30 does not include any provisions for approving or rejecting a plan based on the number of customers buying broadband services (i.e., Guideline 1) or capital expenditure (Guidelines 8 and 9).

In highlighting problems with the PUC's guidelines, the PTA noted that they do not take into account the differences in the company network modernization plans the PUC approved. The PTA further indicated that the Commission should measure company compliance with Chapter 30 based on the specific network modernization commitments set forth in each company's PUC-approved plan.

LB&FC staff met with PUC staff concerning the PUC's reporting guidelines. They indicated that the request for proprietary information on customers using broadband was not to assess compliance with Chapter 30's requirement for universal broadband availability by 2015. Rather such a request was merely to provide information for the Commission. PUC staff also indicated that broadband affordability is not addressed in Chapter 30 and, therefore, is also not a factor in assessing company compliance with Chapter 30 and PUC-approved NMP requirements.

The LB&FC staff reviewed the PUC's published guidelines. We found that they do not provide LECs with guidance as to how they are to measure and report on their progress in meeting Chapter 30's requirement for commitment to "universal broadband availability" by 2015. Guideline 5 directs the LECs to project their deployment schedules, but it does not link such deployment to the LECs' broadband availability commitments and measures in their approved network modernization plans, nor does it request that they provide an explanation of how such measures are calculated.

One consequence of this is that several companies have submitted significant amounts of data to the PUC based on the published guidelines, but the required information does not lend itself to determining if the company is, or is not, meeting its Chapter 30 broadband availability requirements. (Finding I provides additional information on NMP updates that have been submitted, their review time, and status.) The published guidelines have other limitations for purposes of assessing company compliance with Chapter 30's universal broadband availability requirements. They:

- Do not take into account that a single LEC access line can be provisioned to provide more than one type of broadband service that could meet Chapter 30's statutory and plan requirements (i.e., 1.54 mbps transmission speed with service provisioned in five days.)

- Do not take into account that companies lease broadband available access lines that meet Chapter 30's statutory and plan requirements to competitive local exchange carriers.

- Do not distinguish between information that is required to assess compliance with Chapter 30 and approved plan requirements and more general information concerning the status of telecommunications services in Pennsylvania.

- Do not take into account that some of the requested broadband data does not meet Chapter 30's broadband transmission speed requirements (i.e., broadband services with transmission speeds below 1.54 mbps).

Chapter 30 and TA-96 are separate and distinct state and federal statutes. When publishing its Chapter 30 network modernization plan update guidelines, the PUC indicated that it needed the information it was requiring companies to report in part because of the PUC's responsibilities in implementing TA-96. The 1996 federal statute recognizes the importance of access to the Internet and provides for monitoring of its deployment. Section 706 of the federal statute directs the Federal Communications Commission and the states to encourage the deployment of advanced telecommunications capability in the United States.

Several national studies have resulted from the efforts of federal agencies to monitor citizen access to the Internet. The national studies operationally define broadband and broadband availability differently than Chapter 30. As a result, while such studies are informative, they cannot be used to assess the extent to which LECs have complied with Chapter 30's requirements, implemented their network modernization plan commitments, and accelerated deployment of a broadband capable network. Based on our review of the national studies, moreover, the PUC's 1999 guidelines do not provide data required for the PUC to replicate the national studies for Pennsylvania.

National Efforts to Monitor Broadband Deployment

As a result of TA-96, the FCC routinely gathers and publishes statistical data on the latest "deployment" of high-speed connections to the Internet within the United States. The FCC gathers the statistical data from providers subject to its jurisdiction, including telephone, cable, and wireless providers.[5]

FCC Data. Access to high-speed Internet service continues to increase, according to the FCC. In June 2003, the FCC reported that high-speed lines (i.e., those with a transmission speed in excess of 200 kbps in at least one direction, and

[5]The PUC does not regulate cable and wireless providers in Pennsylvania. Nationwide, cable providers are the dominant providers of high-speed services.

seven times less than Chapter 30's requirement) connecting homes and small businesses to the Internet increased to about 17.4 million lines as of December 31, 2002, from about 11 million a year earlier. About 10.8 million of the 17.4 million lines were advanced service high-speed lines that provide services at speeds exceeding 200 kbps in both directions.

The FCC also noted that high-speed service subscribers were reported present in 99 percent of the most densely populated decile[6] of zip codes at the end of 2002 and 60 percent of the least densely populated decile (compared to 43 percent one year earlier). For zip codes ranked by median family income at the end of 2002, high-speed subscribers were reported present in 98 percent of the top one-tenth of zip codes and in 74 percent of the bottom one-tenth of zip codes (compared to 63 percent one year earlier).

FCC data operationally defines "broadband" differently than Chapter 30, and they operationally measure the dispersion of broadband networks differently than Chapter 30. FCC data do not measure the "availability" of "broadband" services. Rather, they count the number of providers that have at least one user of high-speed services within a zip code—not the number of zip codes where broadband technology is available.

FCC data present other analytic problems for assessing compliance with Chapter 30. FCC broadband tracking relies on postal zip codes. Postal zip codes are mailing addresses. They are not geographic areas.[7, 8]

U.S. Census Bureau Current Population Survey Data. In addition to the FCC monitoring the deployment of high-speed services, the U.S. Department of Commerce (USDC) tracks Americans' use of the Internet, access to computers, and broadband. In its February 2002 report, *A Nation Online: How Americans Are*

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[6]There are nine deciles, and they divide a frequency distribution into ten equal parts. A frequency distribution is a technique for systematically arranging a collection of measures on a given variable to indicate the frequency of occurrence of the different values of the variable. To conduct this part of its analysis of broadband deployment, the FCC developed a frequency distribution for zip codes arraying them based on their population density.

[7]For additional information on post zip codes and the many problems with linking them to local jurisdictions such as counties or townships, or voting districts, see the LB&FC's *Status of State and County Efforts to Implement the PA Voter Registration Act*, pp.14-28.

[8]Zip codes, moreover, are not standardized measures, and thus they are not measures that can be use to compare performance. Some of the problems with using FCC zip code data analytically can be seen in the following example. Two companies (Company A and Company B) cover the same amount of territory and the same number of households, but they differ in the number of postal zip codes in their service territory. Company A with 100,000 customers may have 10 customers receiving broadband service—one each in the 10 zip codes covered by the company. Thus, Company A has 100 percent broadband deployment if zip codes are the basis for the analysis. Company B also has 100,000 customers with 50,000 receiving broadband services in 10 of the 20 postal zip codes it serves. In this example, Company B's broadband deployment is only 50 percent, even though the number of households receiving broadband service is significantly greater than Company A's. Broadband service may be available to all of the households in all of Company B's service territory. Only customers in one-half of the postal zip codes served by Company B, however, may have decided to take advantage of such availability.

Expanding Their Use of the Internet, USDC relied on U.S. Census Bureau Current Population Survey Data to assess such use. The report noted that as of September 2001, about 54 percent of the nation's population was online (about 57 percent in Pennsylvania), and that nationwide there were nearly two million new Internet users per month. About 80 percent of Americans access the Internet through dial-up service, 13 percent through cable modem and 7 percent through DSL. The report noted an increasing number of Americans are accessing the Internet through broadband services (using the FCC definition of 200 kbps in one direction).

Rural household use of the Internet is comparable to that for the nation as a whole. The U.S. Department of Commerce noted that 54 percent of all persons nationwide have access to the Internet, compared to 53 percent of those living in rural areas, 49 percent of those living in central city areas, and 57 percent of those in urban (but not central city) areas.[9]

Report on Behalf of the Federal-State Joint Conference on Advanced Services. The Florida Public Service Commission Office of Market Monitoring and Strategic Analysis has also examined broadband availability. In October 2002, it released *Broadband Services in the United States: an Analysis of Availability and Demand*, which it prepared on behalf of the Federal-State Joint Conference on Advanced Services. The report noted that broadband (i.e., the FCC's definition of high speed--200 kbps in at least one direction) service is widely available in the United States, with overall U.S. broadband availability approximately 80 percent. The report noted availability is lower in rural areas, however, the National Exchange Carrier Association (NECA)[10] companies estimate that 65 percent of rural lines would be broadband capable in 2002.

In arriving at its national estimates, the Florida Commission report noted that 64 percent of all American households have broadband availability from the

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[9]The "urban" category includes those areas classified as being urbanized (having a population density of at least 1,000 persons per square mile and a total population of at least 50,000) as well as cities, villages, boroughs (except in Alaska and New York), towns (except in the six New England states, New York, and Wisconsin), and other designated census areas having 2,500 or more persons. A "central city" is the largest city within a "metropolitan" area, as defined by the Census Bureau. Additional cities within the metropolitan area can also be classified as central cities if they meet certain employment, population, and employment/residence ratio requirements. "Urban, not central city" equals the "urban" category less the "central city" category. All areas not classified by the Census Bureau as urban are defined as rural and generally include communities of less than 2,500 persons.

[10]The Federal Communications Commission (FCC) formed NECA in 1983 to perform telephone industry tariff filings and revenue distributions following the breakup of AT&T. Since 1983, it has administered the FCC's access charge plan. The association provides an array of services to the telecommunications industry.

six largest cable companies. In 2001, moreover, 78 percent of households could obtain DSL service (one of several types of broadband service) from Regional Bell Operating Companies.[11]

The report indicated that while broadband availability is high (and has been increasing), many consumers have not yet chosen to subscribe to the service. Nationwide only 10 to 15 percent of the households have chosen to subscribe to broadband services. The report noted that:

- 78 percent of the homes passed by the six largest cable providers have access to broadband, but only 11 percent of their customers subscribed in 2002.

- Over 82 million homes served by Regional Bell Operating Companies had DSL available, but only 4.9 percent of such homes subscribed in 2002.[12]

Just as broadband availability is lower in rural areas, rural areas have lower customer penetration rates. The report noted that in some rural areas, 4 percent of households with cable modem availability subscribe to the service, 3 percent of households with DSL availability subscribe, 2 percent with wireless availability subscribe and 1 percent subscribe to T 1 lines. The report noted that the low penetration rate in rural areas warrants further study, and suggested that it is likely due to demographics (such as household income, persons aged 65 and older, etc.).

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[11]One large state recently attempted to assess the number of residents in the state with high speed Internet access (using the FCC's definition). In 2002, the California Public Utility Commission in response to direction from its state legislature conducted a study to determine whether California should expand its low-income telephone subsidy program and require all carriers to provide high speed Internet access as part of their "basic service" package. The California Commission found that high-speed Internet access was available to 73 percent of the state's residents, but only 13-17 percent of those having a choice elected to subscribe to it. The Commission also found that there was little public interest in subsidizing broadband services through telephone surcharges. Its staff estimated that adding high-speed Internet access to basic service would quadruple the price of low cost basic service to all customers and result in a 3.96 percent surcharge to all other customers to provide the service to low-income households. See California Public Utilities Commission, *Final Broadband Report in Response to Senate Bill 1712*, 2002.

[12]The comparable figures for all Verizon companies are 32 million homes, with 4.4 percent subscription as of the first quarter 2002.

I. Three LECs Have Thus Far Submitted Network Modernization Plan Updates to the PUC

Most companies have not yet submitted network modernization plan updates to the PUC. The majority of the companies only had their network modernization plans approved in 2001 (see Exhibit 2). The PUC, moreover, when publishing its network modernization reporting requirements in the *Pennsylvania Bulletin* stated:

> The smaller LECs are encouraged to meet with Commission staff before they file their biennial reports to develop more precisely what information is actually needed, and, at the same time, to minimize any administrative burdens that the reporting requirements will place on the smaller LECs.[1]

The smaller companies have been working with Commission staff. They have provided information to the Commission as part of this process, but have not formally filed network modernization plan updates, according to PUC staff.

Bell Atlantic-Pennsylvania, Commonwealth, and United/Sprint have submitted plan updates. Exhibit 6, shows the number of updates submitted and the results of the PUC's review of the companies' updates. The exhibit also shows that the PUC typically requires two years from the date of submission before accepting or rejecting a company's network modernization plan update.

Exhibit 6

Company Network Modernization Update Submissions

Company	Date Submitted to the PUC	Date Acted on by the PUC
Bell Atlantic PA (Verizon PA)	First Update: June 28, 1996	Approved September 16, 1998
	Second Update: June 3, 1998	Approved February 10, 2000
	Third Update: June 14, 2000	Rejected May 2002; ALJ recommended decision issued March 2003; Commission decision pending
	Fourth Update: Due June 2002. Submission pending Commission decision concerning issues raised in its May 2002 order.	
Commonwealth	First Update: December 20, 2001	Approved May 23, 2003
United/Sprint	First Update: March 19, 2001	Under review as of June 2003

Source: Developed by LB&FC staff from information provided by the PUC.

As shown in Exhibit 6, the PUC approved Bell's First and Second Update and voted to reject the company's Third Update in an order entered in May 2002.

[1]29 Pa.B. 3801, Footnote 4.

In rejecting Bell's Third Update, the PUC relied upon its view that Bell had previously committed to provide service at 45 Mbps as part of its NMP and in subsequent modifications and supplements to the NMP and that Bell could not unilaterally revise its NMP. The PUC also explained that DSL service offerings do not consistently achieve a 1.544 Mbps standard. At the time, one of the Commissioners dissented, noting "the Majority had *sua sponte* revised Verizon's [network modernization plan] commitment." He further noted: "the Majority has lost sight of the approved NMP and now seeks to extend it well beyond its original intent and word."

In late August 2002, the PUC adopted a Joint Motion from two Commissioners permitting the company to submit a Third Supplement[2] to its NMP by mid-September 2002. In its Third Supplement, the company commits to deploy fiber (or comparable technology) deeper into the distribution network to remote terminals. The Third Supplement commits the company to making available upon customer request broadband services of at least 45 mbps under the same deployment schedule as contained in the existing PUC-approved NMP at commercially reasonable times (i.e., within 40--60 days). The supplement also delineates the company's Digital Subscriber Line (DSL) deployment plans at various speeds (i.e., at speeds both below and above 1.544 mbps). The company plans to accelerate DSL deployment in rural areas to reach 45 percent of rural lines by 2006. DSL is only one of several of the company's broadband service offerings available in its rural exchanges. In addition the company, proposes to close the residential and business DSL availability gap within each of the urban/suburban/rural categories to no more than 10 percent by 2007.

On October 11, 2002, the Office of Consumer Advocate (OCA), the Office of Trial Staff (OTS) and MCI WorldCom Network Services, Inc. filed responses. The PUC determined that the responses raised several factual issues and suggest that the Commission require more information as well as clarification.

The PUC, therefore, referred the matter to the Office of Administrative Law Judge to address issues related to the company's petition. Such proceedings were to result in a recommended decision by January 31, 2003. The ALJ's recommended decision, however, was postponed until late March 2003. The PUC is not expected to issue its opinion on this matter prior to summer 2003.

Both Commonwealth and United/Sprint have provided additional information to PUC staff in response to the updates they submitted. In the case of United/Sprint, for example, the company met with PUC staff in May 2001 and provided multiple responses to data requests between June 27, 2001, and March 27, 2003. The PUC reports it is awaiting receipt of other requested data from United/Sprint as of June 2003.

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[2]The network modernization plan for the company consists of the three related documents: the plan submitted by the company with revisions required by the PUC and two supplements.

J. LECs Have Accelerated the Deployment of a Broadband Capable Telecommunications Infrastructure

It is not yet possible to determine if Chapter 30 has achieved its goal of full deployment of a broadband capable network. Nonetheless, local exchange carriers' Chapter 30 network modernization plans, the updates that have been submitted to the PUC, and more recent supplemental information clearly show that companies have accelerated the deployment of broadband technology in their telecommunications networks consistent with Chapter 30's broadband technology requirements and their PUC-approved network modernization plans. For some companies, accelerated deployment of such technology started to take place following the enactment of Chapter 30 in anticipation of the PUC approving their Chapter 30 alternative form of regulation petition and their network modernization plan.

LB&FC staff reviewed the available information on company deployment of technologies to provide for a broadband telecommunications network. We compared it to the:

- PUC's consultants projected technology deployment schedules without Chapter 30's accelerating deployment (shown in Exhibit 3).
- PUC's consultants projected deployment with Chapter 30 accelerating deployment to 2015 (shown in Exhibit 3).
- Company's projected deployment targets in approved Chapter 30 alternative regulation petitions and network modernization plans (NMPs).

We found:

- *Digital Switching*:[1] Bell Atlantic deployed this broadband technology throughout its telecommunications network five years earlier than it

[1]Digital switching, intelligent network signaling, and interoffice fiber optic transport are essential technologies required for a broadband capable telecommunication network. They were identified by the PUC's consultants in 1993 and are specifically referred to in Chapter 30. Each technology is explained later in this finding.

would have if Chapter 30 had not accelerated deployment[2] (i.e., full deployment was achieved by 2000 rather than as projected by the PUC consultants for 2005). Other large and mid-sized companies that did not have digital switching in place prior to 1993 had such switching deployed throughout their networks by the time their NMPs were approved (i.e., three to nine years after Chapter 30 was enacted).

- *Intelligent Network Signaling*: Bell and Commonwealth have met Chapter 30's and their NMP targets for deploying this broadband-capable technology throughout their networks. GTE North deployed the technology more than 15 years earlier (2002 versus 2020) than anticipated by PUC consultants in 1993. Many of the smaller companies, including all of the Small Company Group A and B companies, had deployed such technologies throughout their networks by the time their NMPs were finally approved by the PUC.

- *Interoffice Fiber Optic Transport*: By 2000, Bell had achieved 100 percent deployment of this broadband-capable technology--five years earlier than would have occurred if Chapter 30 had not accelerated such deployment. Commonwealth also achieved full deployment six years earlier than would have occurred without Chapter 30. By 2000, moreover, GTE North had achieved 94 percent deployment, with 100 percent deployment projected for 2005—15 years earlier than would have occurred if Chapter 30 had not accelerated broadband technology deployment.

- *Deployment to Schools, Industrial Parks, and Health Care Facilities:* By 2000, Bell had met its NMP target and deployed fiber beyond the nearest right-of-way, as required by Chapter 30, to as far as the serving pole, pedestal or manhole of 2,240 schools, 465 industrial parks, and 955 health care facilities. Commonwealth also met its NMP target and achieved 100 percent deployment to such facilities by 2000. United/Sprint, moreover,

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[2]The LB&FC's analysis is not intended to suggest that Chapter 30 alone is the cause of companies accelerating deployment of broadband technologies. Chapter 30, however, has played an essential role in providing for accelerated deployment. Some might take the position that the accelerated deployment of a broadband capable network would have occurred without Chapter 30. It is not possible to know if companies would have made the additional financial investments required for accelerated deployment of broadband network technologies without Chapter 30. However, if the General Assembly had not enacted Chapter 30, thus assuring that the PUC would move away from rate base/rate of return methodologies and adopt alternative forms of regulation, added costs associated with accelerated deployment of broadband technologies may have been passed on directly to consumers in the form of higher basic telephone rates. Consumers would have had their basic rates increased even if they did not want to use the advanced services available through the broadband capable network. Consumer opposition to such increases would likely have slowed the pace of deployment of a broadband capable telecommunications network technologies. Chapter 30, moreover, provided certain protections for consumers to prevent their having to pay in their basic rates for the accelerated broadband technologies for advanced services they do not wish to use. We, therefore, have used the phrase "if Chapter 30 had not accelerated deployment" when describing company progress in deploying broadband technologies throughout their networks and comparing it to the PUC consultants' anticipated deployment under the PUC's rate base/rate of return depreciation schedules.

had made considerable progress toward such deployment by the time it submitted its network modernization plan. By 1998, the company had deployed to 71 percent of its schools, 76 percent of industrial parks, and 82 percent of health care facilities.

- *Universal Broadband Availability*: Chapter 30 operationally defines "universal broadband availability' as access to 1.54 mbps broadband service within five days of a bona fide request by a telephone customer. Chapter 30 does not anticipate such deployment until 2015 in view of the costs and financial risks associated with it. In 1995, the PUC accelerated the deployment targets for Bell when it approved the company's NMP, and the company has thus far met all of its universal broadband availability deployment commitment targets (i.e., 20 percent in rural, urban, and suburban exchanges by 1998). The PUC noted when it accelerated Bell's Chapter 30 targets that it had doubled and tripled the rate of deployment in rural Pennsylvania in the first ten years of deployment. As of 2002, at least 39 percent of the company's access lines in rural exchanges have broadband services available with transmission speeds at least equal to 1.544 mbps within five days, 74 percent in urban exchanges, and 50 percent in suburban exchanges.[3] Based on our review of more recent data, the company has already met or exceeded its PUC accelerated targets for 2004 (i.e., 50 percent in rural, urban, and suburban exchanges by the end of 2004) in its urban and suburban exchanges.[4]

  Bell likely will meet the PUC's accelerated target for broadband availability in rural exchanges by end of 2004. In approximately a one-year period, the company increased its deployment of DSL, one of several different types of broadband service the company offers, from 20 percent to 40 percent of its rural exchanges. Moreover, the 2002 broadband availability data understate the extent to which the company has a broadband-capable network currently in place. For example, the data for business lines used in calculating the above percents are based on counts of lines in areas where spare fiber exists to provide service. Such line counts, however, do not include all business lines that currently have broadband services (at least 1.544 mbps) because they do not count broadband lines where spare fiber is not available in the distribution area. Our analysis of the information and data the company provided to the PUC indicates that this problem of undercounting broadband lines disproportionately affects rural exchanges.

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[3]These measures include DSL service available to residential customers at 1.544 mbps (not DSL service below 1.544 mbps) and business lines with spare fiber currently present in the distribution area.

[4]In a PUC May 2002 order, it found that Bell's NMP biennial update is inconsistent with its view that Bell had previously committed to provide service at 45 mbps. The PUC also explained that DSL service offerings do not consistently achieve a 1.544 mbps standard.

All companies do not measure their progress in meeting their commitments to universal broadband availability in the same way. For some companies, availability is based on access to T 1 line service (or its cable or fiber equivalent) within five days. In view of Chapter 30's technology neutral provisions, the availability of such a service is reasonable to assess company compliance with its commitment to Chapter 30 and broadband availability standard. Using T 1 lines as measures of broadband availability, Commonwealth, for example, has thus far significantly exceeded the broadband availability targets in its approved NMP.

The accelerated dispersion of broadband available technologies by Pennsylvania companies does not mean that every telephone customer is actually using, or for that matter wants, broadband services that meet Chapter 30's definition. Chapter 30's definition of broadband provides for transmission speeds that are significantly greater than the Federal Communication Commission's (FCC) definition of "high speed" services. T 1 lines, moreover, are currently far outside the financial reach of most family budgets (typically over $500 per month). Broadband services at very high transmission speeds, moreover, have been declared competitive for at least one company for purposes of Chapter 30, and the statute's imputation standard prohibits the company from pricing such services below the cost of providing them. Unlike other areas where excess capacity might result in a business pricing its product below costs to obtain greater market share, Chapter 30 prevents such "bargain" pricing.

- *Rural Deployment*: We are unable to assess the extent to which Chapter 30 has increased the availability of broadband services in rural areas since 20 of the carriers the PUC designated as rural for purposes of Chapter 30 provide service in 23 mostly urban counties, according to the Center for Rural Pennsylvania's classification of counties using 1990 US Census data.[5] The absence of consistent operational definitions of the term "rural" in Chapter 30 plans also prevents any meaningful comparison of the performance of individual companies with respect to rural deployment.

The following discussion provides more detailed information on the status of individual companies' progress in deploying technology required for a broadband capable telecommunication network and Chapter 30's other network modernization broadband-related requirements, including specific information from company NMPs. We also have provided brief explanations of the technologies companies are required to address in their Chapter 30 NMPs. Detailed information on how the PUC defined rural for purposes of Chapter 30 is also provided.

[5]The Center for Rural Pennsylvania recently revised its classification of counties based on 2000 US Census data. Throughout this report, we have relied on the Center's classifications that rely on 1990 US Census data since such classifications were in place when Chapter 30 petitions and plans were developed and approved.

Digital Switching

The switches in a telecommunications network allow wireline telephone users to communicate by routing a telephone call from the calling party's location to the called party's location. Switches (i.e., those of local exchange carriers and other telecommunications providers, such as interexchange carriers) interconnect to form networks. The switching component of a telecommunications network provides the ability to interconnect a large number of end users without having to establish individual point-to-point redundant networks.

In 1993, the PUC consultants and Chapter 30 recognized the need to convert all of the existing telecommunications network analog switches (which can transmit voice and facsimile) to digital switching (which can transmit voice, video, and data). ALLTEL, Bell, GTE, and United/Sprint did not have digital switching systems in place throughout their networks when the PUC consultants conducted their study and Chapter 30 was enacted (see Exhibit 3). In 1993, the PUC consultants, moreover, recognized that all of the recently upgraded switches of smaller companies were not broadband compatible.

Exhibit 7 shows that almost all of the large and mid-sized local exchange carriers (LECs) had digital switching systems in place by the time the PUC approved their network modernization plans. Bell, which was the first company to submit an NMP, did not have 100 percent digital switching in place when it submitted its NMP immediately after Chapter 30 was enacted.

By 2000, Bell had achieved its NMP goal of 100 percent digital switching by the end of 2000.[6] In other words, Bell deployed digital switching five years sooner than would have occurred if Chapter 30 had not accelerated broadband technology deployment (i.e., 2000 compared to 2005).

We have provided information for the Small Company Group A and B companies in Appendix D. As shown in Appendix D, all of the small companies had 100 percent digital switching when their NMPs were submitted. They, however, planned to upgrade their switching systems to provide for transmission at 1.544 mbps since all of the small companies did not have central office switching capable of supporting 1.544 mbps.

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[6]See *Verizon Pennsylvania, Inc., Petition and Plan for Alternative From of Regulation Under Chapter 30 2000 Biennial Update to Network Modernization Plan, Docket No. P-00930715;* Order entered May 15, 2002, p.6, footnote 2 for the PUC's summary of Bell's achievements in meeting various network modernization goals.

Exhibit 7

Digital Switching

Company	% Deployment as of NMP Approval Date	Projected Date for 100% Deployment
ALLTEL	100%-1998	NA
Bell Atlantic-Pennsylvania (Verizon-PA)	51%-1994	100%-2000
Commonwealth	100%-1996	NA
Five Frontier Companies	100%-1997	NA
GTE North (Verizon North)	100%-2000	NA
Ironton	100%-1997	NA
Kecksburg	100%-1997	NA
Small Company Group—Plan A	See Appendix D.	See Appendix D.
Small Company Group—Plan B	See Appendix D.	See Appendix D.
TDS Telecom Mahoney & Mahantango	100%-early 1997	100%-end of 1997 when upgrades are completed
TDS Sugar Valley	100%-1997	NA
United/Sprint	100%-1998	NA

Source: Developed by LB&FC staff from PUC-approved network modernization plans.

Intelligent Network Signaling Capacity Availability

Telecommunications network services depend not only on switching, but also on signaling/intelligence. Signaling:

> . . . is the process of sending information between disparate parts of the network in order to set up, control, and maintain call connections between different calling parties. The intelligence and control functions within a network are the systems and processes which interpret and process calls, so that calling features are activated correctly and calls are routed correctly.[7]

Telecommunications networks with Intelligent Network Signaling Capacity allow companies to offer customers an array of advanced telecommunications services, including CLASS (Custom Local Area Signaling Services) services, such as call trace, call blocking, priority call, return call, and select forwarding. Intelligent Network Signaling networks also allow for permanent local number portability, which is considered key to promoting local telephone competition, and currently required by TA-96. (See Finding P).

[7]Deloitte & Touche and DRI/McGraw-Hill, Vol I, p. I-77.

In order for customers who subscribe to CLASS services to fully benefit from such subscription, all company networks must have such capacities. At the end of 1992, approximately 84 percent of the network access lines in Pennsylvania and 59 percent of central offices had access to the systems (i.e., Signaling System 7--SS7)[8] that allow for such services, according to the PUC's consultants.

Exhibit 8 shows that most of the companies had Intelligent Network Signaling Capacity or were rapidly acquiring it at the time the PUC approved their network modernization plans. Many smaller companies, including all of the Small Company Group A and B companies (see Appendix E), achieved 100 percent deployment of Intelligent Network Signaling Capacity in their networks by the time their network modernization plans were submitted to the PUC--four or more years following Chapter 30's enactment.

Early plan submitters such as Bell and Commonwealth did not have intelligent network signaling capacity fully deployed throughout their networks when they submitted their plans to the PUC. Bell achieved its NMP goal of 100 percent deployment in 1994. Commonwealth and ALLTEL[9] have also achieved their NMP full deployment goals, and United/Sprint appears on target to meet its 2004 NMP target.

When GTE submitted its second[10] network modernization plan in 2000, it reported that it had Intelligent Network Signaling Capacity available through 92 percent of its network, and it projected 100 percent deployment by 2002. As Exhibit 3 shows, in 1993 the PUC's consultants did not project the deployment of such technology for GTE until 2020, even with Chapter 30 accelerating deployment of this technology. In other words, GTE introduced Intelligent Network Signalling Capacity more than 15 years earlier than anticipated (by 2002 rather than 2020). Such acceleration may not be due to Chapter 30. More than likely, the acceleration is due to the merger of GTE's parent company with Verizon, and the conditions established for the Commonwealth's Attorney General agreeing to the merger. The Memorandum of Understanding with the Attorney General indicated CLASS services comparable to Bell's will be available to all GTE customers and within 18 to 24 months of the parent companies' merger, 80 to 85 percent of the access lines that do not have the services will. Remaining access lines will have the service within 30 months of the merger.

[8]SS7 or Common Channel Signalling System 7 provides out-of-band, packet switched communications and information transfer between network components to allow for call processing.
[9]ALLTEL reported it had completed such deployment in a 2003 survey conducted by the Pennsylvania Telephone Association.
[10]The PUC had rejected GTE North's initial (1998) Chapter 30 petition and plan submissions.

Exhibit 8

Intelligent Network Signaling Capacity Availability

Company	% Deployment as of NMP Approval Date	Projected Date for 100% Deployment
ALLTEL	83%-1998	100%-2000
Bell Atlantic-Pennsylvania (Verizon PA)	97%-1994	100%-1994
Commonwealth	48%-1996	100%-1998
Five Frontier Companies	Not Reported	100%-1998
GTE North (Verizon North)	92%-2000	100%-2002
Ironton	A majority of the company's traffic uses such signaling. The only traffic not using such technology is that which terminates with another LEC and two Interexchange carriers.	NA
Kecksburg	100%-1997	NA
Small Company Group—Plan A	See Appendix E.	See Appendix E.
Small Company Group—Plan B	See Appendix E.	See Appendix E.
TDS Telecom Mahoney & Mahantango	0%-1997—Upgrades planned for end of 1997, however, the percentage of deployment depends on the technical compatibility of connecting carriers.	100%-2015
TDS Sugar Valley	100%-1997	NA
United/Sprint	90.8%-1998	100%-2004

Source: Developed by LB&FC staff from PUC-approved network modernization plans.

Exhibit 8 also underscores how company networks are interdependent. Local exchange carriers are dependent upon technology being deployed in other company networks with which they link in order to be able to fully deploy related services to their interested consumers.

Integrated Services Digital Network (ISDN) Availability

When Chapter 30 was enacted, there was considerable interest in ISDN (see the discussion on pages 50 and 51). ISDN[11] allows customer access to two 64 kilobits per second digital voice or data channels and one 16 kilobits per second signaling channel. Such signals can be carried over copper distribution facilities

[11]ISDN is a standard and integrated digital network that allows users to simultaneously send voice, data and video over multiple multiplexed communication channels from a common network interface.

that are less than 18,000 feet in length and are connected to a digital switching system with appropriate hardware and software.

Even though ISDN does not always[12] meet Chapter 30's transmission speed standard (1.544 mbps), Chapter 30 specifically references this technology, and the PUC recognized it as an interim step in the evolution toward broadband capable telecommunications networks that meet Chapter 30's broadband service requirements. For this reason, the PUC required companies to include it in their network modernization plans.

As shown in Exhibit 9, ISDN was only available on a limited basis from companies submitting their network modernization plans to the PUC prior to 1998. Bell only had 25 percent deployment in 1994. By 1995, however, the company fully implemented ISDN for all of its access lines--five years earlier than projected in its approved plan. In response to our inquiry, the company reported that ISDN (PRI) with 1.5 mbps transmission is currently available throughout its territory. The company, however, has not included such services in its counts of broadband lines submitted to the PUC.

Currently, Commonwealth also has ISDN (at and below 1.54 mbps) available to a majority of its access lines. Data for June 2001 indicated that it had already achieved its 2008 NMP goal for such deployment.

Ironton recently reported to the PTA that ISDN is available on request. Kecksburg and TDS companies reported the service is available throughout their territories. Frontier reported to PTA that ISDN is available for some, but not all, of its small companies. This is not surprising since the technologies have been surpassed by others.

Companies that submitted their network modernization plans after 1998 were reluctant to implement a technology that had been surpassed by others. As shown in Appendix F, one small company noted it could make the technology available to 100 percent of its customers (if required), but the company did not believe this would be in the public interest. As a result, small companies that submitted their plans after 1998 committed only to providing equivalent technologies, or did not specifically commit to ISDN. Small companies, moreover, often noted that they would require 60 days to respond to customer orders for the service. By April 2002, when the PUC approved GTE's (Verizon North) network modernization plan, the PUC did not require the company to provide a plan for deploying what some now characterize as an "outmoded" broadband technology.

[12]ISDN can be secured in bulk (23 channels with a raw data rates of 144 kbps plus a single 64 kbps channel) and provide 1.5 mbps transmission speed. This service is referred to as ISDN PRI (Primary Rate Interface).

Exhibit 9

Integrated Services Digital Network (ISDN) Availability

Company	% Deployment as of NMP Approval Date	Projected Date for 100% Deployment
ALLTEL	82%-1998	100%-2005
Bell Atlantic-Pennsylvania (Verizon-PA)	25%-1994	100%-2000
Commonwealth	0%-1996	100%-2015[a]
Frontier Companies	Not Reported	100%-2000
GTE (Verizon North)	ISDN Not Addressed	ISDN Not Addressed
Ironton	100% on a trial basis-1997	Not Reported
Kecksburg	100% on a trial basis 10%-1997	100%-2015[a]
Small Company Group—Plan A	See Appendix F.	See Appendix F.
Small Company Group—Plan B	See Appendix F.	See Appendix F.
TDS Telecom Mahoney & Mahantango	0%-early 1997	100%-end of 1997
TDS Sugar Valley	0%-1997	100%-2003
United/Sprint	65-78%-1998	100%-2008

[a]The company noted it may need up to 60 days to process some customer orders. As the service is more widely deployed, there will be fewer situations requiring 60 days to fill an ISDN order.

Source: Developed by LB&FC staff from PUC-approved network modernization plans.

Interoffice Fiber Optic (or Equivalent) Transport

In addition to switching and intelligent signaling, services provided by telecommunications networks depend on transport. The transport component of the telecommunications network connects the various switches so that calls may be transmitted from one location to another.

The quality and type of network traffic that can be transmitted from one location to another is directly influenced by the underlying transport facilities. In general, copper facilities are characterized by the lowest bandwidth capabilities.[13] Coaxial cable and microwave radio facilities have significantly greater bandwidth capabilities, while fiber optic facilities have even greater bandwidth. In the early 1990s, fiber was increasingly being deployed in the interoffice circuits, according to PUC consultants.

[13]The term "bandwidth" refers to the range of frequencies a particular media can transmit. The greater the bandwidth, the more information can be transmitted.

Exhibit 10 shows that all of the large and mid-sized companies did not have full interoffice fiber deployment at the time their network modernization plans were submitted. Bell achieved its goal of 100 percent deployment by 2000--five years earlier (2000 versus 2005) than would have occurred if Chapter 30 had not accelerated broadband technology deployment. Commonwealth achieved full deployment of interoffice fiber by 1996--six years earlier than would have occurred if Chapter 30 had not accelerated broadband deployment. GTE also accelerated its deployment of interoffice fiber trunk lines. By 2000, it had achieved 94 percent deployment of fiber optic trunk lines, with 100 percent projected for 2005. In other words, the company has significantly accelerated such deployment, and will achieve 100 percent deployment about 15 years earlier than it would have if Chapter 30 had not accelerated the deployment of broadband technology.

Exhibit 10 and Appendix G shows that by the time smaller companies submitted their NMPs, they were likely to have 100 percent interoffice fiber deployment. As shown in Exhibit 10 and Appendix G, some of these companies have only one central office or one point of connection with another company.

Exhibit 10

Interoffice Fiber Optic (or Equivalent) Trunk Lines

Company	% Deployment as of NMP Approval Data	Projected Date for 100% Deployment
ALLTEL	75%-1998	100%-2005
Bell Atlantic-Pennsylvania (Verizon-PA)	58%-1994	100%-2000
Commonwealth	100%-1996	NA
Five Frontier Companies	Not Reported	Not Reported
GTE North (Verizon North)	94%-2000	100%-2005
Ironton	Not Reported	Not Reported
Kecksburg	Not Reported	Not Reported
Small Company Group—Plan A	Appendix G.	Appendix G.
Small Company Group—Plan B	Appendix G.	Appendix G.
TDS Telecom Mahoney& Mahantango	100% to the point of connection with the connecting company-1997	NA
TDS Sugar Valley	100% to the point of connection with the connecting company-1997	100%-2010
United/Sprint	88.5%-1998	100%-2003

Source: Developed by LB&FC staff from PUC-approved network modernization plans.

Deployment Into the Distribution System by 2015

Deployment of broadband into the "neighborhood" distribution system is a monumental task. To appreciate this, it helps to consider that in 1995 there were 130 million phone lines in the United States using 650 million miles of copper wire. As one commentator put it: "considering that planet Earth is only about 93 million miles from the sun, this is a hefty amount of wire in anybody's book."

The cost of replacing existing telephone copper wires with fiber, moreover, is significant. One 1987 study reported such costs would be ten times the cost to replace every telephone switch in the United States with digital equipment. Similarly, the 1993 PUC study noted that approximately one-half of the total capital investment required for deployment of a broadband capable infrastructure is driven by the deployment of fiber optic technology into distribution areas, and the added costs associated with accelerated deployment are primarily driven by the cost of upgrading the feeder and distribution portion of the network.

Deployment to Schools, Industrial Parks, and Health Care Facilities. Even though Chapter 30 accelerated the deployment of broadband technologies, it did not anticipate that broadband services would be fully deployed "into the neighborhood" until 2015. Chapter 30, therefore, initially focused deployment on selected sites of public interest. Such sites include public schools, industrial parks, and health care facilities.

In order for a company's network modernization plan to be approved by the PUC, it must target broadband facility deployment in or adjacent to the public rights-of-way abutting public schools, including the administrative offices supporting public schools; industrial parks; and health care facilities.

Exhibit 11 shows Bell and Commonwealth planned to have full deployment in or adjacent to the public right-of-way of public schools, industrial parks, and health care facilities by 2000. Both companies have met their full deployment targets. United/Sprint, moreover, had made considerable progress with its deployment to schools, industrial parks, and health care facilities by the time the PUC approved the company's NMP.

The PUC required Bell to develop an inventory (and submit it for public review) of public schools, industrial parks, and health care facilities in its service territory. Bell identified 2,240 public schools, 465 industrial parks, and 955 health care facilities as a result of the PUC's requirements, and established an internal deployment standard for such facilities that was higher than Chapter 30's standard. By 2000, the company had deployed broadband facilities beyond the nearest right of way to the serving pole, pedestal or manhole of each facility.

Exhibit 11

Distribution Facilities—Broadband Facilities Adjacent to Public Schools, Industrial Parks, and Health Care Facilities.

Company	% Deployment as of NMP Approval Date	Projected Date for 100% Deployment
ALLTEL	Public School: 30%-1998 Industrial Parks: 50%-1998 Health Care Facilities: 33%-1998	100%-2015 100%-2015 100%-2015
Bell Atlantic-Pennsylvania (Verizon PA)	Public Schools: 40%-1994 Industrial Parks: 80%-1994 Health Care Facilities: 30%-1994	100%-2000 100%-2000 100%-2000
Commonwealth	Public Schools: 69%-1996 Industrial Parks: 70%-1996 Health Care Facilities: 79%-1996	100%-2000 100%-2000 100%-2000
Frontier Companies	Available—first priority is to satisfy customer demand as it arises	Available—first priority is to satisfy customer demand as it arises.
GTE North (Verizon North)	Will deploy within five days of request	NA
Ironton	Available—first priority is to satisfy customer demand as it arises	Available—first priority is to satisfy customer demand as it arises.
Kecksburg	100%-1997	NA
Small Company Group—Plan A	See Appendix H.	See Appendix H.
Small Company Group—Plan B	See Appendix H.	See Appendix H.
TDS Telecom Mahoney & Mahantango	Schools: 0%-1997 Industrial Parks: 0%-1997 Health Care Facilities: 0%-1997	100%-2000 100%-2000 100%-2005
TDS Sugar Valley	Schools: 0%-1997 Industrial Parks: 0%-1997 Health Care Facilities: 0%-1997	Schools: 100%-1999 Industrial Parks: 100%-2005 Health Care Facilities: 100%-2005
United/Sprint	Schools: 71.4%-1998 Industrial Parks: 75.6%-1998 Health Care Facilities: 82.0%-1998	100%-2008 100%-2008 100%-2008

Source: Developed by LB&FC staff from PUC-approved network modernization plans.

Bell is the only company the PUC required to inventory (and submit for public review) the list of institutions to which broadband facilities would be deployed. Several of the PUC-approved plans provide little detail on the actual number of institutions covered under Chapter 30.

Ironton and Kecksburg reported to the PTA that they have fully deployed to these facilities, and Frontier companies reported they are on target to achieve 70 percent deployment in 2003.

ALLTEL and other small companies also reported to PTA that they have met or are on schedule to meet their deployment targets for 2002. A few small companies, however, were unable to provide information on deployment to schools, industrial parks, and health care facilities at the time of the PTA survey.

Universal Broadband Availability. Chapter 30 requires each LEC in its approved network modernization plan to "commit to universal broadband availability" by December 31, 2015, and it defines "universal broadband availability" as "access to broadband service by each bona fide telecommunications customer of a local telecommunications company within five days after a request for broadband service is received by any telecommunications company;" with "broadband" defined as "any technology having a bandwidth equal to or greater than 1.544 megabits per second."[14] The statute also requires company NMPs to include "interim target dates at not more than five-year intervals" for such deployment. The interim targets for company commitments to broadband availability contained in PUC-approved plans are found in Exhibit 12 and Appendix I.

The company-approved NMPs we reviewed include each company's commitment to Chapter 30's universal broadband availability without reference to a specific technology. The one exception is the TDS companies' plan, which references a specific technology.

As shown in Exhibit 12, there are differences in the interim target dates for broadband availability that have been approved by the PUC. The Frontier companies' approved plan, which involved a settlement agreement, does not have interim target dates included. The companies have, however, reported to PTA that they are on target to meet their 70 percent broadband availability commitment for 2003.

Bell, Frontier, TDS Telecom, GTE, and most of the Small Company A and B (see Appendix I) approved plans only include target dates for broadband service provision within five days. The other companies' NMPs include target dates for broadband availability with service provisioning within five days and sixty days.

Exhibit 12 also shows that companies were at different starting points in terms of broadband availability (1.54 mbps within five days) when they submitted their plans. Early NMP submitters such as Bell, Commonwealth, and the TDS Telecom companies were unable to provide any broadband services within five days when they submitted their plans to the PUC. In contrast, United/Sprint could deploy broadband service within five days to 44 percent of its lines when the company submitted its plan in the late 1990s.

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[14] 66 Pa.C.S.A. §3002.

Exhibit 12

Commitment to Universal Broadband Availability Within Sixty Days and Within Five Days

CAUTION TO THE READER: THE REPORTED "PERCENTS" ARE NOT OPERATIONALLY DEFINED IN THE SAME WAY ACROSS ALL OF THE COMPANIES. THEY, THEREFORE, CANNOT BE USED TO COMPARE ONE COMPANY'S PERFORMANCE AGAINST ANOTHER COMPANY'S PERFORMANCE.

Company	% Deployment as of NMP Approval Date	Projected Date for 100% Deployment	
		Sixty days	Five days
ALLTEL[a]	*Sixty days:* 99%-1998 *Five days*: 5%-1998	100%-2015	8%-2000 35%-2005 65%-2010 100%-2015
Bell Atlantic-Pennsylvania (Verizon PA)	0%-1994		20%-1998 50%-2004 63%-2008 95%-2013 100%-2015
Commonwealth[b]	*Sixty days: 55%-1996* *Five days*: 0%-1996	60%-1998 80%-2003 90%-2008 100%-2013	3%-1998 10%-2003 35%-2008 65%-2013 100%-2015
Five Frontier Companies[c]	20%-1997		100%-2013
GTE North (Verizon North)	22.8%-2000		35%-2005 65%-2010 100%-2015
Ironton	*Sixty days*: 40%-1997 *Five days*: 10%-1997	47%-1998 72%-2003 76%-2008 86%-2013 100%-2015	21%-1998 27%-2003 52%-2008 79%-2013 100%-2015
Kecksburg	*Sixty days*: 30%-1997 *Five days*: 5%-1997	60%-1998 80%-2003 90%-2008 100%-2013	16%-1998 22%-2003 47%-2008 74%-2013 100%-2015
Small Company Group—Plan A	See Appendix I.		See Appendix I.
Small Company Group—Plan B	See Appendix I.	See Appendix I.	See Appendix I.
TDS Telecom[d] Mahanoy & Mahantango and Sugar Valley[e]	0%-1997		1%-1997 5%-1998 10%-1999 25%-2000 50%-2005 75%-2010 100%-2015

Exhibit 12 (Continued)

Company	% Deployment as o NMP Approval Date	Projected Date for 100% Deployment	
		Sixty days	Five days
United/Sprint	*Sixty days*: 72%-1998 *Five days*: 44%-1998	80%-2003 88%-2008 96%-2013 100%-2015	53%-2003 69%-2008 92%-2013 100%-2015

[a]Also committed to providing single line service to all but one percent of its customers (i.e., customers who are 2-party of which most own part of the line) within 5 days.

[b]The company also committed to respond to requests by new customers or existing party line customers to convert to single line service whenever feasible by accomplishing the provision of service within five days.

[c]Requests for new and existing customers to upgrade to a single party service typically will be accommodated within five days except for Frontier Communications of Breezewood, Inc., which will upgrade its facilities sufficient to meet the standard in 1997.

[d]Company indicates deployment is greater than 1 Mbps in or adjacent to public rights of way.

[e]There is one difference in the broadband deployment schedule for the two companies. TDS Sugar Valley projects 20 percent deployment by 2000 rather than the 25 percent for Mahanoy & Mahantango that is shown in the exhibit.

Source: Developed by LB&FC staff from PUC-approved plans.

In addition, the Commission established different requirements for broadband availability after five years for individual companies. For example, as shown in Table 4, Bell initially proposed a minimum deployment floor of 7 percent in 1998 and 24 percent in 2003.

Table 4

Bell Atlantic-Pennsylvania's Initially Proposed Broadband Availability Target Dates

Exchange Categories	1994	1998	2003	2008	2013	2015
Rural	0%	7%	24%	63%	95%	100%
Urban	0	7	24	63	95	100
Suburban	0	7	24	63	95	100

Source: Re: Bell Atlantic-Pennsylvania, Inc.'s Petition and Plan for Alternative Form of Regulation Under Chapter 30, Docket Nos. P-00930715, P-00930715C001, and P-00930715C002, Order entered June 28, 1994, p.135.

The PUC modified Bell's deployment target date for 1998, increasing it from 7 percent to 20 percent deployment for rural, urban, and suburban exchanges. It further accelerated Bell's broadband deployment, requiring 50 percent deployment by 2004. Based on the PUC established targets, the company was required to achieve approximately 30 percent deployment five years from when the PUC approved the company's plan.

The PUC also modified the broadband availability targets for Commonwealth. Based on the data shown in Table 5, the PUC required Commonwealth to have broadband available to about 9 percent of its access lines five years (2002) after plan approval (1997).

Table 5

Commonwealth Telephone Company's (CTC) Broadband Availability Target Dates

		1998	2003	2008	2013	2015
Broadband Availability Within 60 Days	Proposed by CTC	57%	60%	70%	85%	100%
	Commission Disposition	60%	80%	90%	100%	100%
Broadband Availability Within 5 Days	Proposed by CTC	0%	5%	25%	50%	100%
	Commission Disposition	3%	10%	35%	65%	100%

Source: Petition of Commonwealth Telephone Company for an Alternative Regulation and Network Modernization Plan and Petition of Commonwealth Telephone Company for Exemption and/or Suspension of the Interconnection Requirements of Section 251 of the Telecommunications Act of 1996, Docket Nos. P-00961024 and P-00961081, Order entered January 17, 1997, p. 148.

Exhibit 12 and Appendix I provide each LEC's commitment to broadband deployment by 2015. Using the information in the exhibit, it is possible to assess a company's starting point in terms of broadband availability and review the company's progress in relation to its starting point. They, however, cannot be used to compare one company's performance against that of another. Such comparisons cannot be made since different operational definitions are reflected in the PUC-approved network modernization plans.

The wide variation in the "percents" of broadband availability reported in various plans and biennial updates prompted LB&FC staff to review with companies and the PUC how Chapter 30's "broadband availability" requirement is operationally measured when assessing progress. We found that the PUC has not developed a standard operational definition to assess compliance with Chapter 30's "broadband availability" commitment and it has not formally required companies, other than Bell, to explain their broadband availability calculations. We identified at least four different operational definitions.

Four Operational Definitions of Broadband Availability Approved by the PUC. Chapter 30 does not require that companies count broadband lines in a particular way; however, to compare and analyze company performance consistent counting is required over time and across companies. We found that companies are not using the same operational definitions. Some companies, including Commonwealth, have operationally defined "broadband availability" based on the availability of a T 1 line (or its cable or fiber equivalent) within five days of a customer's request (i.e., total T 1 lines/total residential and business access lines[15] multiplied by 100). (We should note that while expressed as a "percent," such performance indicators are not true percentages where "100 percent" is equivalent to full broadband deployment into the telecommunication network. They are ratios,[16] and therefore, they can be expected to exceed 100 percent.) Operationally measuring "broadband availability" in this way is consistent with Chapter 30's requirement for 1.544 mbps service within five days and its technology neutrality. As a way of measuring commitment to broadband availability as required by Chapter 30, this operational definition is a reasonable indicator of the extent to which a company's network, and therefore its "customers," have available broadband services within five days. Moreover, while T 1 lines are not within the financial reach of the average consumer household, Chapter 30 does not address broadband service affordability, though it does address basic voice service affordability (see Finding L).

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[15]The PUC in its order approving Bell's network modernization plan and the subsequent plans it approved required reporting of percents of broadband availability based on total access lines. A single customer might use thousands of access lines. Customer counts, therefore, are not representative of the broadband capability of the telecommunication infrastructure that Chapter 30 seeks to modernize. The PUC order and its 1999 update reporting guidelines do not operationally define access lines.

[16]The type of line counted in the numerator (T 1 lines or their cable or fiber equivalent) is not included in the lines counted in the denominator (certain access lines). As a result, the reported data are not percentages.

The TDS companies' plan uses a different operational definition of broadband availability. It states: "presently, the Company can (generally) provide up to 1.5 Mbps service to a customer's premise equipment. The primary physical restriction is the capability of the distribution cables to carry this digital signal. However, the company cannot anticipate what technologies may be available in the future." In tables providing its projected targets for broadband deployment, the companies indicated such deployment is "in or adjacent to public Rights of Way," and the deployment percents are for specific technologies (i.e., HDSL and ADSL), which are described as "interim." (See the discussion below for information on these technologies.)

Some companies, including United/Sprint, use estimates of a variety of broadband services to derive the broadband availability percents included in their NMP and plan updates. Such broadband includes T 1 lines, ISDN, and other types of broadband services.

In the case of Bell, the company reports on its progress in meeting its Chapter 30 commitment to broadband availability by calculating the percent of its total access lines that are providing broadband service or can have broadband service available within five days. Such percents are based on counts of broadband capable lines that include:

- resident lines qualified for DSL in offices where DSL is offered and where loops are not longer than 12,000 feet,[17] thus allowing for the provisions of 1.544 mbps transmission, and
- business lines with access to at least two available spare fibers in the distribution area.

Bell's way of measuring broadband availability is conservative since its measures do not include business lines where broadband service is actually provided in distribution areas where spare fiber is not available. (Actual fiber lines that are in use without spare fiber have not been included in the counts used to calculate the percents of broadband availability to preclude any possibility of double counting[18] of broadband available access lines, according to the company.) Bell's measures are also conservative since they include in the denominator (used to calculate the percent of access lines that have broadband availability), but do not include in the numerator lines qualified to provide broadband services that are leased by

[17]In its 2000 Biennial Update, the company initially included DSL lines with loops up to 18,000 feet. Lines with loops between 12,000 and 18,000 feet were subsequently removed from the reported data that were included in the PUC's May 2002 order rejecting the company's 2000 Biennial Update because they do not always provide 1.544 mbps downstream transmission. As technologies improve this may change.

[18]Double counting might occur because the report with counts of spare fiber in a distribution area and the report with broadband lines in use cannot be readily unduplicated. Currently, manual counting of a significant volume of records would be required to provide an unduplicated count of the data from the two sources.

competitors. According to the PUC and the FCC, competitors now use approximately 1 million of the company's lines.

From a measurement perspective, several problems arise with the use of such conservative operational definitions and their derived percents to analyze company progress in meeting Chapter 30's broadband availability targets. One result of the company's conservative approach to measuring broadband availability is that actual users of broadband services are not always included in the company's reported percent of broadband availability. The company's broadband availability percent, therefore, is by definition an undercount.

Additionally, the company's approach to measuring broadband availability can result in the reported percents of broadband availability declining from one NMP plan update period to another. Such a decline routinely occurs when there is no spare fiber in the distribution area (since all broadband business lines in a distribution area without spare fiber are excluded from the count of broadband lines). This problem presented itself in the 2000 Biennial Update. [19] As a result, data for wire centers where broadband services were actually available and in place in 1998 were not reflected in the 2000 broadband availability data. LB&FC staff analyzed the data the company provided to the PUC and found rural wire centers are more likely to have their broadband lines undercounted than urban and suburban centers. In the 2000 NMP update, such undercounting of broadband availability occurred with data for:

- 2.56 percent of the company's urban wire centers,
- 10.78 percent of the suburban wire centers, and
- 24.48 percent of the rural wire centers.

Given the way the company currently measures "broadband availability," moreover, there is no mathematical way for the company ever to report that 100 percent of its access lines have broadband available. This problem results from Bell's broadband availability percents including Chapter 30 broadband available lines used by competitors in the denominator but not in the numerator it uses to calculate the percent of total access lines that have broadband available.

Bell's operational counts of broadband availability also understate the extent to which the company's network has broadband services available that meet Chapter 30's broadband requirements. The company's broadband availability percents do not include any Chapter 30 broadband service (other than DSL) provided over copper wires, unless indirectly captured in the business line data (such as business

[19]In reviewing Bell's 2000 NMP Update, PUC staff found and questioned why 18 percent of the company's wire centers experienced a decline in broadband availability from the previous update, with the decline ranging from 1 percent to 82 percent. In August 2001, Bell provided the PUC with information on the reasons for the undercounts.

ISDN services at 1.544 mbps.). Bell's percent of access lines that have broadband available do not include lines that can receive ISDN 1.54 mbps service, which is available throughout its network, or the approximately 60 percent of lines that can receive T 1 service within five days.

LECs' Progress in Meeting Chapter 30's Universal Broadband Availability Requirement. ALLTEL's approved NMP indicates that more that 20 percent of its lines have broadband available. It recently reported to the Pennsylvania Telephone Association (PTA) that it currently is in advance of its broadband availability commitment.

Bell is the only company the PUC required to report on broadband availability separately for its urban, suburban, and rural exchanges. The company's performance is, therefore, discussed below.

Based on its operational definition of broadband availability, Commonwealth's NMP Update indicates that the company is significantly in advance of its commitment to broadband availability deployment. Commonwealth achieved 51 percent broadband availability within five days in 2001, compared to the company's projected target of 35 percent in 2008.

In reports to the PTA, Ironton and Kecksburg indicated they are in advance of their 2003 target, and Frontier companies indicated they are on target to meet their goal of 70 percent deployment by 2003.

GTE's NMP was approved by the PUC in April 2002. It, therefore, has not submitted an NMP Update. As required by the FCC, however, the company submits certain information on its DSL services to the FCC and to the states in which it operates. The company's NMP submission indicates that broadband meeting Chapter 30's requirements is available to 23 percent of its access lines. This percent is based on business and residential access lines with DSL available within 12,000 feet of the central office. Based on the information contained in documents submitted to the PUC as part of its merger, the company's broadband availability may actually be higher. The FCC merger report document higher broadband availability than the NMP. This is due to the report including DSL lines between 12,000 and 18,000 feet from the central office (that meet the FCC's broadband definition, but not Chapter 30's) and 1.5 mbps business lines that meet Chapter 30's requirements but are not included in the NMP broadband availability percents.

Most small companies have not yet formally filed NMP updates with the PUC. Information reported to the Pennsylvania Telephone Association, however, indicates they too are meeting or exceeding their broadband availability deployment targets.

Using its definition of broadband availability, United/Sprint was able to provide such services to approximately 44 percent of its customers when the company submitted its network modernization plan to the PUC in 1998. Currently, consistent with its NMP, it can provide such service to over 50 percent of its customers based on information from its NMP Update.

Broadband Availability in Rural Areas

The PUC operationally defined urban, suburban, and rural for purposes of Chapter 30 when approving company network modernization plans. When the PUC reviewed Bell's initial network modernization plan submission, the company categorized its exchanges as urban, suburban, and rural based on two broad criteria:

- tariff density cell categories and
- some U.S. Census data.

Bell classified its tariff Density Cells 1 & 2 as urban exchanges, Density Cell 3 as suburban, and Density Cell 4 as rural. Since Density Cells 1 & 2 include only the cities of Philadelphia and Pittsburgh, the company proposed, based on U.S. Census data, to add Allentown, Altoona, Bethlehem, Harrisburg, Lancaster, Reading and Scranton to the urban category.[20] The PUC did not accept Bell's use of U.S. Census data to categorize these exchanges as urban because of its concern that this might delay broadband deployment in these areas. The PUC, therefore, required Bell to report urban, suburban, and rural deployment based on the density cell classifications in the company's approved tariffs.[21]

In subsequent Chapter 30 proceedings, the PUC categorized the service territories of all other carriers as rural for purposes of Chapter 30. (At the time they submitted their network modernization plans, the companies were also requesting the PUC designate them as rural carriers for purposes of implementing portions of TA-96.) As a result, 20 carriers designated as "rural" for purposes of Chapter 30 provide services in 23 mostly urban counties (as defined by the Center for Rural Pennsylvania) such as:

- Allegheny
- Beaver
- Berks
- Blair
- Bucks
- Cambria
- Carbon
- Centre
- Chester
- Cumberland
- Dauphin
- Erie
- Lackawanna
- Lancaster
- Lehigh
- Luzerne
- Lycoming
- Mercer
- Montgomery
- Northampton
- Washington
- Westmoreland
- York

[20]Using Bell's proposed classification approximately 37 percent of the company's access lines were in urban areas, 37 percent in suburban areas, and 26 percent in rural areas.
[21]*Bell Atlantic–Pennsylvania, Inc.'s Petition and Plan for Alternative form of Regulation Under Chapter 30, Docket No. P-00930715*; Order entered June 28, 1994, pp. 135—144.

Appendix J contains a listing of incumbent local carriers and the counties in which they operate.

The operational definitions of rural in the PUC-approved network modernization plans are not related to U.S. Census definitions. The PUC's definitions of rural, moreover, are not consistent with the definitions used by the Center for Rural Pennsylvania. As discussed above, the PUC relied on definitions relevant to company tariffs and other designations which are not consistent with these sources.

Since there is no standard definition of "rural" used in Chapter 30 approved plans, it is not possible to draw conclusions about the extent to which Chapter 30 has achieved its goal of balanced deployment in urban, suburban, and rural areas of the state. It is also not possible to compare the extent to which different carriers are deploying more aggressively in rural areas since at least 20 of the rural carriers for purposes of Chapter 30 operate in mostly urban counties.

The Office of Consumer Advocate has pointed out problems with the PUC's operational definition of rural for Bell's network modernization plan. The OCA, moreover, has advocated for the PUC to revise its classification of urban, suburban, and rural exchanges for the Bell plan. Implementation of such a recommendation would require the company to revise all of its baseline data for all exchanges (and exchange classifications). If such revisions are not practical, the company and the public would lose the ability to assess company progress in implementing Chapter 30's broadband availability goals. Such efforts to address the problem for one company, moreover, do not resolve the larger Chapter 30 "rural" definitional problem that exists in other PUC-approved plans.

Currently, the Center for Rural Pennsylvania has a contract with The Pennsylvania State University to analyze rural Pennsylvania's telecommunications infrastructure. The study is to provide a detailed assessment of the available infrastructure, planned telecommunications system upgrades, and demand in rural areas. As of June 2003, the study was still underway.

Bell's Rural Broadband Deployment. In 1995, the PUC required Bell to categorize its access lines for purposes of measuring progress in meeting its broadband availability targets by urban, suburban, and rural areas. When it established Bell's broadband availability target dates, the PUC recognized that such targets were "floors." In its order increasing Bell's broadband availability target for 1998 and establishing a target for 2004, the PUC stated:

> Based on the record herein, we will require Bell to deploy its network by 1998 in minimally 20 percent rural, suburban, and urban areas. The floor for deployment in 2004 for rural, suburban, and urban areas shall increase to 50 percent.

It went on to note:

> In the first 10 years of deployment, this modification would double and triple the rate of deployment in rural Pennsylvania. Chapter 30 requires no less, and Bell is, hereby directed to file a plan modified accordingly.[22]

Bell's approved plan, therefore, states:

> The Company plans to reasonably balance deployment of its broadband network among rural, urban and suburban areas by setting uniform deployment targets for broadband availability in each area. These targets will be regarded as floors so that the Company can exceed them to satisfy specific customer demand requirements.[23]

Bell has met its PUC's accelerated broadband availability targets using the PUC's definitions for the three categories. Table 6 shows the PUC established targets for 1998 and 2004, and the company's performance as of June 30, 2001 reported by the PUC in its order entered in May 2002 rejecting the company's 2000 biennial update.

Table 6

Bell Atlantic-Pennsylvania's Broadband Availability Targets and Performance as of June 30, 2001

	1998	2004	June 30 2001
Rural	20%	50%	33%
Urban	20	50	61
Suburban	20	50	56

Source: Developed by LB&FC staff from the PUC-approved plan and the PUC Order *Re: Verizon Pennsylvania, Inc., Petition and Plan for Alternative Form of Regulation Under Chapter 30 2000 Biennial Update to Network Modernization Plan*, Docket No. P-00930715, Order entered May 15, 2002, p.15.

LB&FC staff requested and Bell agreed to provide updates to its broadband availability commitments as of late 2002. As of 2002,

- at least 39 percent of its rural access lines,
- at least 74 percent of the urban lines, and

[22]*Bell Atlantic–Pennsylvania, Inc.'s' Petition and Plan for Alternative form of Regulation Under Chapter 30, Docket No. P-0093715, P-0093715C001, P-00930715C002*; Order entered June 28, 1994, pp. 146 and 147.
[23]Bell's PUC approved petition and plan, p. 29.

- at least 50 percent of the suburban lines are broadband available (using the operational definition described above).[24]

These broadband availability percents are based on blended counts with 2001 and 2002 data because some of the data are based on labor intensive, manual counts of lines, and they have not been adjusted to correct for the problem of undercounting described above. They show that despite the problems associated with undercounting, especially undercounting in rural wire centers, the company is meeting its PUC accelerated broadband availability targets in urban, suburban, and rural areas.

As part of the ongoing proceedings resulting from the PUC's rejection of Bell's 2000 Biennial Update, the Office of Consumer Advocate (OCA) requested certain information on the company's deployment of DSL—one of many types of broadband available from the company. The OCA is concerned about the limited public information that is systematically available about broadband availability resulting from Chapter 30. The OCA was successful in obtaining information about Bell's deployment of DSL in Pennsylvania. The information obtained by the OCA indicates that in 2001, Bell had DSL capability in 20 percent of the company's rural exchanges, 80 percent of its suburban exchanges, and 100 percent of its urban exchanges. As of early February 2003, DSL capability was available in 40 percent of the company's rural exchanges, 90 percent of the suburban exchanges, and 100 percent of the urban exchanges.[25] In other words, DSL capability in rural exchanges doubled in approximately a one-year period. Such data suggest that the company is on target to meet its PUC's accelerated broadband availability target for rural areas for the end of December 2004.[26]

The ability of Bell to meet its broadband availability commitment targets within all areas should not be surprising in view of the extent to which it has expanded its deployment of fiber in its network—another measure of broadband deployment progress required by the PUC in 1995 (see page 53). In official reports to the FCC, Bell reported having 10,086 fiber sheath miles[27] in 1994 and 19,486 such miles in 2001—more than a 90 percent increase in a seven- year period.

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[24]The difference in the June 30, 2001, and the 2002 data for suburban exchanges is due to the 2001 data being projected from 1999 actual counts and the 2002 data relying on 2001 end of year counts of business lines with access to spare fiber. Such data are, as noted earlier, subject to undercounting.

[25]The reader should not be confused by the differences in the reported percents since they are substantially different measures. The data requested by the OCA are percents of rural, suburban, and urban exchanges that have DSL capability—not percents of broadband available access lines in such areas.

[26]In a PUC May 2002 order, it found that Bell's NMP biennial update is inconsistent with its view that Bell had previously committed to provide service at 45 mbps. The PUC also explained that DSL service offerings do not consistently achieve a 1.544 mbps standard.

[27]Sheath miles of fiber are the total number of miles of fiber cables used. The sheath mileage is equal to or greater than the route mileage. A given cable sheath may contain widely varying numbers of fiber depending on the applications and associated requirements.

Types of Broadband Being Deployed

Chapter 30 does not require provision of a specific broadband technology, and several of the PUC-approved network modernization plans (Frontier, Ironton, and Kecksburg) do not identify any technology (other than ISDN, which does not always meet Chapter 30's minimum transmission speed).

When the PUC approved Bell's plan in 1995, it recognized that the company would alter plans for deploying the technology outlined in the approved plan (see page 54). The PUC, therefore, directed the company to provide information on the types of broadband service it was providing in its biennial update submissions. Bell's 2000 biennial update indicates that it offers several types of broadband services, which are reflected in their broadband availability measures. These include:

- Switched Multimegabit Data Service (SMDS) at speeds up to 34 mbps.
- Frame Relay at speeds up to 45 mbps.
- Asynchronous Transfer Mode (ATM) at speeds ups to 155 mbps.
- High Capacity Service at rates of 1.544 mbps and 45 mbps.
- Digital Subscriber Line (DSL).
- Customer Fiber Optic Rings.

Many of the companies (ALLTEL, Commonwealth, GTE, Plan A Small Companies, Plan B Small Companies, TDS Telcom, and United/Sprint) plan to initially provide some form of Digital Subscriber Line (DSL) service, according to their PUC approved plans. DSL is a high-speed connection that uses the same wires as a telephone line.

There are many different types of DSL service. The most frequently referenced in the approved plans are ADSL and HDSL.

- *Asymmetric DSL (ADSL)* has a download speed greater than its upload speed, thus its name. It works this way because most Internet users look at, or download, much more information than they send, or upload. Currently, ADSL has been limited by FCC regulations to a maximum of 1.5 mbps. Theoretically, it can achieve a maximum of up to 7 mbps.

- *High bit-rate DSL (HDSL)* provides rates comparable to a T 1 line (about 1.5 mbps). HDSL receives and sends data at the same speed, but it requires two lines that are separate from the normal phone line.

ADSL and HDSL are both distance-sensitive technologies. The rate of speed of the service is dependent on the distance from the customer's equipment and the

DSL Access Multiplexer (DSLAM) that receives the customer connection. A DSLAM takes the connections from many customers and aggregates them onto a single, high-capacity connection to the Internet. Currently, the maximum distance for ADSL is 18,000 feet, and for HDSL 12,000 feet. The closer the customer is to the DSLAM, moreover, the higher the speed achieved. Technology, however, is constantly improving, and such constraints may not be present in 2015. Moreover, just as ISDN was "the technology" everyone desired in the early 1990s, the technologies consumers desire and companies are currently deploying may be considered obsolete in 2015.

K. Most LEC Services Designated by the PUC as Competitive Were Previously Non-Jurisdictional Services or Already Deregulated

Chapter 30 allows local exchange companies to submit petitions for alternative or streamlined regulation and identify in such petitions all services that the company seeks to have classified as competitive for purposes of Chapter 30.[1] In the final debates prior to the passage of Chapter 30, one key legislator set forth his understanding of Chapter 30 "competitive services." He indicated they include "those services for which there are a number of providers in a particular geographic region . . . ." He also described Chapter 30 "noncompetitive services" as "those services which only local phone companies can provide . . . ."[2]

Such understandings are consistent with a prudent layperson's understanding of what competitive and non-competitive telecommunications services are. As described below, however, what Chapter 30 means when it refers to competitive (and non-competitive) services is not consistent with how a prudent layperson thinks about competitive activities. Prior to the PUC classifying a local exchange carrier's (LEC)"noncompetitive services" as a Chapter 30 "competitive service" in response to the LEC's Chapter 30 petition, most such "services" were:

- not telecommunications services; and/or
- outside of the regulatory jurisdiction of the PUC; and/or
- previously deregulated for purposes of rate setting by the PUC; and/or
- available through multiple competing providers.

Chapter 30 Requirements for LEC Competitive Service Designation

Chapter 30 defines a competitive service as:

> a service or business activity determined to be competitive under this chapter or any telecommunication service determined by the commission to be competitive under this chapter.[3]

The statute authorizes a local exchange telecommunications company (LEC) to petition (initially as part of the company's Chapter 30 alternative regulation petition and subsequently following the PUC's approval of the initial petition) to determine whether the company's telecommunications service or business activity is

[1]66 Pa.C.S.A. §3003.
[2]Senate Legislative Journal, June 23, 1993, p. 1199.
[3]66 Pa.C.S.A. §3002.

competitive, and it authorizes the PUC to reclassify services from "non-competitive" to "competitive."

Chapter 30 further sets forth the criteria for the PUC to use when making its determination(s). These include at a minimum findings of:

- ease of market entry, including the existence and impact of cross-subsidization, right-of-way, pole attachments and unavoided costs;
- presence and viability of other competitors, including market shares;
- ability of competitors to offer those services or other activities at competitive prices, terms and conditions;
- availability of like or substitute services or other activities in the relevant geographic area;
- effect, if any, on protected services;
- overall impact of the proposed regulatory changes on the continued availability of existing services;
- whether the consumers of the service would receive an identifiable benefit from the provision of the service or other activity on a competitive basis;
- degree of regulation necessary to prevent abuse or discrimination in the provision of the service or other activity; and
- any other relevant factors which are in the public interest.[4]

Chapter 30 also includes several other provisions to prevent unfair competition when LECs provide Chapter 30 competitive services. It requires that LECs:

- not subsidize provision of competitive services with revenues from non-competitive services;
- unbundle basic service functions on which the competitive service depends;
- make the basic service functions separately available to any customer under nondiscriminatory tariff terms and conditions, including price, that are identical to those used by the LEC and its affiliates in providing its competitive service; and
- not price their competitive services (or those of their affiliates) below the rates charged others for any basic service functions used by the LEC to provide the competitive services. [5]

[4]66 Pa.C.S.A. §3005(a)(1).
[5]66 Pa.C.S.A. §§3005(e)(1), (e)(2) and (g).

Chapter 30 provides for certain continued oversight by the PUC of services designated as "competitive." It authorizes the PUC to revoke its competitive service" designation, and reclassify a Chapter 30 "competitive" service as "non-competitive." In addition, it requires that LECs:

- Include revenues from access services reflected in the price of competitive services within the company's total non-competitive revenues when applying the company's price stability mechanism formula. (See Finding L for additional information on company price stability mechanisms and how they work to determine the price consumers pay for non-competitive telecommunications services. Also see Finding N for a discussion of Chapter 30's requirements for access charge reductions.)[6]
- File informational tariffs or price lists for competitive services with the Commission.[7]

PUC-Approved LEC Chapter 30 Competitive Services

LB&FC staff reviewed all LEC Chapter 30 alternative regulation petitions and various PUC orders to identify the LEC services the PUC classified as "competitive" in Chapter 30 proceedings. Exhibit 13 shows that the PUC has classified 13 services as "competitive." Directory advertising, followed by billing and collection, inside wiring, customer premise equipment, and voice mail are the Chapter 30 noncompetitive services most frequently designated as competitive. Specific information concerning each competitive service is provided below. The order in which individual services are discussed is based on the number of LECs for whom the service was declared competitive.

Directory Advertising ("Yellow Pages"). Directory advertising by definition is not/was not a telecommunication service when it was first classified as a Chapter 30 competitive service in 1994. As far back as 1943, the PUC had determined that the "yellow pages" of the telephone book were primarily for advertising purposes and not public utility services subject to its regulatory jurisdiction. As a result, the PUC had not required tariff filings for such activities. The PUC subsequently reiterated this position in a 1958 court case and the Superior Court of Pennsylvania agreed with the Commission.[8] The Federal Communications Commission, moreover, had also determined that directory advertising revenues, expenses, and investments were non-regulated competitive activities of companies.

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[6]66 Pa.C.S.A. §3005(e)(2).
[7]66 Pa.C.S.A. §3005(e)(3).
[8]See *Felix v. Pa. P.U.C.*, 187 Pa. Superior Ct. 578, 146 A.2d 347 (1958).

Exhibit 13

Chapter 30 Competitive Services by Local Exchange Carrier

Company	Chapter 30 Competitive Services
ALLTEL Pennsylvania	➢ Approved petition states: "ALLTEL PA has not declared any regulated services to be competitive in this Plan."
Bell Atlantic-Pennsylvania (Verizon-PA)	➢ Directory Advertising ➢ Billing and Collection ➢ Centrex ➢ Paging ➢ Repeat Dialing/Repeat Call ➢ Speed Dialing/Speed Call ➢ High Capacity Services ➢ In-state IntraLATA Toll Services ➢ Certain Business Services
Commonwealth	➢ Billing and Collection ➢ Premises Equipment ➢ Inside Wiring ➢ Voice Mail
Five Frontier Companies	➢ Directory Advertising ➢ Billing and Collection ➢ Premises Equipment ➢ Inside Wiring ➢ Voice Mail
GTE North (Verizon North)	➢ Directory Advertising ➢ Billing and Collection ➢ Premises Equipment ➢ Inside Wiring ➢ Voice Mail ➢ Centranet ➢ Last Number Redial ➢ Speed Call ➢ In-state IntraLATA Toll Services
Ironton	➢ Billing and Collection ➢ Premise Equipment ➢ Inside Wiring ➢ Voice Mail
Kecksburg	➢ Directory Advertising ➢ Billing and Collection ➢ Premise Equipment ➢ Inside Wiring ➢ Voice Mail
Small Company Group A (N=4)	➢ Directory Advertising ➢ Billing and Collection ➢ Premise Equipment ➢ Inside Wiring ➢ Voice Mail
Small Company Group B (N=15)	➢ Directory Advertising ➢ Billing and Collection ➢ Premise Equipment ➢ Inside Wiring ➢ Voice Mail
TDS Telecom (N=2)	➢ Directory Advertising ➢ Billing and collection ➢ Premise Equipment ➢ Inside Wiring ➢ Voice Mail
United/Sprint	➢ Billing and Collection ➢ Premise Equipment ➢ Inside Wiring ➢ Voice Mail ➢ In-state IntraLATA Toll Services ➢ Directory Assistance

Source: Developed by LB&FC staff from PUC approved Chapter 30 petitions and subsequent PUC orders approving company petitions for additional competitive service designation.

Directory advertising helps to illustrate why LECs requested and the PUC, in its role of promoting the transition to competitive markets, designated activities it did not regulate as Chapter 30 competitive services. Even though directory advertising is not a telecommunications service and the PUC had not exercised direct jurisdiction over it since 1943, the PUC nevertheless continued to exercise what it referred to as "ancillary jurisdiction" for intrastate ratemaking purposes.

The Commission historically included the revenues, expenses and investments associated with yellow pages in determining a company's overall earning position and revenue requirements when conducting rate base/rate of return proceedings to develop just and reasonable rates. The effect of such PUC practices was that revenue from non-telecommunications activities that the PUC did not have jurisdiction to regulate was used to subsidize local rates. In the words of the Commission, such practices kept local exchange service rates "lower than they would be otherwise."[9]

Chapter 30 provides for rate deregulation of all competitive services identified in LEC petitions approved by the PUC. Such deregulation includes "the deregulation of rates, tolls, charges, rate structure, rate base, rate of return, or earnings of competitive services."[10] As a result, when the PUC classified activities that it is not authorized to regulate as a Chapter 30 competitive service, it removes the revenues associated with such activities from being available to help subsidize local rates. In other words, going forward, the revenues associated with such activities are not included in the intrastate retail revenues used in the calculations of company price stability mechanism formulas discussed in Finding L.

Billing and Collection Activities. The Federal Communications Commission (FCC) deregulated interstate billing and collection services in January 1986 (effective January 1, 1987). It did this because of the degree of competition existing for such business services.[11]

In January 1987, the PUC agreed to detariff Bell's billing and collection services.[12] The PUC, noted that:

> In providing billing and collection services, Bell is not engaging in the furnishing of traditional [emphasis in the original] utility services, such as contemplated by the Public Utility Code, but services more analogous to the private contractual sale of yellow pages advertising

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[9]See *Final Rulemaking Re Public Utility Earnings 52 Pa. Code Chapter 71; Bell Petition For Exclusion of Directory Services From Earnings Disclosure Reports, Docket No. L-910061;* Order entered October 28, 1992. See Appendix K for a copy of the order.

[10]66 Pa.C.S.A §3004(d)(3).

[11]FCC, Detariffing Billing and Collection Services, CC Docket No. 84-88, January 29, 1986.

[12]Detariffing refers to lessening the degree of regulation, such as by eliminating the requirement to file tariffs.

> which is provided under private contract, outside the scope of the tariffs.[13]

The PUC also noted when granting Bell's application, that it was not deregulating billing and collection as the FCC had done because the revenue from such business activities were reflected in the companies intrastate revenues for purposes of rate setting.

It was not until 1994 as part of Bell's Chapter 30 petition that the PUC finally deregulated intrastate billing and collection. In doing so, the PUC noted in response to objections raised by various parties that:

> Bell today rates and records only 10 percent of IXC messages in Pennsylvania and renders bills for only 10-15 percent of all IXC messages in the state...We agree with Bell that this decline in market share strongly indicates that Bell has lost market power to those portions of the billing market pertaining to larger customers and that such losses evince current competition in that area.
>
> Furthermore, in that portion of the market the OCA [Office of Consumer Advocate] describes as relating only to billing for small or occasional users, this segment represents less than 5 percent of the total IXC usage in Pennsylvania. Substitute services are available. One can bill these calls using calling cards or commercial credit cards by either the card issuer (like VISA) or the IXC handling the calls. For example, one does not need to be presubscribed to AT&T to use the AT&T Universal Card to complete a call. With no apparent BSFs [basic service function] attributable to this service, we will grant Bell's request to have Billing and Collection Services deemed competitive.[14]

Customer Premise Equipment (CPE) and Inside Wiring. In the early 1980s, the FCC had declared such services competitive and required the PUC to comply with overseeing both their detariffing and orderly deregulation within the Commonwealth. The PUC's 1983 order[15] detariffing these services did not fully oversee the deregulation of the services as required by the FCC, and as a result Pennsylvania's tariffs for such services did not completely "go away." As a result, LECs continued to be subject to certain residual regulation by the PUC of these detariffed and deregulated services until such time as these services were classified as competitive in LEC Chapter 30 alternative regulation petitions.

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[13]*Application of the Bell Telephone Company of Pennsylvania to Offer Billing and Collection Services to Interexchange Carriers Pursuant to Contract,* Order entered April 2, 1987.

[14]*Bell Atlantic-Pennsylvania, Inc.'s Petition and Plan for Alternative Form of Regulation Under Chapter 30, Docket No. P-00930715;* Order entered June 28, 1994, p. 107.

[15]*Detariffing of Customer Premise Equipment, Docket No. M-820334*; Order entered January 13, 1983. Appendix L contains a copy of the order.

The PUC in its 1983 order that started the detariffing and orderly deregulation of CPE noted that the FCC's order prohibited AT&T operating companies from providing the services covered in its order (except through separate subsidiaries). As a result, Bell did not provide such services in 1993 and, therefore, did not request they be designated competitive when it submitted its Chapter 30 petition to the PUC.

Voice Mail. The FCC, in the same order in which it deregulated customer premise equipment and pre-empted state authority to regulate customer premise equipment, also determined that enhanced services (i.e., information services) such as voice mail were also not within the jurisdiction of state commissions to regulate.[16] The federal courts subsequently upheld the FCC's order.[17] Because of the FCC prohibition noted above, Bell did not provide such services, and therefore, did not request that they be declared competitive for purposes of Chapter 30. For the reasons noted above, moreover, LECs requested the PUC designate voice mail services it did not have jurisdiction to regulate as competitive in their Chapter 30 petitions.

Certain IntraLATA Toll Services. When Chapter 30 was enacted in 1993, most intraLATA toll services were competitive services, i.e., multiple providers of the service were available to consumers. As discussed in Finding C, Chapter 30 deemed such services to be deregulated as of January 1994 when interexchange telecommunications companies provided them. Chapter 30, however, did not classify the exact same services as competitive when provided by local exchange companies. In September 1999 in its Global Order,[18] the PUC indicated that it would designate Bell's intraLATA toll services competitive under Chapter 30 following the FCC's determination that Bell had met the conditions set forth in TA-96 for it, or its affiliates, to provide long-distance services (i.e., interLATA services originating in any state). The PUC also required that the company must affirmatively demonstrate that its total toll revenue (for intraLATA toll service) exceeds its total imputed-switched access and carrier charge revenue on an aggregated toll service level to comply with Chapter 30's imputation standard.

On September 19, 2001, the FCC determined that Bell had met the TA-96 statutory requirements to provide long distance service. On September 20, 2001, Bell filed informational competitive service tariffs for its intraLATA message toll and wide area telecommunications services. On March 14, 2002, the PUC approved the compliance filing submitted by Bell in response to the PUC's Global Order. In

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[16]Second Computer Inquiry, Final Decision, 77FCC 2d 384 (Final Decision). Modified on reconsideration, 84 FCC 2d 50 (1980) (Reconsideration Order), further modified on reconsideration, 88 FCC 2d 512 (1981) (Further Reconsideration Order).

[17]Computer and Communications Indus. Assn v. FCC, 693 F.2d 198 (D.C. Cir. 1982) (CCIA v. FCC), cert. Denied, 461 U.S. 938 (1983), aff'd on second further reconsideration, FCC 84-190 (released May 4, 1984).

[18]*Joint Petition of Nextlink, et al. and Joint Petition of Bell Atlantic, et. al., Docket Nos. P-00991648 and P-00991649*; Order entered September 30, 1999.

its March 2002 order, the PUC determined that the company had met its imputation test and that its IntraLATA toll services were, therefore, competitive for purposes of Chapter 30.[19]

Approximately one month later (April 15, 2002), United/Sprint filed a petition with the PUC requesting that certain of its intraLATA toll services be designated competitive for purposes of Chapter 30. On August 8, 2002, the PUC entered an order classifying the company's intraLATA message toll services as competitive for purposes of Chapter 30. In doing so, the PUC required that the company meet the same imputation test it had set forth for Bell in the Global Order.[20] Prior to this time, the PUC had only applied imputation tests to Bell as part of its implementation of Chapter 30 and TA-96. (See the discussion in Finding P.)

GTE is the only company that has had intraLATA toll service designated as competitive when the PUC approved its Chapter 30 alternative regulation petition. On April 11, 2002, the PUC entered a final order approving the GTE's Chapter 30 petition and network modernization plan, including the company's request that its IntraLATA toll service be classified as competitive.

Centrex. These services connect private telecommunications systems with access to the public switched network—not the type of service an ordinary residential or small business customer would use. In 1989, the PUC authorized Bell to implement customized pricing and design options and allowed pricing flexibility for such services on an individual case basis.[21] In addition, the PUC determined in 1991 that centrex services are provided in a competitive market and that a large interexchange carrier was the dominant provider of centrex competitive services.[22]

Because it was convinced that sufficient competition existed and that Bell had met the burden of proof required by Chapter 30, the PUC determined that centrex was a competitive service for purposes of Chapter 30 when it initially approved Bell's Chapter 30 petition.[23] The PUC made a similar determination when approving GTE's petition in April 2002.

Paging Services. These services provide one-way transmission of messages using the public switched network and radio frequencies to notify paging customers away from their homes or offices that someone is attempting to call them. In 1994, there were approximately 50 providers of paging services in Pennsylvania with one

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[19]*PUC v. Verizon Pennsylvania, Docket Nos. P-00991648 and P-00991649;* Order entered March 14, 2002.
[20]*Petition of The United Telephone Company of Pennsylvania for the Determination of IntraLATA Toll Services as Competitive Pursuant to Chapter 30 (Revised), Docket No. P-00021962;* Order entered August 8, 2002.
[21]*PUC v. Bell Telephone Company of Pennsylvania, Docket No R-881131;* Order entered January 25, 1989.
[22]*American Telephone and Telegraph Company and AT&T Communications of Pennsylvania, Inc. v. The Bell Telephone Company of Pennsylvania, Docket No. R-891564C001;* p. 10.
[23]*Bell Atlantic–Pennsylvania, Inc.'s Petition and Plan for Alternative Form of Regulation Under Chapter 30, Docket No. P-00930715;* Order entered June 28, 1994, p. 114 & 115.

dominant (non-LEC) provider accounting for 32 percent of the market, and Bell accounting for only 4 percent.[24]

The PUC had been preempted from regulating entry and rates for paging and other services on August 10, 1993, when the Omnibus Budget Reconciliation Act of 1993 was enacted into federal law. In 1994, however, the PUC was still establishing tariffs for such services.

On June 28, 1994, as part of Bell's Chapter 30 proceedings, the PUC determined that paging service was competitive for purposes of Chapter 30. Subsequently, effective August 10, 1994, the Commission by federal law was preempted from regulating either the entry or rates of commercial radio service providers (including paging service providers).[25] The PUC clarified the non-jurisdictional status of such services in 1995. LECs that subsequently submitted Chapter 30 petitions, therefore, did not have to request to have the service declared competitive.

Repeat Call and Speed Dialing. Repeat call service allows a customer to automatically redial the last number dialed though use of an abbreviated code. If the called number is busy, the calling party is told the call can be attempted when the number is no longer busy. Speed dialing allows a customer to make local and long distance calls by dialing abbreviated dialing codes.

In 1994, Bell requested that such services be classified as competitive because readily available customer premise equipment provided the same functionality to customers without use of the LEC services, and there were competitive providers of the service. The PUC, therefore, determined that such services were competitive.

High Capacity and High Capacity Lightwave Services. On October 16, 1995, the PUC approved a June 12, 1995, settlement agreement between Bell, the Office of Consumer Advocate, AT&T Communications of Pennsylvania, Inc., MCI Telecommunications Corporation, Eastern TeleLogic Corporation, and the Pennsylvania Cable and Telecommunications Association providing for Chapter 30 competitive service designation for Bell's high capacity special services.[26] (The services classified as competitive meet Chapter 30's definition of "broadband.")

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[24]Ibid, p. 109.

[25]*Implementation of the Omnibus Budget Reconciliation Act of 1993—Declaratory Order, Interim Rules and Proposed Rulemaking, Inquiry into the Jurisdictional Status of Personal Communications Services/Personal Network Service (PCS/PCN), Docket Nos L-00950104 and M-00950695;* Order entered June 16, 1995.

[26]*Petition of Bell Atlantic–Pennsylvania, Inc. for a Determination of Whether Digital Data Services and High Capacity Services are Competitive ; Ratification of Emergency Order, AT&T Communications of Pennsylvania, Inc. v. Bell Atlantic–Pennsylvania, Inc., Docket Nos P-00950929 and P-00950929C0001;* Order entered October 16, 1995.

The Commission noted in its order that large and medium-sized government units and businesses typically use such services. It also noted that Commonwealth and federal government agencies were potential customers of such services, and the general public would, therefore, benefit from their competitive provision.

Certain Business Services. On December 16, 1997, Bell requested the PUC declare the company's telecommunications services for business customers "competitive." The company requested the designation in order to provide custom-priced packages of services designed to meet individual customer needs. In its request, the company noted that the PUC in the early 1990s had permitted its competitors to establish tariffs offering businesses services on an individual case basis (ICB) with no limitation on the dollar amount specified in such tariffs. The PUC deferred a decision on Bell's request until it issued its Global Order in September 1999.

In the Global Order, the PUC authorized Bell to provide certain business services on a competitive basis. In doing so it recognized that TA-96 already required Bell to respond to requests for proposals from customers covered by the universal service provisions of the federal statute (e.g., hospitals, schools). It also noted that in June 1998 it had granted Bell a waiver allowing it to respond to the Commonwealth of Pennsylvania's RFP for executive branch agency telecommunications services, and it had set forth criteria that it would use to evaluate subsequent company requests for waivers to respond to specific customer bid requests. Such criteria include the following:

- Each proposal submitted as an ICB tariff must include a "fresh-look" clause on an ongoing three-year basis. In other words, the customer must be allowed to revisit (or terminate) the contract every three years.
- The proposed ICB tariff must generate total billed revenues of $500,000 or more, except for responses to proposals the company submits to comply with Section 254 of the TA-96. (Such customers may have total billed revenues of $40,000.)
- The company must simultaneously provide the PUC with a copy of the RFP and the company's bid in response to the RFP.
- The imputation test for toll services approved by the Commission in its Final Order at Docket No. R-00953396C0001 must be met.
- The final contracts parts that are not proprietary shall be publicly available.[27]

[27] *PUC v. Bell Atlantic, Inc. MCI Telecommunications Corporation and MCImetro Access Transmission Services Inc. v. Bell Atlantic–Pennsylvania, Inc., Petition of Bell Atlantic-Pennsylvania Inc. for an Expedited Waiver of 60-Day Notification Period for Business Individual Case Basis Tariff, Docket Nos. R-00984335, R-00984335C0001, and P-00981358*; Order entered June 18, 1998.

Subsequently, in March 1999, Bell petitioned the Commission to allow it to respond to a request for a competitive bid from a hospital that would be less than $500,000. On June 10, 1999, the PUC approved the request.[28]

In the Global Order, the PUC set forth a specific schedule with conditions for Bell's business services to be declared competitive. Such services would be declared competitive:

- Immediately for customers generating $80,000 or more in annual total bill revenue in areas where Local Number Portability is available. (Local number portability permits telephone customers in certain areas to change local service providers without changing their telephone number. It promotes competition, and is required by TA-96. See Finding P.)
- One year after Local Number Portability is available throughout the Bell service territory for customers generating $40,000 to $ 80,000 in annual total billed revenue.
- Two years after Local Number Portability is available throughout the Bell service territory for customers generating between $10,000 and $40,000 in annual total billed revenue.

The Global Order also allows Bell to offer an Individual Case Basis contract to a customer where (a) the customer already subscribes to local exchange services from a CLEC, or (b) the customer actually receives a bona fide bid with stated terms and conditions for local exchange services from a CLEC. However, in no case can the Individual Case Basis contract be below Bell's cost.[29] Moreover, Bell must advise the customer that the contract may be cancelled within 90 days without the customer incurring any termination liability.[30]

On July 1, 2002, Bell petitioned the PUC to have business services to customers generating less than $10,000 in total billed revenue declared competitive. On January 23, 2003, a PUC ALJ recommended that the Commission deny the request, reasoning that the company had not met the criteria set forth in Chapter 30 for competitive service designation for businesses with less than $10,000 in total billed revenue. The matter is currently pending before the Commission.

Directory Assistance Services. On October 20, 2000, United/Sprint filed a petition with the Commission requesting that its Directory Assistance, Directory Assistance Call Completion and National Directory Assistance services be classified as competitive for purposes of Chapter 30. The company entered into a settlement

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[28]*Pa. PUC v. Bell Atlantic–Pennsylvania, Docket No. P-00991650*; Order entered June 10, 1999.
[29]The PUC requires Bell to submit under proprietary seal all ICB proposals at the same time the proposal is submitted to the customer and to file under proprietary seal all ICB contracts. It also requires compliance with the "fresh look" clause in its prior order.
[30]PUC Global Order, pp. 242-248.

agreement with the Office of Consumer Advocate and the PUC's Office of Trial Staff, which the PUC approved on January 24, 2001.

The agreement provided for the continued provision of two free directory assistance calls per month to residential customers for a one year period, and one free call each month in the second year. At the end of the second year, United/Sprint would be allowed to charge customers for Directory Assistance services with one exception. Existing tariff provisions exempting patients in hospitals, skilled nursing homes and convalescent homes, and persons unable to use the directory due to visual and physical handicaps from directory assistance charges, would continue.[31]

Controversy Surrounding PUC Competitive Service Designation

The PUC designated most of the above services as competitive over the strong objection from parties involved in LEC Chapter 30 proceedings. When the PUC approved Bell's Chapter 30 petition designating directory advertising, Centrex, billing and collection services, paging, repeat call and speed dialing as competitive, the Pennsylvania Consumer Advocate and several of Bell's competitors challenged the PUC's decision in state court. Initially, in December 1995, Commonwealth Court determined that the Commission impermissibly failed to make statutorily required findings of fact before classifying Bell's six services as competitive. The Commonwealth Court further reasoned that statutory competitive safeguards were a prerequisite to classification of carrier's services as competitive. The Commonwealth Court, therefore, determined that the Commission could not classify services as competitive without a finding of adequacy as to safeguards.[32]

Subsequently, in December 1997, the Supreme Court of Pennsylvania reversed the Commonwealth Court's determinations concerning the PUC's competitive service designations in Bell's Chapter 30 petition. The Supreme Court determined that the Commonwealth Court should not substitute its judgment for that of the PUC when substantial evidences supports the PUC's decision on a matter within the PUC's expertise. The Court determined that the legislature did not require preexisting competitive safeguards be in place prior to classifying services as competitive as this would delay accelerated deployment of network modernization. It also determined that there was substantial evidence to support the PUC's findings that Bell's six services were competitive.[33]

Despite the Supreme Court's 1997 decision, litigation continued when LECs sought to designate services as competitive as part of their Chapter 30 alternative regulation petitions. In some instances, the PUC's Administrative Law Judges

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[31]*Petition of The United Telephone Company of Pennsylvania for the Determination of Directory Assistance Services as Competitive Pursuant to Chapter 30, Docket No.-P-00001850*; Order entered January 24, 2001.
[32]Popowsky v. Pennsylvania Public Utility Commission, 669 A.2d 1029 (Pa.Cmwlth. 1995).
[33]Popowsky v. Pennsylvania Public Utility, 550 Pa. 449 (1997).

agreed with such parties. As late as 1999, for example, one IXC argued against United/Sprint's proposal for competitive service designation for collection and billing, customer premise equipment, inside wiring, and voice mail taking the position that Chapter 30 required company-specific proof that a service is competitive, and that the statute does not contain exceptions for "deregulated" or "detariffed" services. In response, United/Sprint argued that since the PUC had detariffed and deregulated these services before the effective date of Chapter 30:

> . . . the legislature could not have contemplated that services that previously were declared to be competitive or deregulated would then come under the Commission's requirement for review as a competitive service [under Chapter 30]. United reminds the Commission that it is axiomatic that statutes cannot be given retroactive effect, unless clearly and manifestly so intended by the legislature.[34]

In the case of United/Sprint after considerable debate over the issue by the parties to the proceeding, the Commission determined that collection and billing, customer premise equipment, inside wiring, and voice mail were competitive services for purposes of Chapter 30 for United/Sprint.

[34]*Petition of the United Telephone Company of Pennsylvania for Approval Under Chapter 30 of the Public Utility Code of an Alternative Regulation and Network Modernization Plan, Docket No. P-00981410*; Order entered July 16, 1999, p. 8.

L. LEC Alternative Regulation Price Stability Formulas Differ in Important Ways

Chapter 30 allows local exchange companies to submit petitions requesting the PUC to approve alternative ways of establishing rates for company noncompetitive services, including protected telephone services, in exchange for agreeing to accelerate deployment of technology necessary to provide for broadband capable telecommunications services and agreeing to meet certain access charge requirements. (See Finding N for the access requirements that must be met in order for the PUC to approve a company's alternative regulation petition and network modernization plan.)[1]

Chapter 30's Alternative Regulation

Chapter 30 defines "alternative form of regulation" as:

> A form of regulation of telecommunications services other than the traditional rate base/rate of return regulation, to be determined by the commission. The term includes the use of any index, formula, rate stability plan, zone of rate freedom or streamlined form of rate regulation.[2]

The statute requires that the commission approve company petitions for alternative regulation, after notice and hearing, only if the petition ensures continued affordability of protected telephone services, and assures the rates for noncompetitive services are just, reasonable and not unduly discriminatory. The statute further notes that:

> Subject to commission approval, a price stability mechanism that allows total annual revenues from noncompetitive services to increase or decrease from previous year's total revenues from noncompetitive services as a result of tariff rate changes based on the annual change in the Gross Domestic Product Price Index, as calculated by the United State Department of Commerce, minus 2.25% may meet the requirement of this section. Tariffs to recover the additional revenues shall be subject to commission approval under section 1308 (relating to voluntary changes in rates).[3]

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[1]Chapter 30 defines protected telephone service to include telecommunications service provided to business or residential consumers that is necessary for completing a local exchange call, touch-tone service, switched-access service, special-access service, and ordering, installation, restoration, and disconnection of these services. 66 Pa.C.S.A. §3002.

[2]66 Pa.C.S.A.§3002.

[3]66 Pa.C.S.A. §3004(d)(2).

Indexed Price Cap Regulation

The Chapter 30 petitions for alternative form of regulation use the labels "price stability mechanism" and "price change opportunity " or "price stability formula" when referring to the alternative forms of regulation approved by the PUC. A 1998 study sponsored by The National Regulatory Research Institute (NRRI) characterized the primary alternative form of regulation included in PUC-approved Chapter 30 petitions as "Indexed Price Cap" regulation. The NRRI study explained such regulation in the following way.

> The central idea behind a price cap plan is to control the price a regulated LEC charges rather than its earnings. Maximum price levels are established and the LEC retains any incremental earning above costs. This in turn encourages cost minimizing behavior and results in greater productive efficiency. The price level is indexed by an inflation rate adjustment mechanism [such as the Gross Domestic Product Price Index, the Gross National Product Price Index, and the Consumer Price Index].
>
> In theory, price cap plans require the regulated LEC's average real prices to fall annually by a specified percentage productivity offset... This productivity offset represents the percentage reduction in prices that the LEC is deemed technologically capable of implementing without jeopardizing its financial integrity. Under the simplest version of price cap regulation, the regulated LEC is given substantial freedom to set rates for individual services. Often services are grouped into baskets. The LEC can raise its rates for some services (or a basket of services), provided it lowers its rates on other services (or baskets of services) sufficiently to ensure that real overall average rates decline by the required amount.[4]

Price Stability Formulas in PUC-Approved Petitions for Alternative Forms of Regulation

The PUC approved forms of indexed price cap regulation for a majority of the incumbent local exchange carriers. Fifteen small companies (i.e., Small Company Group—Plan B in Exhibit 2), however, did not petition for price cap regulation. The PUC allowed such companies the flexibility to opt for the alternative form of regulation approved for other smaller companies (i.e., Small Company Group—Plan A in Exhibit 2). In the meantime, increases, decreases and changes in the rates for non-competitive services for the 15 small companies are subject to a simplified rate fil-

[4]Abel, J. and M. Clements, *A Time Series and Cross-Sectional Classification of State Regulatory Policy Adopted for Local Exchange Carriers*, Columbus, Ohio: The National Regulatory Research Institute, December 1998, p. 10.

ing process that relies on certain rate-base rate of return data. The PUC-approved conditions and procedures for Simplified Rate Filing for the 15 small companies are set forth in detail in Appendix M.

The PUC-approved petitions for alternative forms of regulation for individual LECs include a price stability or price cap formula that is used to determine whether there will be increases, decreases, or no change in retail rates for the LEC's noncompetitive services. When company total intrastate retail revenues for noncompetitive services in a given year[5] are in excess of the revenue amounts allowed under the LEC's price cap formula, the company must file tariffs reducing rates for noncompetitive services by that amount. Similarly, when such company revenues in a given year are below the amount allowed by the application of the price cap formula, the company can file tariffs providing for increased rates for noncompetitive services. All such filings must be reviewed by the PUC. As noted in Finding M, intrastate revenues[6] for Chapter 30 competitive services are not included in company intrastate revenues when the formulas are applied; however, in-state access revenues associated with such competitive services are included.

Each LEC's alternative form of regulation price stability or price cap formula generally includes reference to a:

- Revenue base,
- Inflation factor,
- Productivity offset, and
- Exogenous event.

All of the price cap formulas approved by the PUC rely on the United States Department of Commerce's GDP-PI to measure inflation—the inflation index referenced in statute. Differences, however, exist for all of the remaining elements in the formulas approved for individual companies. Some of the differences are to be expected, though others are not readily explained, other than as a possible result of the "non-uniform," litigious processes that implemented Chapter 30 (see Finding D).

Revenue Base. The price cap formula's revenue base includes the LEC's retail revenues for intrastate services approved by the PUC as just and reasonable based on the company's last rate proceeding. Typically, it is based on rates in effect at the time the company submitted its petition. Some of the approved petitions and

[5]In some cases, the PUC's approved alternative form of regulation allows for "banking." As a result, the required tariff filings associated with the alternative form of regulation do not always occur on an annual basis and "credits" applicable under the formula can be applied in subsequent years, with interest if owed the consumer.

[6]Interstate revenues and revenues derived from wholesale services are also not included in the formula equation.

Exhibit 14

LEC Revenue Base Under Alternative Regulation Formulas

Company	Alternative Regulation Formula Revenue Base
ALLTEL Pennsylvania[a]	➢ Revenues for noncompetitive services associated with rates in effect as of the approval date of the plan or as otherwise adjusted by the Global Order. ➢ In no event shall the new Price Stability Index (PSI), excluding the effect of exogenous events, be less than the PSI calculation as of the effective date of the plan.
Bell Atlantic-Pennsylvania (Verizon-PA)	➢ Revenues for noncompetitive services associated with rates in effect as of October 1, 1993. ➢ Rates for services within the protected service categories of residential local exchange services and business local exchange services cannot increase through December 31, 1999. Rates for special and switched access cannot increase through December 31, 1999, unless absent an increase, their revenues would be below cost.
Commonwealth[a]	➢ Revenues for noncompetitive services associated with rates in effect as of April 15, 1996. ➢ The company's three-year general rate case moratorium provided for a revenue moratorium that started in January 1994 and was extended until January 1, 1999. Revenues under the formula, therefore, would not be allowed to increase until at the earliest on January 2, 1999.
Five Frontier Companies[a]	➢ Revenues for noncompetitive services associated with rates in effect as of November 15, 1995. ➢ The "new" PSI shall not be less than the "current" PSI through and including the March 2001 PSI effective date. Thereafter, the "new" PSI may be less than the "current" PSI as a result of the application of the 2.8 percent productivity offset.
GTE-North (Verizon-North) [a]	➢ Revenues for noncompetitive services associated with rates in effect on the effective date of the final plan. ➢ The $5 million reduction in basic local service rates referenced in the Memorandum of Understanding related to the Verizon parent level merger shall not be counted as a reduction in the Service Price Index, which cumulatively tracks price changes implemented by the annual Price Stability Index recalculation.
Ironton[a]	➢ Revenues for noncompetitive services associated with rates in effect on the date of approval of the plan. ➢ In no event shall the "new" PSI be less than the PSI calculated for the calendar year 1996.

Exhibit 14 (Continued)

Company	Alternative Regulation Formula Revenue Base
Kecksburg[a]	➢ Revenues for noncompetitive services associated with rates in effect on August 15, 1997. ➢ In no event shall the "new" PSI be less than the PSI calculated for the calendar year 1996.
Small Company Group (Plan A)[a]	➢ Revenues for noncompetitive services associated with rates in effect on the approval date of the Plan or as otherwise adjusted pursuant to the Global Order. ➢ In no event shall the "new" PSI, excluding the impact of exogenous events, be less than the PSI calculated as of the effective date of the plan.
TDS Telecom[a]	➢ Revenues for noncompetitive services associated with commission-made rates resulting from a settlement agreement approved by the PUC in an order entered on January 29, 1998. ➢ Includes a two-year moratorium on residential and business rates.
United/Sprint	➢ Revenues for noncompetitive services associated with rates in effect on October 16, 1998. ➢ The PSI will not be recalculated through 2001. The first recalculation of the PSI will be for the annual price cap filing in the year 2002.

[a]The company's petition includes a "banking" provision. As a result of such a provision, the company need not immediately file tariffs to implement the allowed revenue increase (or decrease) under the formula. It can be temporarily deferred.

Source: Developed by LB&FC staff based on PUC-approved Chapter 30 petitions.

plans, however, required implementation of certain Chapter 30 rate restructuring and rebalancing provisions before the base was determined.

Some of the differences in the approved formulas, however, are not readily explained. As shown in Exhibit 14, for example, the revenue base established for ALLTEL, Ironton, Kecksburg, and the Small Plan A Companies include provisions that do not allow the revenue base going forward to be lower than at the start of the company's alternative regulation. Some companies (e.g., Frontier and United/Sprint) have temporary revenue floors. Others, such as Bell, Commonwealth, GTE, and TDS, do not have revenue floors built into their alternative regulation formulas.

Productivity Offset. LEC alternative regulation formulas also differ in the productivity offsets approved by the PUC. Company size is one factor that could account for differences among companies in their productivity offsets. Some of the apparent differences in Exhibit 15, however, cannot be explained by the size of the company. The five Frontier companies with combined access lines of less than 50,000, for example, have a productivity offset of 2.8 percent—slightly below the 2.93 offset for the company with the largest number of access lines in the state, and well above the productivity offset approved for significantly larger companies such as ALLTEL, Commonwealth, and United/Sprint.

Exhibit15

LEC Productivity Offsets in Alternative Regulation Price Cap Formulas

Company	Productivity Offset
ALLTEL Pennsylvania	2.0%
Bell Atlantic-Pennsylvania (Verizon-PA)	2.93%
Commonwealth	2.0%
Five Frontier Companies	2.8%
GTE North (Verizon-North)	2.5%
Ironton	2.0%
Kecksburg	2.0%
Small Company Group – Plan A	2.0%
TDS Telecom	2.0%
United/Sprint	2.0%

Source: Developed by LB&FC staff from PUC-approved Chapter 30 petitions.

Exogenous Events. Such events are outside of the control of the company. Costs associated with such events can modify the derived revenue base and result in increases (or decreases) in customer rates. The PUC must approve exogenous events and their related costs in order for a company to factor such costs into its price change submissions. Several of the exogenous events identified in PUC-approved petitions (See Exhibit 16.) involve federally initiated changes that affect company financial reporting, including inter and intrastate revenue apportionment.

Exhibit 16

Exogenous Events Included in PUC-Approved Chapter 30 Petitions by Company

Company	Exogenous Events Specified in Approved Petitions
ALLTEL Pennsylvania	➢ Jurisdictional shifts in cost recovery where interstate revenues actually change. ➢ General Accepted Accounting Principles (GAAP) changes affecting revenues and/or expenses not captured in the GDP-PI. ➢ Subsequent legislative and regulatory changes (state and federal) affecting revenues and/or expenses not captured in the GDP-PI. ➢ Unique changes in the telephone industry not captured in the GDP-PI and that are outside the company's control. ➢ A State universal service type fund with any requirement that the company participates as a customer and/or recipient shall qualifying to the extent the company is either a net contributor or a net recipient from such a fund. ➢ Implementation of Number Portability.
Bell Atlantic-Pennsylvania (Verizon-PA)	➢ Jurisdictional shifts where costs are transferred to or from the interstate jurisdiction and where an equal and opposite exogenous adjustment was allowed by the Federal Communications Commission under its price cap system. ➢ Limited regulatory accounting changes not initiated by Bell.
Commonwealth	➢ Jurisdictional shifts in cost recovery where interstate revenues actually change. ➢ Conversion of the company from average schedule settlements to a cost based or other method of interstate compensation. ➢ Subsequent legislative and regulatory changes (state and federal) affecting revenues and/or expenses not captured in the GDP-PI. ➢ Unique changes in the telephone industry not captured in the GDP-PI. ➢ A state universal service type fund and any requirement that the company participate as a contributor.
Frontier Companies	➢ Jurisdictional shifts in cost recovery where interstate revenues and rates actually change. ➢ Subsequent legislative and regulatory changes (state and federal) affecting revenues and/or expenses not captured in the GDP-PI. ➢ Unique changes in the telephone industry not captured in the GDP--PI and that are outside the company's control. ➢ A state universal service type fund and any requirement that the companies participate as contributors. ➢ Implementation of IntraLATA presubscription.
GTE (Verizon-North)	➢ Jurisdictional shifts in costs when interstate revenues actually change. ➢ Subsequent legislative and regulatory changes (federal or state) affecting revenues or expenses and not captured in the GDP-PI. ➢ Unique changes in the telephone industry not captured in the GDP-PI. ➢ Future increases in the amount of the company's required contribution to the Universal Service Fund in Pennsylvania.
Ironton	➢ Jurisdictional shifts in cost recovery where interstate revenues actually change. ➢ Conversion of the company from average schedule settlements to a cost based or other method of interstate compensation. ➢ Subsequent legislative and regulatory changes (state and federal) affecting revenues or expenses and not captured in the GDP-PI. ➢ Unique changes in the telephone industry not reflected in the GDP-PI. ➢ A state universal service type fund in Pennsylvania and any requirement that the company participate as a contributor. ➢ Implementation of number portability. ➢ Modifications to current intercompany compensation agreements.

Exhibit 16 (Continued)

Company	Exogenous Events Specified in Approved Petitions
Kecksburg	➢ Jurisdictional shifts in cost recovery where interstate revenues actually change. ➢ Subsequent legislative and regulatory changes (state and federal) affecting revenues and/or expenses and not captured in the GDP-PI. ➢ Unique changes in telephone industry not reflected in the GDP-PI. ➢ A State universal service type fund in Pennsylvania and any requirement that the Company participate as a contributor. ➢ Conversion of the company from average schedule settlements to a cost-based or other method of interstate compensation. ➢ Implementation of number portability. ➢ Modifications to current intercompany compensation agreements.
Small Company Group – Plan A	➢ Jurisdictional shifts in cost recovery where interstate revenues or costs actually change. ➢ Conversion of the company from average settlement to a cost-based or other format. ➢ Changes to the Generally Accepted Accounting Principles that are reflected as changes in regulatory accounting requirements for cost determination and ratemaking purposes that will result in cost changes. ➢ Subsequent legislative and regulatory changes (state and federal) affecting revenues and/or costs not captured in the GDP-PI. ➢ Unique changes in the telephone industry not reflected in the GDP—PI. ➢ A State universal service type fund in Pennsylvania and any requirement that the company participates as a contributor and/or recipient shall qualify to the extent the company is either a net contributor or a net recipient from such a fund. ➢ Implementation of IntraLATA presubscription. ➢ Implementation of number portability.
Small Company Group – Plan B	➢ Same as Small Company Group Plan A should the company elect alternative form of regulation.
TDS Telecom	➢ Jurisdictional shifts in cost recovery where interstate revenues and rates actually change. ➢ Subsequent legislative and regulatory changes (state and federal) affecting revenues and/or expenses. ➢ Unique changes in the telephone industry not reflected in the GDP-PI. ➢ A State universal service type fund in Pennsylvania and any requirement that the companies participate as contributors. ➢ Any costs for Lifeline Services (or an equivalent program) or for a Disabilities Program (or its equivalent) resulting from a Commission order approving such a program. ➢ Implementation of IntraLATA presubscription. ➢ Any order affecting access charges.
United/Sprint	➢ Jurisdictional shifts in cost recovery when interstate revenues actually change. ➢ Subsequent legislative and regulatory (state and federal) changes affecting revenues and expenses not captured in the GDP-PI. ➢ Unique changes in the telephone industry not captured in the GDP-PI. ➢ A state universal service fund in Pennsylvania and any requirement that the company participate as a contributor.

Source: Developed by LB&FC staff from PUC-approved Chapter 30 petitions.

Some differences in the exogenous events in PUC-approved petitions appear to be accounted for by differences in the time when the petition was submitted to the PUC. The PUC approved petitions categorizing activities (and costs) associated with the implementation of TA-96 requirements as exogenous events for some small and mid-size companies. Number portability is an example of such a requirement.

Rate Freezes and Temporary Rate Increase Moratoriums

Three of the PUC-approved alternative regulation petitions include provisions that have limited the way in which the price changes resulting from the application of a price stability or price cap formula can be applied, or have temporarily limited revenue under the cap.

Rate Freeze on Bell's Protected Service. Bell in its Chapter 30 alternative regulation petition proposed to freeze its protected service rates[7] for two years under its price cap. In other words, if as a result of the application of the company's price cap formula, the company would be allowed to increase rates for its noncompetitive services, protected telephone service rates would not be allowed to increase. When approving the company's alternative regulation petition, however, the PUC extended the company proposed protected services rate freeze through December 31, 1999. Subsequently, in its Global Order, the PUC further extended the freeze until December 31, 2003.

Temporary Revenue Moratoriums. A few of the PUC-approved alternative forms of regulation included temporary rate or revenue moratoriums. Such moratoriums were ordered for:

- Commonwealth—a revenue moratorium until January 1, 1999.
- TDS Telecom Companies—a two-year rate moratorium for one-line residential service and single-one-line business service with up to three lines. The moratorium commenced following the approval of the companies' Chapter 30 petition and plan. It covered possible increases due to the operation of the annual price cap formula (including "banked" increases); some, but not all, exogenous events; and any rate rebalancing and restructuring due to exogenous events.

Monitoring the Effect of Alternative Regulation

The PUC continues to protect consumers under alternative forms of regulation. The PUC, in response to emerging open and competitive telecommunication markets, has introduced certain flexibility into its tariff filing procedures.[8]

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[7]At the time of its proposal, the company's basic telephone service rates had not been increased since 1985.

[8]52 Pa. Code §§53.57-53.60.

However, it reviews alternative regulation price change filings, and must accept the filing and any proposed tariff changes before they can be applied.[9]

In addition, the PUC has other ways to protect consumers and monitor the effects of alternative regulation. The PUC prepares reports that allow interested parties to begin to assess if a company's intrastate telecommunications revenues should be subject to an investigation. The PUC, for example, in its annual report provides information on the average revenue per local access line for the several companies. Information from the most recent annual report is shown in Table 7.

Table 7

Pennsylvania Major Telephone Utilities
Average Revenue Per Local Access Line
1991 – 2001
(Dollars/Access Line)

FFY	ALLTEL	Bell Atlantic/ Verizon-PA	Commonwealth Telephone Company	Conestoga Telephone & Telegraph Company	GTE/ Verizon NO	United Telephone Co. of PA	Avg. Price Nominal
1991	218.64	246.77	111.74	129.70	234.97	203.62	237.34
1992	215.07	247.88	108.54	133.93	235.03	211.95	238.09
1993	188.15	254.21	111.88	138.65	237.18	191.14	242.67
1994	192.52	264.03	110.38	134.46	232.77	202.11	250.43
1995	195.89	265.95	130.50	117.25	226.97	210.58	252.14
1996	209.30	271.79	133.29	119.61	222.53	220.74	257.25
1997	227.00	274.87	135.89	119.82	221.25	232.29	260.51
1998	236.18	271.53	143.61	135.98	230.70	236.50	259.64
1999	248.68	278.39	148.51	146.17	222.30	241.78	264.98
2000	261.57	268.96	152.39	157.09	254.73	247.64	260.93
2001	263.75	260.97	175.98	150.55	246.18	266.86	254.54
% Change							
Nominal...	20.6	5.8	57.5	16.1	4.8	31.1	7.2
Real.....	-7.2	-18.7	21.1	-10.7	-19.4	0.8	-17.5

Source: PA PUC 2001-2002 Public Utility Commission Annual Report, p.41.

[9]The PUC's acceptance of a company's tariff as filed following staff review does not mean that the PUC determined the rates are just and reasonable for purposes of any subsequent proceedings.

The Bureau of Fixed Utility Services also prepares reports on the quarterly intrastate earnings of utilities under the jurisdiction of the PUC. The Commission routinely releases such quarterly data to the public and interested parties. Within the report, the PUC provides the PUC's authorized return on equity for major companies, the PUC staff's calculation of market-based return on equity for comparison groups, and actual (and adjusted) intrastate equity returns for several of the larger incumbent telephone companies.

The PUC has approved rates of return on equity for the following incumbent local exchange companies:

- ALLTEL PA—15.30
- Bell Atlantic–Pennsylvania (Verizon-PA)—15.15
- Commonwealth—12.77
- GTE (Verizon North)—14.02
- United/Sprint—15.50.

As shown in Table 8, Bureau of Fixed Utility report data indicate that company equity returns by quarter typically are below the PUC's approved return on equity.

The FUS reports are routinely provided to the PUC's Office of Trial Staff. LB&FC staff met with OTS technical staff that routinely reviews the FUS reports. They indicated that they have met with companies whose reported equity returns by quarter were higher than the PUC's approved company return on equity. OTS technical staff advised us that when company reported equity returns are higher than PUC's approved return on equity for the company, such data are the result of reporting anomalies.

Duration of Alternative Regulation

Prior to Chapter 30's enactment, the PUC had the legal authority to determine if proposed rates for telephone services were just and reasonable without having to use rate of return methodologies. Alternative regulation, therefore, could continue if Chapter 30 expires on December 31, 2003.

Additionally, several of the PUC-approved Chapter 30 petitions (ALLTEL, Frontier Companies, GTE, Ironton, Kecksburg, Small Company Group Plan A and B companies, United/Sprint) include language that provides for continued operation of the approved alternative regulation petitions and plans should Chapter 30 expire. ALLTEL PA's approved petition and plan, for example, indicates:

> The legislation underlying this Plan sunsets on December 31, 2003, absent an act of the General Assembly. In the event Chapter 30 sunsets, is modified, or is repealed, ALLTEL PA may seek appropriate

Table 8

Telecom Utilities
Equity Returns by Quarter

Qtr Ended	ALLTEL PA		Bell of PA		Commonwealth		GTE		United Sprint	
	Act.[a]	Adj.[b]	Act.[a]	Adj.[b]	Act.[a]	Adj.[b]	Act.[a]	Adj.[b]	Act.[a]	Adj.[b]
1993 4	7.63	9.03	5.83	6.26	0.97	-3.99	9.29	10.91	9.65	10.01
1994 1	6.70	8.01	6.30	6.30	5.39	1.63	8.99	9.14	10.39	10.58
2	9.99	9.99	6.08	6.08	5.22	2.64	8.11	9.30	12.14	8.37
3	11.97	11.97	5.13	5.13	7.20	3.15	8.08	9.34	11.89	8.98
4	11.20	12.20	6.96	5.52	5.79	1.13	6.66	10.18	12.97	11.35
1995 1	14.28	14.82	6.91	6.91	5.63	0.99	6.08	7.57	12.52	11.59
2	14.13	14.13	7.06	7.06	7.59	3.17	6.05	7.69	13.39	12.56
3	14.45	14.45	7.47	7.47	8.02	3.77	5.66	7.90	14.48	13.36
4	10.91	11.03	6.84	7.21	11.16	2.47	6.89	8.72	12.39	11.62
1996 1	15.14	15.14	6.32	6.32	11.86	3.35	8.97	8.97	12.65	11.65
2	11.55	11.76	6.10	6.10	10.59	2.76	11.18	10.67	12.08	11.17
3	10.61	10.82	3.92	3.92	9.90	2.85	13.52	12.69	12.65	11.59
4	11.86	12.24	3.80	3.93			5.83	6.71	14.16	13.33
1997 1	12.29	12.69	4.39	4.39			4.59	6.19	14.98	14.19
2	13.90	14.31	6.63	6.63			2.60	7.34	14.52	13.14
3	15.33	15.76	9.18	9.18			2.32	9.75	15.20	10.82
4	14.60	15.55	6.78	7.19			8.83	11.41	14.97	10.74
1998 1	14.42	15.37	6.97	6.97			6.93	4.81	16.54	11.94
2	15.22	16.20	4.85	4.85			7.71	5.61	17.28	11.89
3	13.53	14.47	7.14	7.14			5.09	6.80	16.53	11.38
4	14.66	14.45	13.22	12.76			5.66	10.93		
1999 1	15.03	15.44	11.72	11.72	Does		5.45	6.17		
2	14.52	14.93	12.50	12.50	Not		7.68	8.70		
3	16.75	17.19	11.07	11.07	Submit		12.73	14.22		
4	15.78	15.94	12.42	13.39			19.26	27.66		
2000 1	15.97	16.12	12.86	12.86			17.99	19.92	Does	
2	17.04	16.89	12.08	12.08			19.16	21.11	Not	
3	18.91	17.84	10.42	10.42			15.60	17.16	Submit	
4	21.18	21.18	11.44	11.44			11.29	11.29		
2001 1	20.25	20.25	10.98	10.98			11.99	11.99		
2	21.20	21.20	11.77	11.77			8.66	8.66		
3										
4	21.30	21.30	10.60	10.60			15.84	15.84		
2002 1										
2	22.10	22.10	9.26	9.26			13.60	13.60		
3										
4										

[a]Actual.

[b]Adjusted.

Source: Pennsylvania Public Utility Commission, Bureau of Fixed Utility Services *Report on the Quarterly Earnings of Jurisdictional Utilities for the Period Ended June 30, 2002*, October 14, 2002.

modification or revision to the Plan. The procedures set forth at 66 Pa. C.S. Section 3004 (applicable to new Plan) shall apply . . . Procedures applicable to the review and approval of the initial plan, as set forth at

> 66 Pa. C.S. Section 3004(b), shall also apply to such subsequent modifications or revisions, if any, of this Plan.[10]

Bell and Commonwealth's approved petitions do not include the above language, but they have no end-date or sunset date in their petitions, and hence would remain in effect even if Chapter 30 were to expire.

The alternative regulation petitions approved by the PUC assure that consumers are not exposed to the additional costs associated with accelerated deployment of a broadband-capable telecommunications network (unless they choose to purchase non-basic services that are available as a result of the modernized network). Several of the PUC-approved petitions (Commonwealth, Frontier, GTE, Ironton, Kecksburg, Small Company Group—Plan A and B[11] companies, TDS Telecom, United/Sprint) include provisions addressing what would occur if the PUC elects to move away from alternative regulation and revert back to rate of return regulation. Commonwealth's petition, for example, indicates:

> . . . In the event of the reinstitution of any form of rate base/rate of return regulation of the Company, any impact of such changes in depreciation reserve or expense which occur during the period of the operation of this Plan shall be captured and recognized as a debit (or credit) in the ratemaking formula.[12]

The reintroduction of rate of return methodologies, therefore, could result in the "undoing" of important consumer protections offered by Chapter 30's alternative forms of regulation. As discussed above, however, the PUC has the authority, even without Chapter 30, to continue alternative forms of regulation.

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[10]*Petition of ALLTEL Pennsylvania, Inc. for Approval of an Alternative Form of Regulation and Network Modernization Plan*, Dated June 30, 2000, as modified January 22, 2001, pp.39-40.

[11]Plan B companies at their option can elect alternative regulation as approved by the PUC for Plan A companies.

[12]*Petition for Alternative Regulation and Network Modernization Plan of Commonwealth Telephone Company, Final Alternative Regulation Plan of Commonwealth Telephone Company*, June 27, 1997, p.29.

M. Most Telephone Customers in Pennsylvania Have Not Experienced Local Rate Increases as a Result of Chapter 30's Alternative Regulation

Under Chapter 30's alternative forms of regulation, the revenues resulting from tariff rates for intrastate noncompetitive services are controlled. Companies are not permitted to retain revenues above their revenue price cap. The revenue price cap for each company is determined by the application of the company's price stability formula, discussed in Finding L.

When company revenues are above the company's revenue price cap, the PUC approved Chapter 30 petitions require the company to reduce rates for intrastate noncompetitive services (to the level of the approved revenue price cap). Alternatively, if revenues are below the allowed revenue price cap, the PUC can permit the company to file tariffs to increase noncompetitive service rates up to the amount of the allowed revenue price cap.

The filings companies make to the PUC to increase or decrease rates as a result of the operation of their alternative regulation are referred to as "price change opportunity" or "price stability index" filings. The following companies have submitted filings that have been acted on[1] by the PUC as of April 2003:

- ALLTEL,
- Bell Atlantic-Pennsylvania,
- Commonwealth,
- Buffalo Valley,
- Conestoga,
- Denver and Ephrata,
- Frontier Companies,
- Ironton,
- Kecksburg,
- TDS Companies,
- North Pittsburgh, and
- United/Sprint.

LECs' Price Change Opportunity or Price Stability Index Filings

The largest company, Bell, had eight filings from 1995 through 2002. Bell's filings have resulted in reduced revenues for Chapter 30 noncompetitive services,

[1]As of April 22, 2003, the PUC had pending filings from Bell, Commonwealth, Frontier, Kecksburg, and Ironton. ALLTEL, Buffalo Valley, Conestoga, Denver and Ephrata, and North Pittsburgh had also notified the PUC that they would submit their next PSI filing on April 30, 2003.

with only one exception. Bell estimates that the cumulative effect over time of such reduced revenues are equivalent to $350 million. The one exception occurred with the 2000 filing, and resulted from the PUC's Global Order.

In the Global Order, the PUC required Bell to use Price Change Opportunity (PCO) revenues from 1999, 2000, and 2001 that were above the company's revenue price cap to reduce access charges and support the establishment of a state universal service fund. (Finding N provides additional information on access charge reductions and the state fund.) The Global Order also noted that if Bell's PCO available revenues did not equal the amount projected by the PUC, the discrepancy would be reconciled consistent with the company's approved Chapter 30 petition and plan. Sufficient revenues were not available to cover the full costs of the access rate reductions the PUC had ordered. In April 2002, the PUC, therefore, authorized a $10.4 million per year increase on a prospective basis for the following noncompetitive services: Residence—Directory Assistance, Call Waiting, Caller ID—Number Only, Return Call, Three-Way Calling, and Call Trace; Business—Call Forwarding, Call Waiting, Priority Call, Return Call, Select Call Forwarding, and Call Trace.[2]

Eighty-seven percent of the revenues (from 1995 through 2002 PCO filings) that Bell had available through Chapter 30's alternative regulation to reduce rates for noncompetitive services have been used to reduce access charges paid by interexchange and other carriers. Access is a protected, noncompetitive Chapter 30 services. As a result of such reductions, consumers benefit to the extent that interexchange and other carriers pass along their reduced costs to consumers for message toll services. The remainder of the revenues that Bell had available have been used to directly reduce rates for residence and business local services and to provide partial support for the company's Lifeline program.[3] The PUC ordered the creation of such a program on a revenue neutral basis when it approved the company's Chapter 30 alternative regulation petition.

For companies other than Bell, Price Stability Index filings have typically resulted in rate increases, but they have been modest. The PUC approved:

- ALLTEL increasing its per line local service rates between $0.10 and $0.25 cents per month and increasing monthly charges for various residential optional calling features (Call Forwarding, Call Waiting, 3-Way Calling, Basic Package, and Caller ID Package) in June 2002.[4]

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[2]*Pennsylvania Public Utility Commission v. Verizon Pennsylvania, Docket No. R-00027152*; Order entered April 24, 2002.

[3]Appendix N provides information on the company's Lifeline program.

[4]*Pennsylvania Public Utility Commission v. ALLTEL Pennsylvania, Inc., Docket Nos. R-00027231, R-00027231C0001, R-00027231C0002, R-00027231C0003, R-00027231C0004, and R-00027231C0005*; Order entered June 27, 2002.

- Commonwealth increasing basic local dial tone service rates by $0.21 per month in April 2002.[5]

- Buffalo Valley increasing basic local dial tone service rates by $0.11 per month in June 2002.[6]

- Conestoga increasing basic local dial tone service rates by $0.12 per month in June 2002.[7]

- Denver & Ephrata increasing basic local dial tone service rates by $0.16 per month, and decreasing High Capacity Intraexchange and High Capacity Interexchange Channel rates by $1.00 per month.[8]

- Ironton's increasing its average local service price by $0.27 per month in June 2002.

- North Pittsburgh eliminating the 5 percent, 10 percent, and 15 percent discounts given to customers who make between $5.00 and $21.74 in IntraLATA toll calls each month and increasing the qualifying monthly usage for the 20 percent discount from $20.00 to $21.75.[9]

The Kecksburg and the Frontier companies' submitted price stability mechanism filings that have been accepted by the PUC. Such filings have not resulted in rate increases.

The TDS companies have submitted several filings to the PUC. In December 2002, the company provided a one-time credit to its consumers as a result of the company's 1998 price cap index calculations. The refund totaled approximately $25,000, and occurred as a result of the companies' price stability "banking" provisions which permits the companies to "bank" the available revenues for up to four years.[10]

United/Sprint has also had one Price Stability Index filing, though its customers did not experience a rate increase as a result of the filing. In October 2002, the PUC approved the filing allowing the company to utilize the revenues above its approved PSI to reduce its carrier charge from $7.78 to $7.59 per access line per month to provide for a per minute access charge of $0.10.

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[5]*Pennsylvania Public Utility Commission v. Commonwealth Telephone Company, Docket Number R-00027125*; Order entered April 24, 2002.
[6]Supplement No. 31 to Tariff-Telephone Pa. P.U.C. No. 7, June 24, 2002.
[7]Supplement No. 180 to Tariff Telephone-Pa. P.U.C. No. 10, June 24, 2002.
[8]Supplement No. 229 to Tariff Telephone-Pa. P.U.C. No. 15, June 24, 2002.
[9]Supplement No. 2 to Tariff-Telephone Pa. P.U.C. No. 13, June 27, 2002.
[10]Banking provisions promote efficiency and eliminate the need to administer small changes (increase or decreases) to rates each year as a result of the application of the company's price cap formula.

Chapter 30 has not resulted in significant consumer rate increases as a result of its alternative form of regulation and the application of the revenue price cap formulas. Customers of several mid-size and small companies, however, have seen sizable increases in their local telephone rates as the result of Chapter 30 requiring and promoting reductions in access charges, and the PUC's Global Order further requiring such reductions. To accomplish such reductions, Chapter 30 authorized the PUC to permit "rate rebalancing" and to approve rate rebalancing in LEC Chapter 30 petitions. Chapter 30's requirements for access charge reductions and its provisions concerning rate rebalancing are discussed in detail in Finding N.

N. Chapter 30 Required Reductions in Intrastate Access Rates That Have Resulted in Increased Local Rates

Chapter 30 required that its access rates requirements be met in order for the PUC to approve a local exchange carrier's petition for alternative regulation and network modification.[1] Part of the costs consumers pay for toll services involve the payment of access rates. Consumers, however, may not be aware of such payments since they do not pay them directly.

"Access charges" [2, 3] refer to a variety of payments interchange carriers (IXCs) and local exchange carriers (LECs) make to other LECs to initiate and complete toll calls. Such payments are intended to cover local telephone network costs when customers place and receive interstate and intrastate toll calls over the local network. Historically, such payments between carriers have served as major indirect subsidies to keep basic local telephone rates low in Pennsylvania and nationally.

Prior to the start of competition in telecommunication markets and the AT&T divestiture from the Bell System, a portion of the cost of the local telephone network was simply assigned to interstate services regulated by the Federal Communications Commission (FCC), and such costs were included in AT&T's interstate long-distance rates. Similarly, state public utility commissions assigned a portion of the costs of the local telephone network to the rates established for intrastate toll calls. Such methods, however, were no longer workable with the development of competition for toll services and the AT&T divestiture. The FCC, therefore, started to promulgate uniform rules[4] to establish access rates for interstate long distance services.

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[1]66 Pa.C.S.A. §§3004(d)(a); 3007.

[2]There are two distinct types of access services: special access and switched access. Both are protected telephone services and defined in Chapter 30. Chapter 30 defines special access service as service provided over dedicated nonswitched facilities by local exchange telecommunications companies to interexchange carriers or other large volume users which provide connection between an interexchange carrier or private network and a customer's premises. Chapter 30 defines switched access service as service which provides for the use of common terminating, switching and trunking facilities to a local exchange telecommunications company's public switched network. The term includes, but is not limited to, the rates for local switching, common and dedicated transport and carrier common line charge.

[3]Switched access rate charges consist of several major rate elements. Traditionally, these include: Carrier Common Line Charge, Local Switching, Line Termination, Intercept, and Local Transport. The Carrier Common Line Charge (CCLC) is the only intrastate-switched access rate element designed to recover what are referred to as "NTS costs." "NTS costs" are those costs of facilities used for both interstate and intrastate traffic that do not vary with the amount of traffic carried over the facilities, thus the costs are "non-traffic sensitive." Historically, the rate for intrastate CCLC had been charged on a per-minute of use basis (MOU), rather than as a flat per line rate. As a result, it was the largest contributor to local service rates not directly related to costs, though rate elements based on minute of use have also been priced above costs, according to the PUC.

[4]Current FCC rules related to the establishment of access charges can be found in 47 C.F.R. Part 32 (which addresses expenses, investments, and revenues), Part 64 (which addresses division of costs between regulated telecommunication services and non-regulated activities), Part 36 (which addresses the allocation of costs across jurisdictions), and Part 69 (which provides in detail the rate structure for recovering access costs).

Federal Communications Commission's Access Charge Reforms

In 1983, when the FCC first established uniform rules for determining interstate access charges, it decided that costs for interstate access charges should be recovered in the same way that they are incurred (because this approach is consistent with the principles of cost-causation and promotes economic efficiency). Thus, FCC rules promoted the recovery of "traffic sensitive costs" based on per-minute of use access rates and the recovery of "non-traffic sensitive costs" (such as those associated with the local telephone loop) through fixed, flat rate fees.

The FCC also determined that interstate access costs should be recovered from end-users. As a result, each customer's local telephone bill now lists a Federal Subscriber Line Charge (sometimes referred to on customer local telephone bills as a "Federal Line Cost Charge," "FCC Charge for Network Access," "Interstate Access Charge," "Federal Access Charge," Interstate Access Charge," "Customer Line Charge," or "FCC-Approved Customer Line Charge") to cover part of the "non-traffic sensitive costs" of the local phone network when handling interstate toll calls.

Because of concerns about telephone service remaining affordable, the FCC exercised certain caution in implementing the principles it adopted in its rules, and took measured steps in reforming access charges. It, therefore, limited the amount of the allocated local loop interstate cost that can be assessed directly on residential and business customers by way of a flat monthly fee, and caps the maximum price of the Federal Subscriber Line Charge.[5]

One result of the FCC's Subscriber Line cap has been that some costs that did not vary with usage, in particular the costs associated with the use of the local loop for interstate calls, were not wholly recovered through flat charges imposed on consumers. Local exchange carriers, therefore, recovered the shortfall created by the caps through carrier common line (CCL) charges, which were typically a per-minute charge assessed on the customer's IXC whenever the customer placed an interstate call. The IXC then passed on the charge to its customers in the form of higher rates, thus artificially suppressing demand for long distance services and creating an implicit subsidy of low-volume, long-distance toll service users by high volume users.[6]

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[5]The PUC has no jurisdiction over the amount of the Subscriber Line Charge (SLC). It is determined by the FCC not by the PUC, even though the charge appears on a customer's local telephone bill.

[6]Historic information on FCC access charge reforms can be found in the FCC's *Sixth Report and Order in CC Docket Nos. 96-262 and 94-1 Report and Order in CC Docket No. 99-249 Eleventh Report and Order in CC Docket No. 96-45*, released May 31, 2000, FCC-00193.

Access Charge Reform in Pennsylvania

After the FCC initiated access charge reforms in the 1980s, the Pennsylvania Public Utility Commission started to examine similar issues related to intrastate access charges. During the late 1980s, the PUC was reluctant to substantially reduce intrastate access rates to align them with their costs. It was also reluctant to restructure intrastate access rates to mirror the rate structure the FCC had adopted because it recognized that such changes would create pressures to increase local exchange rates.[7]

Residual Pricing and Its Consequences. Such pressures would occur as a direct result of the methods the PUC, and other state commissions, use to establish local telephone rates so as to provide for universal telephone service. When telephone services were provided in a monopoly environment, utility regulators employed a method known as "residual pricing" to establish the price of basic local telephone services. Using such a method, public utility commissions priced access, toll, and local vertical services (i.e., call waiting, call forwarding, etc.) at rates well above their costs, but at prices that the market would bear, in order to keep basic local exchange telephone service rates affordable.

In 1999, the PUC explained the effect of residual pricing in Pennsylvania:

> Access charges provide a significant source of ILEC [incumbent local exchange carrier] earnings and contain implicit and explicit subsidies for local rates. This combination of earnings and subsidy was approved pursuant to a public policy of encouraging universally available and relatively affordable telecommunications services while providing earnings sufficient to attract stable investment in a national telecommunications infrastructure. Consequently, public policy over time has resulted in a situation wherein higher cost areas, such as rural areas, with lower density cell rates and longer loop distances, obtain rate support from lower cost areas, such as urban areas with higher density cell rates and shorter loop distances. Access charges provide a source of earning while keeping basic local service rates lower than might otherwise be the case in high cost areas . . . .[8]

The PUC further noted:

> The record accumulated . . . demonstrates that current ILEC access charges are priced substantially above cost, and that in order to

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[7]*Petition Requesting the Commission to Institute a Generic Investigation Concerning the Development of Intrastate Access Charges, Docket No. P-830452;* Order entered August 9, 1985.
[8]Global Order, *Docket Nos. P-00991648, P-00991649*; Order entered September 30, 1999, p. 11.

> maintain fair toll competition in Pennsylvania the current access charges . . . need to be reduced and restructured. . . .[9]

Along with message toll services, access services provided a major source of subsidy for local rates. For small rural companies, intrastate access charges represent from 25 percent to 40 percent of a company's total intrastate revenues, according to experts for the Rural Telephone Company Coalition.[10]

Early Efforts. Following the AT&T divestiture, and prior to Chapter 30, the PUC took several initial steps to reform access charges in Pennsylvania. In January 1988, for example, the PUC initiated a formal investigation to address issues related to the IntraLATA Toll Originating Responsibility Plan (ITORP)—Pennsylvania's plan that was introduced to employ the intrastate toll settlement arrangements in place between LECs after the AT&T divestiture. The issues to be addressed included local telephone companies' intrastate earnings deficiencies resulting from the change from the pre-AT&T divestiture settlement processes.

In December 1988, to provide an interim solution for the immediate problems faced by small companies as a result of their earnings deficiencies, the PUC approved the institution of the Pennsylvania Toll Fund Plan (PTF). The PUC ordered the PTF become effective February 1, 1989, and expire upon completion of the ITORP Investigation, or on January 31, 1992.

The PTF was established with contributions from all interexchange carriers and local exchange carriers with 20,000 or more access lines. Those eligible to receive money from the fund were local exchange carriers with less than 20,000 access lines that had capped their carrier common line charge on a per access line per month basis and had passed a needs test (based on earnings and the company's return on equity). The PUC capped the amount of funding a recipient could receive from the fund.

The PUC reluctantly extended the PTF through a series of orders in response to requests from the Pennsylvania Telephone Association (PTA). The PTA had continued to request that the PTF be extended in part because resolution of the problem involved restructuring and rebalancing of local, toll, and access rates. The rate case process, however, was burdensome and costly,[11] and a disincentive for rate reform. With the enactment of Chapter 30 and the opportunity it presented for access charge reform and rate restructuring and rebalancing, the PUC refused to extend the PTF beyond June 30, 1995. In its December 1994 order terminating the PTF, the PUC noted:

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[9]Global Order, p. 18.
[10]Global Order, p. 51.
[11]See Finding A.

In our opinion, continuation of the PTF is not in the spirit of the General Assembly's policy since the PTF provides for subsidization which appears to keep local exchange services, and maybe even toll service, at rates below levels than would have been otherwise. Therefore, we maintain the position which we articulated in our [June 1993 order], that 'we believe this subsidy must end in light of the advent of competition into various telephone service markets.'

. . . With the development of competition and the arrival of alternative LECs in the local exchange marketplace in Pennsylvania, we believe it is the responsible LEC that strives to gradually realign its rate structure toward cost instead of rely on subsidization by other LECs and IXCs. A subsidy plan such as the PTF may hinder local competition because it will be difficult for alternative LECs to compete against the primary LECs that charge subsidized prices to their customers.[12]

In addition to terminating the PTF in its December 1994 order, the PUC directed that as part of its Universal Service Investigation, the investigation should consider if a "true need," in the words of the commission, exists for an intrastate Universal Service Fund. If such a need exists, the PUC directed that a recommendation should be made concerning the "best structure of the Universal Service fund to ensure that such a fund is provided on a neutral nondiscriminatory basis."

Chapter 30 Access Charge Reform Requirements

When the General Assembly enacted Chapter 30 in 1993, it required and provided a process to achieve reductions in intrastate access charges and restructure local rates. Specifically, Chapter 30 provides that in order for the PUC to approve an LEC's Chapter 30 petition and plan, an LEC:[13]

- Must have a per-minute switched-access service price for originating and terminating toll calls that does not exceed 12 cents for the first five years from the implementation date of the LEC's Chapter 30 petition and plan.
- Whose switched-access rates are greater than 12 cents a minute, must reduce per-minute switched-access rates to 12 cents through revenue-neutral rate restructuring and rebalancing over a three year period

[12] *Investigation Regarding the IntraLATA Toll Originating Plan, Docket No. I-00870076;* Order entered December 21, 1994.
[13] 66 Pa.C.S.A. §3004(d)(9).

starting from the implementation date of the LECs' Chapter 30 petition and plan.[14]

- Whose switched access rates are at or below 12 cents per minute, must not increase its per-minute switched-access service price for four years from the date of the approval of the LEC's Chapter 30 petition and plan.
- Whose revenue from the carrier common line charge had been capped at a specified amount, would remain capped at that amount.

In addition, Chapter 30 provided for the PUC to evaluate the consistency of intrastate access tariff rates and structures with interstate rates and allowed an LEC to:

- Submit for PUC approval both revenue and competitive neutral, tariff rate changes and to restructure their tariffs in order to make their access rates and structures consistent with interstate access tariff rates and structures.[15]

Chapter 30 only required that companies with more than 250,000 access lines in Pennsylvania comply with its access charge provisions. In 1994, the PUC reported that three companies—Bell Atlantic-Pennsylvania, GTE North, and United Telephone/Sprint—had more than 250,000 access lines.[16]

As part of its efforts to address access charge reform prior to Chapter 30's enactment, the PUC imposed caps on the amount of revenues large companies, such as Bell, could earn from carrier common line charges. As a result of the cap on Bell's carrier common line charge, the problem of access rates subsidizing local rates would not be further exacerbated as a result of any growth in the number of company access lines. In 1993, Bell's switched access rate was $ 0.018217 per minute of use.[17] Bell's approved Chapter 30 alternative regulation petition and plan states that "in accordance with 66 Pa.C.S.A. Section 3007 (2), the Plan prohibits switched access rate increases until December 31, 1999, unless Bell can show that, absent an increase, total switched access revenues would be below total switched access cost."[18] As a result, in 1993 and at present, Bell's switched access rate is significantly lower than the rates of other LECs.

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[14]The act requires the PUC to review the per-minute switched-access service price six years after the implementation date of the LEC's plan and to determine, after notice and hearing, a just and reasonable per-minute switched-access service price. 66 Pa.C.S.A. §3007(1).

[15]66 Pa.C.S.A. §3007(3).

[16]Pennsylvania Public Utility Commission, *Report to the Governor and General Assembly, Chapter 30 of the Public Utility Code, Alternative Form of Regulation of Telecommunications Services*, July 8, 1995.

[17]Pennsylvania Public Utility Commission, *Report to the Governor and General Assembly, Chapter 30 of the Public Utility Code, Alternative form of Regulation of Telecommunications Services*, July 8, 1995.

[18]Bell Atlantic-Pennsylvania, Inc.'s *Alternative Regulation Plan (modified in compliance with the Commission's Opinion and Order entered June 28, 1994)*, July 27, 1994.

Prior to Chapter 30, however, the PUC had not imposed a cap on United/ Sprint's access revenues. When the company submitted its Chapter 30 petition and plan to the PUC in 1998, therefore, its per-minute switched access rate was over 15 cents per-minute.

In order to comply with Chapter 30's requirements, United/Sprint's July 1999 Chapter 30 petition and plan includes provisions for basic service enhancements (e.g., touch tone service, elimination of multi-party line service, etc.) and rate rebalancing to accomplish access rate reductions. The PUC approved rate rebalancing provisions permit United/Sprint to increase basic residential rates each year for three years by $1.00 per month (and basic business rates by $0.50 per month) in order to reduce switched access rates from $0.152542 to $0.119965 over the same three-year period. Such "revenue neutral" changes were anticipated to result in residential and business customers paying approximately $20 million more for basic local services over the three-year period and a $16 million reduction in access revenues over the same period. United/Sprint's approved Chapter 30 petition and plan and the PUC's Global Order also provided opportunities for further reductions in the company's access rates. Such reductions are discussed below.

In Chapter 30 proceedings, the PUC did not limit application of Chapter 30's statutory access rate reduction provisions only to large companies. With the introduction of competition into telecommunications markets, message toll service carriers needed to be able to compete, and with the enactment of TA-96, smaller companies also needed to position themselves to be competitive. The PUC, therefore, authorized specific rate rebalancing and restructuring to reduce access (and message toll service) rates in all company Chapter 30 alternative regulation petitions and plans, with the exception of Bell. Exhibit 17 lists company rate rebalancing and restructuring provisions in the approved petitions and plans. The reader should note that the provisions for local rate increases do not in all cases indicate that increases actually occurred, or that they occurred up to the allowed level. (Information on local rate increases that have resulted from company Chapter 30 restructuring and rebalancing based on documentation the PUC provided to the LB&FC are discussed later in this section.)

Exhibit 17

Specific Rate Rebalancing and Restructuring Provisions in PUC Approved Chapter 30 Petitions and Plans

Company	Specific Rate Rebalancing Provisions
ALLTEL Pennsylvania	➢ In addition to any Price Stability Mechanism filing (see Finding L), and any exogenous event filing, the company may propose to implement one revenue neutral rate restructuring/rebalancing filing in a calendar year that increases protected basic residential and basic small business local service rates. ➢ Pursuant to the Global Order and the institution of the Pennsylvania Universal Service Fund (which is projected to terminate on December 31, 2003), the company retains the right to change and rebalance its intrastate rates in accordance with its Chapter 30 petition and plan. The PUC must approve tariff filings to rebalance rates if such filings result in rates that are just and reasonable, and if they do not exceed the $16.00 monthly residential rate ceiling and applicable business rate ceiling established in the Global Order for the duration of the Pennsylvania USF. (The company is permitted to recover the revenue difference arising from application of the Global Order rate ceilings from the Pennsylvania USF.) ➢ The rate restructuring and rebalancing filings may be approved, if they are just and reasonable and if through any combination of filings, they do not cause protected basic local service rates to increase more than $3.50 per month over the rates in existence at the end of the prior year. (This cap does not apply when a generic Commission Order requires changes in a company's rate design.) ➢ The company may also implement tariff rate changes to address current industry issues, (e.g. issues addressed in the Global Order).
Bell Atlantic-Pennsylvania (Verizon-PA)	➢ The approved petition and plan includes general provisions that allow the company to request the PUC to permit revenue neutral tariff rate changes to implement access charge reforms and a Lifeline program.[a]
Commonwealth	➢ In addition to any Price Stability Mechanism filing, and any exogenous event filings, the company may propose to implement one revenue neutral rate restructuring/rebalancing filing in a calendar year that increases basic residential and single line business rates. ➢ Such rate increases cannot exceed the level determined by the Commission to be affordable pursuant to the Universal Service or successor docket. In the event the Commission does not establish an affordable rate, the company's proposed basic local service rates may not exceed the cost of providing such services. ➢ The rate restructuring and rebalancing tariff filings increasing basic local service rates may be approved if they are just and reasonable and if the proposed changes do not result in a rate increase in excess of 40 percent of the rates in existence at the end of the preceding year or $3.50 per month, whichever is higher. ➢ The company may also implement tariff rate changes resulting from Commission orders involving generic industry issues, (e.g. intraLATA presubscription and Universal Service).

[a]On January 10, 1996, Bell Atlantic-Pennsylvania filed tariff revisions proposing to restructure and rebalance its residential local and toll service rates, business local and toll service rates, and switched access rates. The PUC for the most part rejected the company's proposals. The PUC, however, indicated that it would approve tariffs reducing Local Transport Access Service Rates and increases in non-competitive, non-protected services, such as Metropolitan Area Unlimited Plus Service, Terminating Feature Group A, Residential Return Call, Business Return Call, Calling Card Surcharge and Business Remote Call forwarding services, so as to yield a combined revenue neutral offset to allow for the access rate reduction. See PUC Docket No. R-00963500, Order entered December 16, 1996.

Exhibit 17 (Continued)

Company	Specific Rate Rebalancing Provisions
Five Frontier Companies	➢ In addition to any annual Price Stability Mechanism filing, and any exogenous event filings, the company may propose to implement one revenue neutral rate restructuring/rebalancing filing that increases residential and single line business rates. ➢ The rates for such services cannot exceed the level determined by the Commission to be affordable pursuant to the Universal Service or successor docket. In the event the Commission does not establish an affordable rate, basic local service rates may not exceed the cost of providing such services. ➢ The rate restructuring and rebalancing tariff filings may be approved if they are just and reasonable and if they do not result in a local rate increase in excess of 40 percent of the rates in existence at the end of the preceding year or $3.50 per month, whichever is higher. ➢ The company may also propose to implement tariff rate changes that result from Commission orders involving generic industry issues, (e. g. intraLATA presubscription, and Universal Service).
GTE North (Verizon North)	➢ In addition to any Price Stability Mechanism filing, and any exogenous event filings, the company may propose to implement one revenue neutral rate restructuring/rebalancing filing in a calendar year which increases basic local exchange service rates. ➢ Such rate increases cannot exceed the level determined by the Commission to be affordable pursuant to the Universal Service or successor docket. (The Global Order established an affordability rate of $16.00 for basic residential service.) ➢ Rate changes under rate restructuring and rebalancing may be approved if they are just and reasonable and if they do not cause an increase to basic local rates in excess of $3.50 per month to the rates in existence at the end of the preceding year, and are consistent with the Memorandum of Understanding and the Commission order approving the Verizon parent level merger. ➢ The company may also propose revenue neutral tariff rate changes to implement the result of Commission orders involving generic industry issues. ➢ The company may make rate decreases at any time.
Ironton	➢ In addition to any Price Stability Mechanism filing, and any exogenous event filings, the company may propose to implement one revenue neutral rate restructuring/rebalancing filing in a calendar year that increases residential and single line business rates. ➢ Such rate increases cannot result in rates that exceed the level determined by the Commission to be affordable pursuant to the Universal Service or successor docket. In the event that an affordable rate is not established by the Commission, basic local service rates may not exceed the cost of providing such service. ➢ The rate restructuring and rebalancing tariff filings increasing basic local rates for residential and small business customers may be approved if they are just and reasonable and if through any combination of filings (e.g. rebalancing, price cap or price stability formula filing, exogenous events) the proposed changes do not result in a local rate increase in excess of 25 percent of the rates in existence at the end of the preceding year, or a $2.50 per month increase, whichever is higher. (This cap shall not apply when a generic Commission Order requires changes in a company's rate design that causes a rate increase.) ➢ The company may also propose tariff rate changes to implement the results of Commission Orders involving generic industry issues, (e.g. intraLATA presubscription, Universal Service, number portability).

Exhibit 17 (Continued)

Company	Specific Rate Rebalancing Provisions
Kecksburg	➢ In addition to any Price Stability Mechanism filing, and any exogenous event filings, the company may propose to implement one revenue neutral rate restructuring/rebalancing filing in a calendar year which increases basic residential and single line business rates. ➢ The rates for services cannot exceed the level determined by the Commission to be affordable pursuant to the Universal Service or successor docket. In the event the Commission does not establish an affordable rate, basic local service rates may not exceed the cost of providing such services. ➢ Rate restructuring and rebalancing tariff filings increasing basic local rates for residential and small business customers may be approved if they are just and reasonable and if through any combination of filings (e.g. rebalancing, price cap or price stability formula filing, exogenous events) the proposed changes do not result in a local rate increase in excess of 25 percent of the rates in existence at the end of the preceding year, or a $2.50 per month increase, whichever is higher. (The cap shall not apply to a generic Commission Order requiring changes in the Company's rate design causing a rate increase that exceeds the cap.) ➢ The company may propose tariff rate changes to implement the results of Commission Orders involving generic industry issues, e.g. intraLATA presubscription, Universal Service, number portability.
Small Company Group--Plan A	➢ In addition to any Price Stability Mechanism filing, and exogenous event filings, the company may propose to implement one revenue rate restructuring/rebalancing filing in a calendar year increasing basic residential and small business (three lines or less) rates. ➢ Pursuant to the Global Order and the institution of the Pennsylvania Universal Service Fund (which is projected to terminate on December 31, 2003), the company retains the right to change and rebalance its intrastate rates in accordance with its approved Chapter 30 petition and plan. The PUC must approve tariff filings to rebalance rates if such filings result in rates that are just and reasonable, and if they do not exceed the $16.00 monthly residential rate ceiling and applicable business rate ceiling established in the Global Order for the duration of the Pennsylvania USF. (The company is permitted to recover the revenue difference arising from application of the Global Order rate ceilings from the Pennsylvania USF.) ➢ The rate restructuring and rebalancing tariff filings may be approved if they are just and reasonable and if by any combination of filings, they do not result in an increase in the rates in existence at the end of the preceding year greater than $3.50 per month. (The cap shall not be applicable where a generic Commission Order requires changes in a Company's rate design that causes a rate increase exceeding the cap.) ➢ Company may propose tariff rate changes to implement results of Commission orders involving generic industry issues.
Small Companies--Plan B	➢ In addition to any Price Stability Mechanism filing, and exogenous event filings, the company may propose to implement one revenue neutral rate restructuring/rebalancing filing in a calendar year that increases residential and small business rates (three lines or less). Pursuant to the Global Order and the institution of the Pennsylvania Universal Service Fund (which is projected to terminate December 31, 2003), the company retains the right to change and rebalance its intrastate rates in accordance with its approved Chapter 30 petition and plan. The PUC must approve tariff filings to rebalance rates if such filings result in rates that are just and reasonable, and if they do not exceed the $16.00 monthly residential rate ceiling and applicable business rate ceiling established in the Global Order for the duration of the Pennsylvania USF. (The company is permitted to recover the revenue difference arising from application of the Global Order rate ceilings from the PA USF.)

Exhibit 17 (Continued)

Company	Specific Rate Rebalancing Provisions
Small Companies--Plan B (Continued)	➢ The rate rebalancing and restructuring tariff filings may be approved if they are just and reasonable and if by any combination of filings, they do not result in an increase in the rates in existence at the end of the preceding year greater than $3.50 per month. (The cap shall not be applicable where a generic Commission Order requires changes in the company's rate design and causes a rate increase exceeding the cap.) ➢ Company may propose tariff rate changes to implement results of Commission Orders involving generic industry issues.
TDS Telecom Companies	➢ In addition to any Price Stability Mechanism filing, or exogenous event filings, the company may propose to implement one revenue neutral rate restructuring/rebalancing filing in the calendar year. ➢ The company shall submit cost support with any rate restructuring or rebalancing filing. ➢ The company may not submit a rate restructuring and rebalancing filing until two years have expired from the date the Commission enters an order approving the company's petition and plan unless the filing is required due to exogenous events or subsequent regulatory changes at the federal or state level. ➢ The total change in residential and small business customer (three lines or less) rates resulting in any calendar year from operation of the Price Stability Mechanism, any exogenous event, and/or rate restructuring/rebalancing, shall not exceed in the aggregate an increase of 20 percent per year. (Balances above the 20 percent per year may be banked in accordance with the approved petition and plan for use in subsequent filings.) ➢ The company may propose tariff rate changes to implement results of Commission Orders involving generic industry issues.
United/Sprint	➢ The company shall restructure its rates per a specific plan set forth in an attachment to the company's PUC approved Chapter 30 petition and plan (resulting from a settlement agreement between the company, OTS, OSBA, and OCA). ➢ The company shall rebalance its rates in order to reduce access rates to an effective switched access rate of $0.12 per minute of use. Basic monthly local residential rates will not increase by more than $1.00 per month in each of the three years following the PUC's approval of the company's Chapter 30 petition and plan, at the following points in time: within ninety days of the PUC's final approval of the petition and plan, one year later and two years later. ➢ Basic monthly local business rates will be allowed to increase by no more than $0.50 in the three years following the PUC's approval of the company's Chapter 30 petition and plan, at the following points in time: within ninety days of PUC approval of the petition and plan, one year later and two years later. All increases to the local business rate will be limited to not more than one-half of the increase permitted for local residential basic service rates. ➢ After the increases to local residential and business rates, the remaining access rate reductions to a switched access rate of $0.12 will be achieved at the discretion of the company through increases to rates for other non-competitive services in a revenue neutral manner. ➢ Through December 31, 2003, the company's residential local basic service rates shall not increase above a $16.00 weighted average rate cap. ➢ After December 31, 2003, the company shall be permitted to increase residential local basic service rates above $16.00 if (1) the Commission requires the company to charge a residential local basic service rate in excess of $16.00 in order to receive universal service funding, or (2) the Commission requires the company to reduce its access rates and the Commission determines that it would be just, reasonable, and affordable to increase residential basic service rates to fund all or a portion of such access reduction.

Exhibit 17 (Continued)

Company	Specific Rate Rebalancing Provisions
United/Sprint (Continued)	➢ The rate rebalancing under the approved Chapter 30 petition and plan shall be used to reduce the company's access rates to an effective switched access rate of $0.12 per minute of use. If the company receives funding as a result of the Global Telecommunications Settlement, any other Settlement, or Commission Order, the rate rebalancing proposal shall remain unaffected by such funding. Any Universal Service funding received by the Company shall be on a revenue neutral basis and shall be used to reduce access rates even further or to reduce other rates. ➢ The company may increase Directory Assistance rates. Any resulting increase in revenue must be offset by rate reductions in the first year of the plan.[b] ➢ Beginning in the year 2002, in addition to any Price Stability Mechanism filing and any exogenous event filings, only one rate restructuring/rebalancing filing can become effective in the same calendar year. ➢ Beginning in the year 2002, the rates that are established must be consistent with the rates for service established by the Commission in the Universal Service proceedings or any successor docket. In the event the Commission does not establish an affordable rate, exchange service rates may not exceed the cost of providing the service. ➢ The company may propose rate decreases at any time. ➢ The company may propose revenue neutral tariff rate changes to implement the results of Commission orders involving generic industry issues.

[b]On October 20, 2000, the company petitioned to have Directory Assistance designated a competitive service, and on January 24, 2001, the PUC approved the petition.

Source: Developed by LB&FC staff from PUC approved Chapter 30 petitions and plans.

As a result of such rate restructuring and rebalancing, customers of some companies have experienced relatively high local rate increases, despite efforts by the Office of the Consumer Advocate and the PUC Office of Trial Staff. In March 1999, for example, the PUC approved a settlement agreement among the Frontier Companies and the Office of Consumer Advocate, the Office of Trial Staff, and AT&T Communications of Pennsylvania providing for rate restructuring and rebalancing and access charge reductions under the five Frontier companies' Chapter 30 petition and plan. The settlement agreement provided for service enhancements (e.g., progression from multi-party service to one party service and the benefits of touch tone service) for some of the companies, local residential rate increases, and reduced access rates. The settlement agreement for one of the five companies (i.e., Frontier Communications of Pennsylvania) included possible local residential rate increases ranging from 64 to 87 percent (depending upon the specific local exchange) from 1998 through 2002 along with interLATA per minute access charge reductions of 53 percent and intraLATA reductions of 38 percent over the same period. At the time, Frontier Communications of Pennsylvania's existing rates were among the lowest in Pennsylvania.

As the above example illustrates, Chapter 30s "revenue neutrality" provisions do not mean that the price consumers pay for basic local telephone services will remain the same as a result of rate rebalancing. Rather they require that companies demonstrate that increases in local rates are accompanied by concomitant decreases in access rates and/or toll service rate.

LB&FC staff requested that the PUC provide rate rebalancing and restructuring filings associated with approved Chapter 30 alternative regulation petitions and plans that its staff identified. Exhibit 18 provides a listing of the rate rebalancing filings provided to the LB&FC that have been approved by the PUC.

Exhibit 18

PUC Approved Chapter 30 Rate Restructuring and Rebalancing

Company	PUC Approved Filing
ALLTEL Pennsylvania	6/27/02—PUC approved with the concurrence of the OCA and OSBA a monthly basic local exchange rate increase of $2.50 for residential customers and a $1.00 increase for business customers to offset a $1.74 monthly decrease in the monthly per line Intrastate Switched Access Carrier Common Line Charge (reducing it from $7.00 to $5.26).
Bell (Verizon-PA)	None.
Commonwealth	3/26/98—PUC approved a settlement agreement providing for revenue neutral rate rebalancing that included a combined local residential and business rate increase of $2.45 per month per access line. Revenue increases are used to offset reductions in rates for other noncompetitive services. More than 50 percent of the basic local service rate increase offsets access charge reductions. As part of the settlement, the company agreed not to file a rate rebalancing proposal or a PSM change which would result in an increase in basic local rates greater than $1.05 to become effective during calendar year 1998. The agreement also provided for service enhancements including the expansion of local calling areas for 83 toll routes. This expansion provided for a minimum local calling radius of 10 miles on Commonwealth-to-Commonwealth routes. The order provided that such change would be implemented without moving any exchanges to the next higher rate band and provided for other rate offsets.
Frontier Companies (i.e., Frontier Communications of Breezewood, Canton, PA, Lakewood, and Oswayo River)	11/5/97—Frontier companies filed their first post-Chapter 30 rate rebalancing containing access reductions of $82,284 that were approved by the PUC. 9/22/98—PUC approved Frontier's second Chapter 30 rate rebalancing and restructuring filing for Lakewood, Oswayo River, but not for Pennsylvania. (Pennsylvania's subsequently withdrew its 1998 rebalancing filing and combined its 1998 and 1999 rebalancing filings as part of the "access settlement agreement" discussed below.) 6/24/99—PUC approved an "access settlement" agreement dated 3/9/99 between the Frontier companies, the OTS, the OC A, and AT&T. The agreement reduces Frontier Companies' ARAMOU (average rate per access minute of use) from $0.06236585 as of 6/30/98 to $0.03400000 based on Chapter 30 rebalancing and restructuring filings for 1998, 1999, 2000, 2001, and 2002. The parties agreed that for the 1999 revenue neutral rate restructuring and rebalancing filing for Frontier Breezewood, Canton, Lakewood, and Oswayo River the average propose increase in basic residential and business local service rates not exceed $1.00 per month per access lines. (Breezewood, however, could propose to price residential and business two and four party service equal to residential and business one party service respectively, thus increasing rates by greater than $1.00. The Settling Parties agreed not to oppose such a change.) The parties agreed that for Frontier Pennsylvania, the average proposed increase in basic residential and business local service rates not exceed $3.00 per month per access line. (Frontier Pennsylvania, however, could propose to eliminate local measured business service, thus increasing certain rates by greater than $3.00. The Settling Parties agree not to oppose such a change.) The agreement also provides that residential one party rates shall not exceed $15.00 as a result of the 1999 rebalancing. The Frontier companies also agreed not to propose lower toll rates within the 1999 rebalancing and restructuring filing. 6/29/01—The PUC approved tariff filings that increased local services rates to offset access rate reductions consistent with the 6/24/99 "access settlement" agreement for Frontier Breezewood, Canton, Lakewood, and Oswayo River. It also approved Frontier Pennsylvania's filings for access and ITORP reductions, increases to basic local service rates to offset access rate reductions, increased rates for custom calling features, and decreased rates for local private line service. 7/1/02—The PUC approved consistent with the 6/24/99 "access settlement" rate rebalancing filings with reduction in access rates and no basic changes to local service rates for Frontier Breezewood, Canton, and Oswayo River. It also approved filings for Frontier Lakewood and Pennsylvania that included further access charge reductions and increases to basic local service rates.

Exhibit 18 (Continued)

Company	PUC Approved Filing
GTE (Verizon North)	None.
Ironton	6/24/02—PUC approved rate rebalancing and restructuring that increased local rates $0.76 per line per month. The revenues from increased local rates and certain non-recurring charges were used to reduce access and toll rates.
Kecksburg	None.
Small Company Group –Plan A	*Buffalo Valley* 6/21/02—PUC approved a rate rebalancing filing increasing basic local service rates and decreasing access rates. The exact increases and decreases are not specified in the PUC letter to the company allowing the tariff changes to go into effect. *Conestoga* 6/21/01—PUC approved a rate rebalancing filing reducing access rates and increasing business local service rates by $1.00 per month and residential local service rates by $2.50 per month. (The original proposal of $3.50 per month was reduced pursuant to an agreement with the OCA.) 6/24/02—PUC approved a rate rebalancing filing increasing basic local service rates and decreasing access rates. The exact increase and decreases are not specified in the PUC's letter to the company allowing the tariff changes to go into effect. *Denver and Ephrata* 11/30/01—PUC approved a rate rebalancing filing reducing the per month per line Intrastate Carrier Common Line Charge from $6.11 to $5.61 and decreasing various element of its intrastate access charges, and increasing basic local exchange rates $1.00 per month for business customers and $2.50 for residential customers. (The original proposal of $3.50 per month was reduced pursuant to an agreement with the OCA.) 6/24/02—PUC approved a rate rebalancing filing increasing basic local service rates and decreasing access rates. The exact increase and decreases are not specified in the PUC's letter to the company allowing the tariff changes to go into effect. *North Pittsburgh* 11/30/01—PUC approved a rate rebalancing filing reducing the company's per month per line Intrastate Carrier Common Line Charge from $7.00 to $4.98 and revising its current Intrastate Special Access rates and rate structure to mirror its Interstate rates and rate structure, and increasing monthly basic local exchange rates by $2.50 for residential customers and by $1.00 for business customers. (The original proposal of monthly rates of $3.50 and $1.40 was reduced following discussions with the OCA.)
Small Company Group—Plan B	None.
TDS Telecom	None.
United/Sprint	9/30/99—PUC approved a restructuring of rates and a $1.00 per line per month increase in residential rates ($0.50 for small business) and a reduction in access rates from $0.152542 to $0.135965 per minute. 11/8/00—PUC approved the company's rate rebalancing filing. The filing provides for an increase in interest charged to unpaid balances from .50% to .75% per month; increase to the return check charge from $7 to $25; an increase in monthly rates for optional features of signal ring and return call, advanced business connection, private line services, and two and four wire and mileage; an increase in special access rates to more closely align them with the company's interstate structure in order to recover reduced revenue from its 6/12/00 restructuring and reductions in ISDN PRI services. 4/3/01—PUC approved a $1.00 per line per month increase in residential rates ($0.50 for small business) to reduce the carrier charge from $0.036338 to $0.036078.[a]

Exhibit 18 (Continued)

Company	PUC Approved Filing
United/Sprint (Continued)	10/26/01—PUC approved rate rebalancing reducing the Carrier Charge from $0.041364 to $0.036831 per access minute and net increases of $0.25/month for business rates and $0.87/month for local residential rates.[a] 10/24/02—PUC approved a rate rebalancing to make rate changes between (1) intrastate traffic sensitive access charges and the Carrier Charge and (2) between the Carrier Charge and basic local and other service revenues. The rebalancing provided for reducing the intrastate traffic sensitive rates down to the company's interstate rates and shifting the revenue differential to the existing Carrier Charge. As a result, company traffic sensitive rates were reduced from $0.020520 per minute of access to $0.006175. This reduction resulted in an increase in the monthly Carrier Charge from $7.73 per line to $9.24 per line. In order to reduce the $9.24 per line per month Carrier Charge to $7.78 per access line, the company increased its monthly weighted average residential rates by $1.57 per month and business rates by $1.24 per month. Rates were also increased for other services, including foreign exchange, directory listings, calling features, ISDN, ATM. frame relay, and special access.

[a]United/Sprint reported to the PUC that in December 1999 it converted its carrier common line charge to a carrier charge in December 1999; however, its billing system was not capable of billing the flat carrier charge on a per-line basis. The Company sought and received permission to bill the carrier charge on a per-minute of use basis even though a carrier charge is a flat charge per line. Using the number of toll access minutes billed at the time, an applicable per-minute of use rate was developed equivalent to the flat carrier charge. Since the number of toll minutes was steadily declining, the Company had to make adjustments to the minute of use rate to recover the carrier charge. This is the reason for access charge increases associated with rate changes according to the Company. In May 2002, United/Sprint converted to per-line billing of a flat carrier charge.

Source: Developed by LB&FC staff from filings and additional information provided by the PUC.

PUC Global Order's Access Charge Reforms

Chapter 30's specific requirements for intrastate access charge reforms were not sufficient to align such charges to their actual costs, or to mirror interstate access rates and structures when the FCC initiated further interstate access reductions in January 1998. As shown in Exhibit 2 on page 34, moreover, most companies did not have approved Chapter 30 alternative regulation petitions and plans when the PUC initiated its Global Order proceeding to address issues that had arisen as a result of TA-96.

The PUC through its 1999 Global Order,[19] therefore, took steps to reduce access charges. It did so stating:

> Recognizing the vulnerability of implicit subsidies to competition, TA-96 requires that the FCC and states take the necessary steps to strive to replace the system of implicit subsidies with 'explicit and sufficient' support mechanisms to attain the goal of universal service in a competitive environment.[20]

In order to accomplish its goal of reducing access (and toll) rates to promote competition, the PUC turned to Chapter 30 and its revenue price cap formula and rate restructuring and rebalancing provisions. As described below, the PUC:

- Immediately ordered specific toll and access charge reductions and permitted certain local rate increases for all companies, including those that did not have approved Chapter 30 petitions. It further permitted companies to use Chapter 30's restructuring and rebalancing provisions to provide for additional access, toll, and local rate rebalancing up to the local service affordability cap identified in the Global Order.

- Created a temporary Pennsylvania Intrastate Universal Service Fund/Carrier Charge Pool to offset revenues lost as a result of the immediate toll and access rate reductions it ordered so as to prevent a precipitous rise in local rates.

- Relied on Bell's approved alternative regulation price cap formula to further reduce that company's access charges and help fund the Pennsylvania Intrastate Universal Service Fund/Carrier Charge Pool.

Specific Access and Toll Reductions Required by the Global Order. The PUC ordered companies that had not already to develop intrastate traffic sensitive

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[19]Global Order, *Docket Nos. P-00991648 and P-00991649*; Order entered September 30, 1999.
[20]Global Order, p.26. Appendices N and O provides information on the federal Universal Service program components and Pennsylvania's programs.

rates (including local transport) to mirror their approved 1998 interstate rates, restructure their common carrier line charge to a flat rate carrier charge and reduce it to an intrastate monthly rate of approximately $7.00 per line.[21] The PUC also ordered local companies that had not already to reduce their average per minute toll revenues to $0.09 per minute of use. As discussed below, in the Global Order the PUC established different requirements for United/Sprint.

Pennsylvania's Intrastate Universal Service Fund/Carrier Charge Pool. According to the PUC, Pennsylvania's Intrastate Universal Service Fund (USF) is:

> . . . A passthrough mechanism to facilitate the transition from a monopoly environment to a competitive environment—an exchange of revenue between telephone companies which attempts to equalize the revenue deficits occasioned by mandated decreases in their toll and access charges. For purposes of this Order, the word "fund" actually refers specifically to the amount of money that equals the net revenue deficit resulting from revenue neutral rate structure and rebalancing changes of the companies.[22]

The PUC has further noted:

> The small ILECs need rate reform to effectively transition to and compete in a competitive telecommunications market; their customers need such reform to enjoy advanced telecommunications services at reasonable rates. The Small Company Plan [proposing the creation of Pennsylvania's Intrastate Universal Service Fund] is intended to assure revenue neutral recovery of access and toll restructuring and reductions by the Small Companies, and relieves the pressure on the small companies' high local rates.[23]

The PUC in the Global Order noted that small incumbent carriers would be allowed to draw down from the fund on a temporary basis. The PUC indicated:

> The interim funding mechanism that we create through this order will function until December 31, 2003, or until the subsequent investigation [which the Commission ordered] develops a new process, whichever occurs first.[24]

To obtain revenues for the fund, the PUC required all telecommunications providers (i.e., interexchange carriers, incumbent local exchange carriers, and

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[21]Companies with a flat carrier charge below $7.00 per line were not permitted to increase their charge.
[22]Global Order p. 142.
[23]Global Order pp. 143-144.
[24]Global Order p. 153.

competitive local exchange carriers), except wireless carriers, to contribute on the pro rata basis of their intrastate end-user telecommunications revenues.

The PUC's Global Order called for regulations to implement the fund, and the PUC published such regulations.[25] The regulations provide for the required collections from companies. Consistent with the Global Order, they authorize all incumbent local exchange carriers, other than Bell and GTE, to receive fund subsidies. Competitive local exchange carriers (including competitive carriers that are subsidiaries of incumbents) are not eligible to draw down from the fund since their local rates were not established through residual pricing methods.

The regulations provide for certain fund activities to be carried out by an administrator chosen by the PUC.[26] The National Exchange Carrier Association (NECA) currently administers the fund on behalf of the PUC. (Appendix P provides findings from the PUC's audits of fund operations.) The fund administrator collects and accounts for revenue distributions from Pennsylvania's Intrastate Universal Service Fund/Carrier Charge Pool. It is not responsible for the development of the criteria for fund disbursements.

The PUC identified general disbursement criteria in the Global Order. The order permits small incumbent carriers to draw down from the fund[27] on a revenue neutral basis in order to offset revenue losses resulting from:

- Reducing their intraLATA toll charges to an average rate not lower than $0.09 per minute. The Global Order permitted (though it did not require) companies with local rates below $10.83 per month to increase residential one-party basic local exchange rates up to an average of at least $10.83 per month in order to offset reduced toll revenues. Any additional money a small company would need to recover to offset toll revenue loses could be obtained through a draw from the USF.

- Allowing companies to provide a credit to end-users whose residential one-party local exchange charge is more than $16.00 per month, i.e., the Global Order "affordability cap."[28]

- Restructuring their intrastate traffic sensitive access rates (including local transport) and converting them to their interstate rates and structure in effect on July 1, 1998.

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[25]Such regulations were published in the Pennsylvania Bulletin on June 29, 2001—31 Pa.B. 3402.
[26]52 Pa. Code §§63.163, 63.167.
[27]As a condition for drawing down money from the fund, companies must agree to pass through savings they realize as a result of reduced access charges to end users and not to impose an end-user subscriber line charge.
[28]Proportionate credits are also provided to small business end-users.

- Restructuring their carrier common line charge to a flat rate carrier charge and reducing the carrier charge to an intrastate rate of approximately $7.00 per line.

The PUC further permitted (though it did not require) companies that had increased their one-party residential local exchange rate to an average of $10.83 per month but still had not decreased their average intraLATA toll rate to $0.09 per minute, and/or had not recovered sufficient revenues from the establishment of a $7.00 carrier charge, to restructure their existing tariffed services on a revenue neutral basis up to the level of the affordability cap. Initially, the PUC indicated it would permit such restructuring to existing tariffed services ". . . on the condition that there will not be an increase in basic local exchange rates and other protected services. . . . "[29] Subsequently, the PUC clarified that it would permit tariff restructuring "on the condition that there will not be an increase in basic local exchange rates and other protected services beyond the $16.00 per month ceiling."[30]

Over the projected life of the fund (from April 2000 when the fund started operation through December 2003), its recipients will have received over $109.6 million in subsidies. On an annual basis,

- 76 percent of the fund's disbursements go to offset the reduced revenues resulting from companies restructuring and decreasing their carrier common line charge.

- 20 percent go to offset the reduced revenues resulting from the reductions in traffic sensitive access rates.

- 3 percent go to offset reduced revenues resulting from reduced toll rates.

- 1 percent go toward credits for residential and business customers whose rates are above affordability thresholds established by the PUC in its Global Order (i.e., $16 per line per month for residential customers).

Global Order Rate Restructuring and Rebalancing. To implement the required rate changes associated with the establishment of the fund, the PUC allowed such changes to be accomplished through compliance filings. Because company rate structures differed, all companies did not make the exact same tariff changes. In small company compliance filings that went into effective in April 2000:[31]

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[29]Global Order p. 152.

[30]Global Order Clarification Order; *Docket Nos. P-00991648 and P-00991649*; Order entered November 5, 1999, p. 9.

[31]This analysis excludes United/Sprint which has separate requirements discussed below.

- 26 companies reduced their toll rates, with nine of the companies drawing down from the USF to subsidize such reductions (ALLTEL; Frontier Breezewood, Canton, Lakewood, and Pennsylvania; Ironton; Palmerton; Pymatuning; and South Canaan.).

- 7 companies (ALLTEL, Frontier Breezewood, Canton, Lakewood, Oswayo, Lackawaxen, and Mahanoy & Mahantango) had to decrease their traffic sensitive access rates to 1998 interstate levels. The revenues recovered through the fund as a result of such reductions ranged from a low of $140 to over $5 million.

- 20 companies changed their carrier common line charge to a flat rate and/or reduced it to $7.00 per line. Ten companies (including Armstrong North, Denver & Ephrata, Frontier Breezewood, Canton, Lakewood, Oswayo, PA, Ironton, Pymatuning, and South Canaan) did not make such filings because their charges were already below $7.00. The range of revenues recovered through the fund as a result of such changes ranged from a low of approximately $9,000 to over $9 million for one small company.

- 15 companies (ALLTEL, Buffalo Valley, Commonwealth, Conestoga, Denver & Ephrata, Frontier Breezewood, Canton, Lakewood, and PA, Ironton, Lackawaxen, North Penn, Palmerton, Pennsylvania Telephone, and South Canaan) increased local rates to offset revenue loses from the ordered changes. Seven of the 15 companies that increased local rate had local rates below $10.83 (Buffalo Valley, Commonwealth, Conestoga, Denver & Ephrata, Frontier PA, Lackawaxen, and North Penn). Local monthly rate increases ranged from $0.04 to $ 0.64.

- 4 companies (Citizens Communication,[32] Mahanoy & Mahantango, Pymatuning, and Sugar Valley) provided credits to consumers whose rates are above the Global Order's affordability cap (i.e., $16 per month for residential customers). The credits range from $0.42 to $2.50 monthly.

As stated in the Global Order, the fund is intended to assist small incumbent local exchange carriers. Two relatively large companies (ALLTEL and United/ Sprint) account for almost two-thirds of fund disbursements. Four companies (ALLTEL, Conestoga, North Pittsburgh, and United/Sprint) account for almost 85 percent of the disbursements. One small company (Denver & Ephrata) has seen its disbursements from the fund decline such that in 2003 it will pay into the fund more than it will draw down.

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[32]The PUC waived Chapter 30 petition and plan submission for this company. Citizens Communications, moreover, has central offices located in New York and follows New York intrastate access tariff rules. It, therefore, is not eligible for draw down under all of the Pennsylvania USF disbursement criteria.

Wide differences exist across the companies in the amount of subsidy each receives on a monthly per line basis. ALLTEL and United/Sprint receive significantly greater monthly per line subsidies than other companies. Table 9 shows the monthly per line subsidies companies receive over the life of the fund.

The large differences in the subsidies are due to the design of the fund and the extent to which companies themselves had taken steps prior to the creation of the fund to restructure and rebalance their access, toll, and local rates. Commonwealth, Frontier, Ironton, Kecksburg and the TDS Telecom companies (Mahanoy & Mahantango and Sugar Valley) were among the early Chapter 30 petition and plan filers. In view of their relatively lower level of support from the Pennsylvania Intrastate Universal Service Fund/Carrier Charge Pool, Table 9 suggests that such companies were able to reduce their access and toll charges and bring local rates closer to costs through the rate restructuring and rebalancing provisions in their approved Chapter 30 petitions and plans without having to significantly rely on a USF to reduce their access and toll rates.

Table 9

Pennsylvania Intrastate Universal Service Fund/Carrier Charge Pool
Monthly Per Line Subsidy
(April 2000 Through December 2003)

PA Intrastate Service Fund/Carrier Charge Pool Recipient	Monthly Per Line USF Subsidy April 2000 Through December 2003
ALLTEL	$3.30
Commonwealth	0.15
Five Frontier Companies	0.06[a] (from $0.01 to $0.17)
Ironton	0.00
Kecksburg	0.01
Small Company Group—Plan A	0.58[a] (from $0.00 to $1.62)
Small Company Group—Plan B	0.06[a] (from $0.00 to $0.35)
TDS Telecom	0.05[a] (from $0.01 to $0.09)
United/Sprint	2.80

[a]Unweighted average.

Source: Developed by LB&FC staff from the PUC disbursement data and access line data.

The fund is intended to assist small rural companies, according to the Global Order. Three of the four companies that receive the greatest subsidy from the fund provide service in both urban and rural counties. One only operates in mostly urban counties, including Chester and Montgomery counties.

All companies whose rates were below $10.83 did not increase their local rates to offset revenue losses resulting from the required access and toll reductions.

North Pittsburgh, which receives the third largest amount of support from the fund, is among the companies with rates below $10.83 that elected not to increase its rates up to $10.83 in April 2000 to offset the revenue losses resulting from the establishment of the $7.00 carrier charge.

The four primary recipients of fund subsidy (ALLTEL, Conestoga, North Pittsburgh, and United/Sprint), however, have submitted rate rebalancing and restructuring proposals under their Chapter 30 alternative regulation petitions and plans. The language in the Global Order indicates that the fund subsidy is temporary to allow for transitioning to a competitive environment. None of the rate restructuring and rebalancing filings the four companies submitted, however, indicate how they plan to transition away from the fund's subsidy. Language in the tariff filing of at least one of the companies indicates that absent revenue from the fund its carrier common line charge will revert to its previous levels.[33]

ALLTEL's Global Order and Chapter 30 Rate Restructuring and Rebalancing. In the April 2000 Global Order compliance filing, ALLTEL reduced its intrastate traffic sensitive access rates and its carrier common line charge to $7.00. It also increased its local rates $0.51.

In June 2002, under the company's Chapter 30 petition and plan, the PUC approved an agreement between the company and the Office of Consumer Advocate (OCA). The agreement allowed the company to increase its basic local rates up to $2.50 per month to offset revenue loss resulting from the company reducing its common carrier line charge from $7.00 to $5.26 per month. (The June 2002 order also addresses the company's Chapter 30 PSM filing, which resulted in a modest increase in basic local rates and certain optional calling services. See Finding L for information on the PSM portion of the June 2002 order.) The June 2002 PUC order does not indicate how the company intends to offset the subsidy it receives from the fund when the fund is no longer available to subsidize the company's local rates.

Conestoga's Global Order and Chapter 30 Rate Restructuring and Rebalancing. In the April 2000 Global Order compliance filing, Conestoga reduced its carrier

[33]The PUC based the access and toll reforms it ordered and its proposed USF on several proposals from parties in the Global proceedings. It also ordered that the small rural companies modify the USF proposal they submitted to include United/Sprint and to conform to other changes reflected in the language in the Global Order. The companies revised their original proposal to include United/Sprint and updated their proposed disbursement figures. They submitted, but did not revise the original proposal narrative to reflect the language in the Global Order. The companies' original proposal included language indicating that the Commission would initiate a proceeding on or about January 2, 2003, to consider how the fund/pool will be reduced or modified, which differs from the language in the Global Order. The companies' original proposal also included language stating that access and toll rates will go back to the pre-fund levels if the PUC permits the USF to be dissolved. Such language is also in conflict with the Global order. To the extent the companies' submission is inconsistent with the language in the Global Order, the Global Order prevails, according to PUC staff with whom we spoke. Some companies, may be operating under the assumption that the language in their filing with the PUC is the operative language.

common line charge. It also increased its local rates approximately $0.34 per line per month.[34]

In June 2001, under the company's Chapter 30 petition and plan, the PUC approved a $2.50 per month increase in local rates and unspecified reductions[35] in the company's access rates. Initially, the company had proposed a $3.50 per month increase for residential customers. Based on an agreement with the OCA, the company agreed to reduce its monthly increase for residential basic local service in return for the OCA agreeing to drop its complaint against a pending request for a directory assistance rate increase.

In June 2002, the PUC approved further unspecified local rate increases and additional access rate reductions. None of the company's approved rate rebalancing and restructuring filings explain how the subsidy the company now receives from the fund will be offset when the fund is no longer available to subsize the company's local rates.

North Pittsburgh's Chapter 30 Rate Restructuring and Rebalancing. In the April 2000 Global Order compliance filing, the North Pittsburgh Telephone Company reduced its carrier common line charge to $7.00. The company had its Chapter 30 petition and plan approved in July 2001. Shortly after, it notified consumers of its plans to increase monthly residential rates and business rates by $3.50 and $1.40 respectively as allowed in its approved Chapter 30 petition.

Prior to submitting the rate rebalancing tariff filings in September 2001, the company entered into discussions and an agreement with the OCA. In the September filings, the company's rate rebalancing plan provided for a $2.50 per line per month increase for its residential customers for 2001. As part of a joint agreement among the parties, the OCA agreed not to oppose a revenue neutral rebalancing filing to be submitted in 2002 if the proposed monthly residential increase is $1.50 or less per line. The OCA also agreed to withdraw a pending complaint against the company's proposed increase in its directory assistance rates.

In November 2001, the PUC approved North Pittsburgh's September 2001 rate rebalancing tariff filings with the above noted local rate increases. The filing also included a further reduction in the company's intrastate carrier common line charges from $7.00 to $4.98, and the company reduced its intrastate special access rates to mirror its current interstate rates and structure. The PUC's order does not explain how the company's reliance on the subsidy it receives from the fund to

[34]The company's customers also experienced an average increase of $0.96 per month as a result of exchange reclassification. Such changes, however, are not considered rate restructuring and rebalancing changes under the Global Order or Chapter 30.

[35]Specific information on the change are not detailed in the documentation provided by the PUC.

reduce its carrier common line charge to $7.00 will be offset when the fund is no longer available to subsidize the company's local rates.[36]

United/Sprint's Global Order and Chapter 30 Rate Restructuring and Rebalancing. The small rural company proposal for the Pennsylvania Intrastate Universal Service/Carrier Charge Pool initially did not include United/Sprint, which does not qualify as a recipient of federal funds available to companies that serve low density areas and have above average costs. (See Exhibit 1 for a list of participating companies.)

In the Global Order, the PUC concluded that United/Sprint should be included as a fund recipient and receive $ 9 million from the fund. Subsequently, in the Global Clarification Order, the PUC modified its original discussion concerning the criteria for United/Sprint's draw down from the fund. The PUC clarified that the company could use its fund draw down in ways that were consistent with its approved Chapter 30 petition and plan, [37] rather than the specific criteria set forth in the Global Order. One result of this clarification is that United/Sprint was not required to reduce its carrier common line charge to $7.00 per month by April 2000 in order to qualify for subsidy from the fund. The PUC's Global Clarification order also specified that the Global Order directs:

> Sprint/United's traffic sensitive access rates to be reduced from $0.038 per minute of use to $0.02 per minute of use on each end. This reduction will occur as a direct result of rate restructuring. Sprint/United will participate in the Small Telephone Company USF and withdraw approximately $9 million from that fund to be used to reduce its carrier charge after the small telephone company fund has been resized to reflect Sprint/United's participation. Sprint/United's access revenues will be reduced to a minute of use rate of $0.12 over a three year period as part of its Chapter 30 case. . . . The $9 million draw from the Small Telephone Company USF will be used to further reduce its access charge to approximately $0.10 at the end of the Chapter 30 phase in.[38]

In the company's April 2000 Global Order compliance filing, the company removed non-traffic sensitive costs from local switching and local transport rate elements and lowered the traffic sensitive access rates to $0.020520. To offset the revenue lost as a result of reducing its traffic sensitive access rates, the company increased its carrier charge.[39] In the April 2000 compliance filing, the company then reduced its carrier charge by $9 million (i.e., the subsidy provided by the

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[36]*PA. PUC v. North Pittsburgh Telephone Company, Docket No. R-00016681;* Order entered November 30, 2001.
[37]Global Order Clarification Order p. 12.
[38]Global Order Clarification Order p. 12.
[39]The Global Order does not specify if the "restructuring" to lower the traffic sensitive access rate would rebalance access or local rates.

fund.)[40] The tariff filing reducing the carrier charge also indicated that if the company is excluded from the fund the carrier charge may be recalculated to ensure proper recovery of revenues—in other words, the carrier charge would increase.

United/Sprint's approved Chapter 30 petition and plan authorizes rate restructuring and rebalancing. Specifically, the petition and plan indicates that increases in local rates and other non-competitive services will provide for an effective switched access rate of $0.119965 within three years. (See Exhibit 17 for the Chapter 30 rate rebalancing provisions.)

In October 2002, the PUC approved the company's third revenue neutral rate rebalancing filing. In the filing, the company further reduced its traffic sensitive access rates from $0.020520 to $0.006175. To offset the revenue loss resulting from reducing its traffic sensitive access rates, the company increased its carrier charge from $7.73 per line to $9.24 per line. To reduce the $9.23 per line per month carrier charge to $7.78, the company increased its monthly weighted average residential rates from $14.31 per month to $15.88. It also increased rates for other services including foreign exchange, directory listings, calling features, ISDN, ATM, frame relay, and special access.

Such rate rebalancing changes, however, did not provide for a $0.10 per minute effective switched access rate as required by the PUC in the Global Clarification Order. According to the PUC October 2002 order:

> Sprint . . . states that the application of its $9 million USF net draw to its access charges reduced its combined weighted average access charge to approximately $0.1182 per minute of use, not the rate of approximately $0.10 per minute of use that was anticipated in the *Global Clarification Order*. Therefore, in addition to the instant revenue neutral rate rebalancing filing, Sprint also proposes that the revenue reduction required by the 2002 [Price Stability Mechanism filing] . . . be applied to further reduce the Carrier Charge in order to meet the $0.10 per minute of use rate by the end of its Chapter 30 phase-in, as required by the *Global Clarification Order*.[41]

The PUC, therefore, approved the company's 2002 Price Stability Mechanism filing decreasing the carrier charge from $7.78 to $7.59 per access line per month, and noted:

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[40] *PUC v. The United Telephone Company of Pennsylvania, d/b/a Sprint, Docket No. P-00981410*; Order entered October 24, 2002, p.3.

[41] *PUC v. The United Telephone Company of Pennsylvania, d/b/a Sprint, Docket No. P-00981410;* Order entered October 24, 2002, p.4.

When converted to a per minute rate and combined with the traffic sensitive access rate of $0.01235 per minute ($0.006175 per originating and terminating minute), the $7.59 Carrier Charge yield a derived per minute access charge of $0.10.[42]

The Global Order and Bell Atlantic-Pennsylvania's Price Cap Formula. In its Global Order, the PUC utilized Chapter 30 rate restructuring and rebalancing provisions to reform access (and toll) rates for the smaller and mid-size companies. The PUC had not specifically authorized Bell to restructure and rebalance its rates when it approved the company's Chapter 30 alternative regulation petition and plan. However, consistent with its 1996 order rejecting Bell's request to restructure and rebalance its rates, the PUC relied on the company's Chapter 30 price cap formula to further reduce Bell's access charges without having to authorize the company to rebalance and restructure its local rates.

The PUC's Global Order directed Bell to finance the access charge reductions it ordered from revenues available through the application of the company's Chapter 30 price cap or Price Change Opportunity (PCO) formula. The PUC further ordered that available PCO revenues be used to partially support the interim state universal service fund created by the Global Order.

The PUC's Global Order indicated that if the access charge reductions the PUC ordered could not be funded by available PCO revenues, the company was authorized to submit a revenue neutral rate increase as provided for under its Chapter 30 petition and plan. This provision in the Global Order resulted in the May 2002, rate increase under the company's 2000 price cap formula filing discussed in Finding L.[43]

As a result of the PUC's Global Order, almost 90 percent of the total revenues available to Bell from 1995 through 2002 under its Chapter 30 Price Change Opportunity formula to reduce rates for noncompetitive services have been directed to reducing access charges for access services, which are both noncompetitive services and protected services under Chapter 30. When the PUC issued its Global Order, it recognized that customers other than Bell's customers would benefit from the company's required access charge reductions and requirements related to the Order's state universal service fund. The PUC reasoned that the use of Bell's Chapter 30 PCO revenues from 1997 through 2002 as required by the Global Order helped to encourage local and intraLATA toll competition and promoted the FCC and the state's policy of universal service. The PUC further indicated that Bell's customers would ultimately benefit since certain of the ordered reductions:

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[42]*PUC v. The United Telephone Company of Pennsylvania, d/b/a Sprint, Docket No. P-00981410*; p. p.5.
[43]See *Pennsylvania Public Utility Commission v. Verizon Pennsylvania, Inc., Docket No. R-00027152*; Order entered April 24, 2002.

> . . . will have the immediate effect of reducing the fees that long distance carriers pay to BA-PA, and will yield toll rate reductions for toll end-users because the IXCs indicated that they would pass access charge reductions through to customers via direct reductions in standard measured toll service rates for residential and business customers.[44]

Chapter 30 does not require that increased revenues IXCs receive as a result of access charge reductions be passed through to residential and business customers, and Chapter 30 limits the PUC authority to regulate IXCs. As formal participants in the Global Order proceedings, however, the PUC expected them to pass through to end-users their savings resulting from the access charge reductions required by the Global Order. The PUC, therefore, required IXCs to file an annual report with the PUC demonstrating how the access charge reductions were passed through to residential and business customers.

LB&FC staff reviewed reports from IXCs provided to the PUC in response to its order. Companies appear to have responded to the PUC's order in different ways. We were, therefore, unable to confirm that Commission expectations have been met and that residential customers have directly benefited from the access rate reductions.

Requirement for Further Access and Toll Reforms

As a result of Chapter 30 and the Global Order provisions, all of the incumbent local exchange companies now have intrastate-switched access rates at or below the rates identified in Chapter 30. In the Global Order, however, the PUC recognized that the reductions it provided for in the Global Order were not sufficient to remove all of the subsidy access (and message toll) services provide to local rates. The PUC, therefore, directed that the Commission initiate an intrastate access charge reform investigation to develop long-term solutions no later than December 31, 2001. The PUC delayed the investigation hoping that it would have the benefit of further interstate reforms that were anticipated from the FCC.

In December 2002, all of the incumbent carriers, other than Bell and GTE, entered into a proposed settlement agreement with the Office of Consumer Advocate and the PUC Office of Trial Staff proposing to increase the affordability cap on local rates from the Global Order's $16 to $18, with the companies further removing the access and toll subsidies from local rates through continued subsidies from the Intrastate Universal Service Fund/Carrier Charge Pool. The interim state fund would continue to operate with the major portion of its operations funded by Bell's Chapter 30 Price Change Opportunity revenues and support from other large interexchange carriers such as AT&T and competitive local exchange carriers.

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[44]Global Order p. 28.

The PUC had also directed Bell and GTE, to develop a plan to bring GTE access rates into parity with Bell's much lower rates. GTE's access rates are similar to those of other companies. In response, Bell developed a proposal that provides for increasing local rates for Bell and GTE customers to the level in the proposed settlement agreement with the OCA, Trial Staff and the other companies in order to bring GTE access rates into parity with Bell's rates. If the proposal is adopted by the PUC, Bell agreed that it would not object to the use of its PCO revenues for three subsequent years to help fund access charge reductions for the other companies as they were restructuring and rebalancing their rates.

As of June 2003, the issues associated with access and toll rates subsidizing local rates and the competitive barriers such subsidies create have not been resolved. Major IXCs continue to pay access charges above costs, and as a result, some have started to assess in-state connections fees directly on customers. One major IXC (AT&T) in March 2003 introduced a $1.95 month In-State Connection Fee on certain of its Pennsylvania customers to help recover the cost the company pays to local telephone companies to carry customers' instate long distance and toll calls over local phone lines.

Various parties have objected to the two proposals that have been offered by the companies and the Office of Consumer Advocate to provide further access and message toll service reforms and eliminate the effect of the PUC's residual pricing of local telephone service. AT&T, for example, objects to the continuing need for reliance on the Pennsylvania Intrastate Universal Service Fund for access charge reductions and Bell's use of any revenue available under its price cap formula to pay part of its contribution to the fund. AT&T, MCI, WorldCom, and the OCA, moreover, oppose revenue-neutral access and toll reductions. For these and other reasons on May 1, 2003, the PUC referred the separate petitions and other related matters to Administrative Law Judges for evidentiary hearings and recommended decisions. The order calls for recommended decisions within six months.

On June 4, 2003, the parties at M-00021596, Access Charge Investigation Per Global Order of September 30, 1999, filed a Joint Procedural Stipulation which states that implementation of the RTCC/Sprint Joint Access proposal is no longer opposed. The PUC is expected to rule on this petition at an upcoming public meeting.

Reform of local rate structures to eliminate the effect of residual pricing methods and to provide for access and toll reforms is the telecommunications issue that is most likely to directly affect most Pennsylvania consumers. It is also a telecommunications issue where the PUC continues to have jurisdiction.

O. The PUC Is Establishing Additional Consumer Protections to Respond to Problems Associated With Open Competitive Telecommunication Markets

Chapter 30 did not modify the authority of the PUC to protect consumers. With the opening of telecommunications markets, however, the PUC's Bureau of Consumer Services has received an increasing number of consumer complaints about competitive service quality issues. Although TA-96 prohibits states from establishing barriers to entry into interstate or intrastate telecommunications service, the act specifically reserves the ability of a state to impose on a competitively neutral basis requirements to "protect the public safety and welfare, ensure the continued quality of telecommunications services, and safeguard the rights of consumers."[1] Therefore, in 2002, the PUC issued interim guidelines for quality of service procedures, customer information, procedures for changing local service providers and a local service provider abandonment process.

PUC Existing Regulations

The PUC promulgated regulations to provide consumer protections related to telephone service as far back as 1946. These regulations, 52 Pa.Code Chapter 63, address such issues as complaint procedures, installation of service standards, and requirements for metering inspections and tests. Regulations also provided for billing and payment standards, procedures for suspension of service, dispute resolution processes, and requirements for restoration of service.[2] These regulations were promulgated under the Commission's general authority to "[p]rescribe adequate and reasonable standards for the measurement of quantity, quality . . . or other condition pertaining to the supply of the service of any and all public utilities."[3] The Public Utility Code also requires every public utility to

> . . . furnish and maintain adequate, efficient, safe, and reasonable service . . . such service also shall be reasonably continuous and without unreasonable interruptions or delay. Such service and facilities shall be in conformity with the regulation and orders of the commission.[4]

Recent Consumer Protection Guidelines

On April 23, 2002, the Commission issued Final Orders adopting interim guidelines for:

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[1] 47 U.S.C. §253(b).
[2] 52 Pa.Code Chapter 64.
[3] 66 Pa.C.S.A. §1504(2).
[4] 66 Pa.C.S.A. §1501.

- Quality of telecommunications service,
- Customer information,
- Procedures for changing local service providers, and
- Local service provider (LSP) abandonment.

The Commission also convened rulemaking collaboratives in June to August 2002, to address the promulgation of regulations relative to these areas. A collaborative is an ad hoc working group convened by the PUC to address primarily technical issues and to seek consensus resolutions. Participants include representatives of the service providers, the OCA, the OSBA and the PUC. Based upon the collaboratives, the PUC staff are preparing recommendations to submit to the Commission in summer 2003.

Commentors on all four guidelines expressed their concern that the interim guidelines are unenforceable since binding requirements can only be established pursuant to the Commonwealth Documents Law[5] and the Regulatory Review Act[6] as regulations in a rulemaking proceeding. The Commission responded that it views the Interim Guidelines as guidance to LSPs, noting that LSPs following the guidelines "will be acting in a reasonable manner and that adherence to these guidelines will result in reasonable and adequate service as required by Section 1501 of the Public Utility Code, 66 Pa.C.S.A. §1501 (relating to character of service and facilities.)"[7] The Commissioners also noted that it was common for the Commission to adopt interim guidelines until final regulations are published, citing to the implementation of other legislation.

Quality of Service Guidelines. In response to its initially proposed tentative guidelines, written comments were received from telecommunications companies, the Association of Communications Enterprises, the Pennsylvania Cable and Telecommunications Association, the Pennsylvania Telephone Association, the Office of Consumer Advocate, the Office of Small Business Advocate, and the Communications Workers of America.

The Commission responded to commentors' concerns about the need for such guidelines by citing the increase in the number of competitors in the Pennsylvania telecommunications market since 1984. Due to the number of local and toll service carriers to choose from, the Commissioners noted that customers have encountered confusion, delay, and/or interruption of local service in dealing with multiple LSPs. The Commissioners also cited Bell's entrance into in-region long distance service as

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[5] 45 P.S. §§1201 et seq.
[6] 71 P.S. §§745.15 et seq.
[7] *Interim Guidelines Establishing Customer Information for Jurisdictional Telecommunications Companies, Docket No. M-00011582 F0002*; Order entered April 23, 2002, p.26.

resulting in more interactions between an end-user and multiple LSPs. Finally, the Commissioners referenced the increasing number of consumer complaints about competitive service quality issues received by the Bureau of Consumer Services.

Although challenged by commentors and a Commissioner over the authority to enforce interim guidelines prior to their promulgation as regulations, the Commission responded that:

> The Commission agrees that the Interim Guidelines are not regulations. They are not "the law," but they represent the Commission's current policy on these issues, providing both customers and the LSPs with guidance as to this agency's expectations in the areas covered by the Interim Guidelines. As such, the Interim guidelines will be the policy that the Commission will follow should an informal or formal complaint about these issues come before it.[8]

The purpose of the Interim Guidelines for Quality of Service is to:

1. Establish uniform procedures for all LSPs to use when handling interfering station conditions.
2. Establish uniform procedures for all LSPs that will allow residential and business customers to retain their telephone lines and numbers when they change LSPs.
3. Address coordination of repair problems when there is an underlying carrier.

The interim guidelines the PUC issued establish time-frames and notice requirements for the new LSP and the previous LSP for interfering station termination[9] as well as requirements for number porting[10] and involuntary migration.[11] These guidelines apply to all LSPs and are intended to be consistent with and augment PUC regulations at 52 Pa.Code Chapters 55, 63 and 64, Non-Carrier Rates and Practices, Telephone Service, and Standards and Billing Practices for Residential Telephone Service.

The interim guidelines the PUC adopted did not address all outstanding quality of service procedural issues. The Commission deferred to the rulemaking

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[8]*Interim Guidelines Establishing Quality of Service Procedures for Jurisdictional Telecommunications Companies, p. 5, Docket No. M-00011582, F003;* Order entered April 23, 2002.

[9]The guideline defines interfering station as a "Pre-existing service that prevents the reuse of the existing telephone facilities by a new [LSP] to serve a new customer at a location where the prior user abandoned the premises without notifying the previous [LSP] to disconnect the telephone service. The previous [LSP] and the new [LSP] may be the same company."

[10]The process that allows customers in certain circumstances to keep their telephone numbers when changing LSPs.

[11]The movement of an end-user customer from one LSP to another LSP at the same customer location.

collaborative it convened the issue of whether to disclose to an end-user customer the line or circuit identification information that applies to that customer's account[12] whenever an involuntary migration is to take place.

Customer Information. In response to the initially proposed tentative guidelines, written comments were received from telecommunications providers, the Association of Communications Enterprises, the Pennsylvania Cable and Telecommunications Association, the Pennsylvania Telephone Association, the Office of Consumer Advocate, and the Office of Small Business Advocate. Initially, this interim guideline is applicable solely to residential customers.

The purpose of the Interim Guidelines Establishing Customer Information is to:

1. Provide residential customers with information in disclosure statements, bills, notices and marketing materials in order to assist customers in making educated choices about local telecommunications service.
2. Provide customers with disclosure statements that convey in clear and concise plain language, the terms and conditions of their local telecommunications services.
3. Provide customers with bills for local telecommunications services in a clear, concise and understandable format.
4. Reduce slamming and other telecommunications fraud by setting standards for customer information materials.

The PUC intends the guidelines to be consistent with and to augment the Truth-in-Billing Requirements adopted by the FCC in 47 C.F.R. §§64.2400-64.2401 and 52 Pa.Code §64.191 (relating to public information).

Several of the issues raised by commentors, including the applicability of the guidelines to residential customers only, need for definitions of regulatory charges to appear on monthly bills, revisions through Secretarial letter as recommended by the OCA, how to identify those charges that must be paid to avoid suspension of basic service, and the extent to which the new disclosure statement can replace current regulatory requirements were not addressed in the interim guidelines the PUC adopted and were deferred for discussion by the collaboratives.

Procedures for Changing Local Service Providers. In response to the initially proposed tentative guidelines, written comments were received from telecommunications companies, the Pennsylvania Telephone Association, the

[12]Such information is required for a customer to change from one local service provider (LSP) to another. If the information is provided to a customer and incorrect information is passed on by the customer to the LSP, other customers may experience problems with their service.

Pennsylvania Cable and Telecommunications Association, the Office of Consumer Advocate, and the Office of Small Business Advocate.

The purpose of the interim guidelines for changing local service providers is to:

1. Ensure that customers can change their local service provider (LSP) without unnecessary confusion, delay, or interruption to their basic service.
2. Ensure that the migration from one LSP to another LSP should be seamless to the customer.
3. Ensure that the migration from one LSP to another LSP allows the customer the option of retaining the existing telephone numbers, as applicable and when desired by the customer.
4. Minimize overlap in billing during the transition from one LSP to another LSP.

The interim guidelines adopted apply to all LSPs that serve residential customers with the exception of E911 and Directory Listings/White Pages, which relate to all customers. The PUC intends the guidelines to be consistent with the FCC's regulations at 47 C.F.R. Subpart K, Changing Long Distance Service, which is also applicable to local service, and with 52 Pa. Code §64.2, Definitions, and 52 Pa. Code §64.191, Public Information.

The Commission deferred to a separate collaborative the need to revise the definitions of "freeze"[13] and "LSP freeze," and at the direction of the Chairman, whether the final regulations should apply to business, the appropriate criteria to determine whether a business should be covered and the appropriate definition of small business.

One of the Commissioners expressed his concern about applying the guidelines differently to residential and business customers citing a case that was before the PUC in which an LSP proposed to abandon service to 377 of its business customers. The LSP only planned to transition 177 of the customers leaving 200 to provide "customer instructions" to the old service provider. In another case, a company with two facilities, 82 direct dial lines, 23 channels, and 150 employees contacted the PUC because its LSP was abandoning service is a shortened period of time (30 days as opposed to 60 days) and the business will lose local service and be unable to operate unless the PUC can find a solution. The commissioner reluctantly favored the issue being addressed by the collaborative.

[13]This term refers to the designation elected by a customer that requires the customer with the freeze, including an LSP freeze, to advise his/her previous preferred carrier of his/her intention to change preferred carriers. For customers without freezes, the new preferred carrier may relay the information to the previous preferred carrier that the customer has made a verified decision to change preferred carriers.

Local Service Provider Abandonment Process. In response to the initial tentative guidelines proposed by the PUC, written comments were received from telecommunications companies, the Pennsylvania Cable and Telecommunications Association, the Pennsylvania Telephone Association, the Office of Consumer Advocate and the Office of Small Business Advocate. Prior to it issuing tentative guidelines on the local service provider abandonment process, the Commission had been handling abandonment on a case-by-case basis with the Commission providing customer notification and call center support when several abandoning LSPs failed to do so. The tentative guidelines issued by the PUC apply to LSPs who are resellers and LSPs providing services through unbundled network elements and serving residential and business customers.

The purpose of the guidelines for LSP abandonment is to:

1. Provide customer notification and call center support when an LSP of local service abandons service to residential and business customers under the following circumstances:
   a. The underlying carrier that provides part or all of the services necessary to provide local exchange carrier service is terminating the LSP's service agreement;
   b. The PUC issues an order to revoke the LSP's certificate of public convenience; or
   c. The LSP seeks a certificate of public convenience to voluntarily abandon the provision of local exchange carrier service.

2. Ensure LSPs give adequate notice of the impending termination of local exchange carrier service to enable their customers to obtain service from another provider before the existing LSP abandons service.
3. Provide for minimal notification deposit requirement to be paid by LSPs prior to the initiation of services to customers to ensure that there is sufficient incentives for the LSPs to provide adequate customer notification and call center access when abandoning service to customers. If the LSP fails to provide proper notice and customer support, the deposit will be used to pay the cost of customer notices about the abandonment of services and to maintain call center access for customers with questions.
4. Provide for an embargo process[14] that precedes the termination of a LSP's service agreement with an underlying carrier.

The tentative guidelines adopted by the PUC deferred to the collaboratives issues concerning whether these guidelines apply to LSPs providing data services,

[14]An embargo is the refusal by an underlying carrier to process local service change requests or to initiate new local service requests because the LSP that is reselling its services or buying its UNEs facilities is delinquent in paying for those services or facilities.

whether good, advance triggers exist that could be relied upon for early signs of impending abandonment, who provides notice if the abandoning LSP fails to (possibilities include the PUC, OCA, underlying carrier or other entities), amount of security deposits and to whom they apply, default carrier provisions, how to provide greater access to line and circuit identification information to facilitate customer switching without interruption in service, notice and filing requirements for partial abandonment and need to have preferred carrier freezes routinely removed once abandonment notices to customers are sent so customers can quickly migrate to a new carrier.

OCA Petition for Rulemaking

The Office of Consumer Advocate (OCA) has petitioned the PUC to amend its telephone service regulations, 52 Pa. Code §§63.1 et seq., to respond to technological changes in telecommunications. The OCA attempted to address these issues within the Quality of Service collaborative, but the participants and the facilitator determined that the collaborative was not the proper forum because the parties were unlikely to reach a consensus on these issues.

The OCA recommended the following amendments:

1. Requiring dial-up internet access at a minimum speed of 28.8 Kbps as a necessary element of providing adequate, efficient, safe and reasonable service.
2. Requiring a comprehensive Network Interface Device (NID) program. The NID allows a customer to determine the location of a service problem.
3. Requiring quality of service review on an exchange-by-exchange rather than statewide basis.
4. Requiring customer credit for missed service and installation appointments.
5. Requiring service providers to respond to out-of-service trouble reports within 24 hours, eliminating the current exception for outages that occur on weekends and involve fewer than fifteen people.
6. Requiring compliance with most recent National Electrical Safety Code.
7. Eliminating multi-party service requirements.

According to the OCA's, several of these proposals reflect quality of service standards used in other states. For example, Illinois has a NID replacement requirement.

Consumer Protections in Other States

The California Public Utilities Commission published a draft telecommunications bill of rights (see Exhibit 19) in June 2002. The consumer protection rules are applicable to all telecommunications carriers including wireless carriers,[15] when dealing with the public and with any subscriber having, or applicant seeking, that carrier's service on twenty or fewer access lines. The rules include safeguards against unfair marketing practices, service termination, backbilling, tariff and contract changes, and billing disputes. One of the goals in developing the rules was to standardize the requirements for all carriers and lessen consumer confusion. Prior to this, requirements may have differed as rules and regulations governing carriers evolved differently for wireless, long-distance, and local services due to the pace of technological change, the emergence of competition, and the processes by which issues are raised before the commission.

The Connecticut Department of Public Utility Control (DPUC) published draft mass migration guidelines in January 2002 (finalized February 2003) to ensure uninterrupted service to end users customers whose service providers leave the Connecticut marketplace. The Department was responding to situations in which service providers notified the DPUC of their plans to terminate service to end user customers and other service providers notified the DPUC of bankruptcy court proceedings and their subsequent cessation of service. Despite notification from the service providers, some end users did not subscribe to service from alternative providers in a timely fashion requiring the provider or a default provider to step in to ensure continued service to the end user. The guidelines outline the processes and procedures that local service providers shall follow as they exit the Connecticut marketplace. The Department also required a $50,000 surety bond be posted by all existing local exchange carriers and future applicants.

[15]Unlike the Pennsylvania PUC, the California Commission retained authority over wireless providers.

Exhibit 19

California's Consumer Bill of Rights

THE TELECOMMUNICATIONS BILL OF RIGHTS

- **Disclosure**: Consumers have a right to receive clear and complete information about rates, terms and conditions for available products and services, and to be charged only according to the rates, terms and conditions they have agreed to.

- **Choice**: Consumers have a right to select their services and vendors, and to have those choices respected by industry.

- **Privacy**: Consumers have a right to personal privacy, to have protection from unauthorized use of their records and personal information, and to reject intrusive communications and technology.

- **Public Participation and Enforcement**: Consumers have a right to participate in public policy proceedings, to be informed of their rights and what agencies enforce those rights, and to have effective recourse if their rights are violated.

- **Accurate Bills and Redress**: Consumers have a right to accurate and understandable bills for products and services they authorize, and to fair, prompt and courteous redress for problems they encounter.

- **Non-Discrimination**: Every consumer has the right to be treated equally to all other similarly situated consumers, free of prejudice or disadvantage.

- **Safety**: Consumers have a right to safety and security of their persons and property.

California Public Utilities Commission, 505 Van Ness Avenue, San Francisco, 94102

Source: California Public Utilities Commission.

P. Telecommunications Act of 1996 Has Significantly Pre-empted State Regulation of Telecommunications

Prior to the Telecommunications Act of 1996 (TA-96), Congress generally maintained the right of the states to regulate intrastate telephone service and the rates for basic cable service, while the Federal Communications Commission (FCC) had jurisdiction over interstate telephone service and cable programming service rates. Certain FCC orders, however, began to blur this line. TA-96 has clearly altered the traditional distinction between state and federal jurisdiction over telecommunications service.[1]

Communications Act of 1934

The Communications Act of 1934, 47 U.S.C. §§151 – 613, created a system of dual federal and state regulation of telephone service. The act created the FCC and gave it jurisdiction over "interstate and foreign commerce in communication by wire and radio . . . . " Intrastate telecommunications services were expressly excluded from the FCC's jurisdiction. States retained jurisdiction to regulate the rates and entry of intrastate telephone service providers.

Telecommunications Act of 1996

The TA-96 is the first major overhaul of federal telecommunications law since 1934. In broad terms,[2] the act is intended to promote competition, lower entry barriers, and reduce consumer costs. The act also seeks to encourage the deployment of advanced telecommunications capability.[3] Although TA-96 encourages the deployment of advanced telecommunications capability, it does not authorize their regulation. The Act specifically establishes policy "to preserve the vibrant and competitive free market that presently exists for the Internet and other interactive computer services, unfettered by Federal or State regulation."[4] TA-96 also generally deregulated cable rate regulation.

In general, the act provides for three methods of competition: facility-based competition; through leasing elements of incumbents' networks; and resale of incumbents' services by competitors. The act alters the traditional interstate-intrastate regulatory jurisdiction by pre-empting the states, to varying degrees, in

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[1]The Omnibus Budget Reconciliation Act of 1993, Pub.L. 103–66, preempted state regulation of the entry and rates of commercial mobile radio service providers, which includes cellular and other wireless services.
[2]This discussion is intended to provide an overview of the statute's key provisions. The specific meaning of the statute is continually being interpreted by the FCC and the federal courts.
[3]"Advanced telecommunications capability" is defined by the act as "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 telecommunications using any technology." Section §706(c)(1), Pub.L. 104-104, Title VII, February 8, 1996, 110 Stat. 153, reproduced in the notes under 47 U.S.C. §157.
[4]47 U.S.C. §230(b)(2).

three areas of particular note: entry regulation, interconnection agreements, and universal service provisions. Preemption is a doctrine that allows a federal law to take precedence over or displace a state law in certain matters of national importance.

Pre-emption of Entrance Regulations. Under TA-96, no state or local law or regulation "may prohibit or have the effect of prohibiting the ability of any entity to provide any interstate or intrastate telecommunications service."[5] The act, however, expressly states that this section does not affect the ability of a state to impose, on a competitively neutral basis and consistent with the act's universal service requirements, requirements to preserve and advance universal service, protect the public safety and welfare, ensure the continued quality of telecommunications services, and safeguard the rights of consumers.[6]

Interconnection Arrangements. The act imposes upon all telecommunications carriers a duty to allow interconnection with other carriers' facilities and equipment along with other duties intended to facilitate competition.[7] In general, incumbent local exchange carriers have additional duties including, among others: to negotiate interconnection agreements; to provide interconnection to their networks at any technically feasible point at just and reasonable rates, terms and conditions; nondiscriminatory unbundled access to network elements; nondiscriminatory resale of their services; and physical or virtual collocation of equipment. Rural telephone companies may petition the state commission for a suspension or modification of the interconnection requirements. The act, however, precludes the use of rate of return methods to establish interconnection rates.

The act authorizes state commissions to mediate or arbitrate interconnection agreements. Any interconnection agreement, whether reached through negotiation or arbitration, must be submitted to the state utility commission for approval or rejection. The criteria for review of the agreements, however, is different. A voluntarily negotiated agreement is not required to meet the requirements of TA-96, but may be rejected if it discriminates against other carriers not parties to the agreement or is otherwise contrary to the public interest. An arbitrated agreement is required to meet the interconnection requirements of §251[8] and the pricing standards of §252(d)[9] of the act and may be modified for consistency with the statutory provisions or rejected by the state commission if it does not meet those requirements. The state commission, however, may not modify a negotiated agreement but may impose additional state requirements, such as compliance with state quality of

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[5]47 U.S.C. §253(a).

[6]47 U.S.C. §253(b).

[7]Others include number portability, dialing party, access to rights of way and reciprocal compensation arrangements. 47 U.S.C. § 251(b), (c).

[8]These include, for example, the incumbent providing to any requesting telecommunications carrier nondiscriminatory access to network elements on an unbundled basis at any technically feasible point when various criteria referenced in the federal statute are met.

[9]Pricing standards include those for interconnection and network element charges for which the FCC adopted the pricing methodology based on the Total Element Long-Run Incremental Cost (TELRIC) of a local network.

service requirements, on both types of agreements, as long the requirements do not create barriers to entry to entities seeking to provide intrastate or interstate telecommunications service.

State commission decisions regarding interconnection agreements are appealable to federal district court. Federal courts have the sole authority to determine whether the state utility commissions are adhering to FCC policies and regulations and whether the FCC is correctly interpreting the federal act in its policies and regulations. No state court has jurisdiction to review the actions of a state commission in approving or rejecting a negotiated or arbitrated interconnection agreement.[10]

If the state commission fails to act regarding interconnection agreements or the establishment of wholesale prices for telecommunications services, the FCC is to assume responsibility and act in place of the state commission. Once a state commission acts, however, the action is subject to federal court jurisdiction. In MCI v. Bell Atlantic-PA, et al, the telecommunications provider brought suit in federal district court naming as defendants the incumbent provider, the PUC and individual PUC commissioners challenging several terms of the approved agreement.[11] The PUC and PUC commissioners sought dismissal on grounds of 11th Amendment Immunity.[12] The court rejected the immunity claim finding that under the TA-96 the authority for the state to regulate local telecommunications is a gratuity to which Congress may attach conditions including waiver of immunity.[13] Similarly, the court rejected immunity for the individual commissioners as the plaintiff was seeking prospective relief from an ongoing violation of federal law. The United States Supreme Court denied certiorari of this case on October 7, 2002. For the same reasons enunciated in the prior case, the court rejected the immunity claims of the PUC, its commissioners and several Pennsylvania state senators who intervened in a case that involved Bell challenging the terms, including the UNE rates and unbundled access to digital subscriber line access multiplexers (DSLAMs), of the Global Order as being inconsistent with TA-96.[14] (See Finding J for information on this broadband technology.)

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[10]TA-96 states that, "No State court shall have jurisdiction to review the action of a State commission in approving or rejecting an agreement under this section." 47 U.S.C. §252(e)(4). The PUC continues to challenge this prohibition of state court review of PUC decisions in these matters. This is an issue on appeal in both the Pennsylvania Supreme Court (1 EAP 2002) and the U.S. District court for the Eastern District of Pennsylvania (Civil Actions 99-5391 and 03-685).

[11]MCI v. Bell Atlantic – PA et al., 271 F.3d 491 (3rd Cir. 2001), *cert. denied*, 123 S.Ct. 340 (2002).

[12]The 11th Amendment to the Constitution makes states generally immune from suit by private parties in federal court unless (1) abrogated by Congress, (2) waived by the state, or (3) in suites against individual state officers for prospective relief to end an ongoing violation of federal law.

[13]The Fifth, Seventh and Tenth Circuits have held that §252(e)(6) does not violate the Eleventh Amendment, both because the state utility commissioners knowingly and voluntarily waived immunity by accepting the congressionally bestowed gratuity of participating in the process of approving interconnection agreements and because suits are permitted for prospective relief against individual commissioners. Only the Fourth Circuit reached a different conclusion.

[14]The Global Order is a PUC order addressing a number of pending issues that were consolidated for review.

The PUC established the initial UNE (Unbundled Network Elements) leasing rates in 1997. These rates are pending in federal court after challenge by a CLEC.[15] Specific issues under review in this case included directory and publishing services, UNE prices and collocation of remote switching modules (RSM).[16] Subsequent UNE rates established by the Global Order are also on appeal to both state and federal court.[17, 18]

Universal Service Provisions. The act establishes the Federal State Joint Board to define and recommend to the FCC the services to be supported by federal universal service programs. The act further directs intrastate telecommunications service providers to contribute to state universal service programs as mandated by the states.[19] However, states' requirements must be consistent with FCC universal service regulations and must be supported by "specific predictable and sufficient mechanisms" that "do not rely on or burden federal universal support mechanisms."[20] See Appendix N for additional information.

Special Provisions Concerning Bell Operating Companies. A principal goal of TA-96 in its efforts to promote competition is to do away with the local monopolies created by the break-up of AT&T into the regional Bell operating companies (RBOCs) in 1984. To this end, TA-96 includes provisions that prohibit these companies from entering the long-distance market until they have complied with FCC requirements for permitting local access for competitors.[21] Applications for entry into the long distance market by the RBOC must be filed with the FCC on a state-by-state basis. Once filed, the FCC has 90 days to determine whether a RBOC has taken the statutorily required steps to open its telecommunications markets to competition, including compliance with TA-96's 14-point competitive checklist. State commission involvement in the process is limited to verifying compliance of the RBOC with the checklist. RBOCs in 35 states, including Pennsylvania, have been approved to offer long distance service as of December 2002, according to the FCC.[22]

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[15]MCI v. Bell Atlantic – PA et al, 271 F.3d 491 (3rd Cir. 2001), *cert. denied*, 123 S.Ct. 340 (2002). The UNE issue has been remanded to District Court.

[16]RSMs are a single piece of equipment that enables the CLEC, in this case, to perform several functions including both interconnection and switching.

[17]MCI v. PUC, 763 A.2d 440 (2000). This case has been appealed to the Pennsylvania Supreme Court (1 EAP 2002). The appeal raises two issues: the Commonwealth Court's jurisdiction over the matter and, if jurisdiction is upheld, whether the Commonwealth Court erred in upholding the UNE rates.

[18]The UNE rates were appealed to the federal district court at the same time that appeal was taken to Commonwealth Court. The parties moved to consolidate this review of the UNE rates with the review of the 1997 rates. This case is pending in the U.S. District Court for the Eastern District of Pennsylvania (Civil Actions 99-5391 and 03-685).

[19]The act does not define "intrastate telecommunications service providers," therefore it is unclear which providers would participate, e.g., wireless carriers.

[20]47 U.S.C. §254(f).

[21]47 U.S.C. §271.

[22]States where applications have been approved as of December 2002 include California, Florida, New Jersey, New York, Pennsylvania, and Virginia.

The Federal Courts and TA-96

The federal courts have upheld the FCC's authority to implement key provisions of TA-96, if not the manner in which the FCC attempted to implement the act. The U.S. Supreme Court upheld the authority of the FCC to mandate a forward-looking pricing methodology called total element long run incremental cost (TELRIC) which establishes appropriate prices to be imposed on ILECs for interconnection and lease of unbundled network elements.[23] State regulatory commissioners are required to use a TELRIC methodology to calculate interconnection pricing for arbitrated interconnection agreements.[24] The Supreme Court also upheld the FCC's jurisdiction to promulgate pricing rules for the state commission review of interconnection agreements that pre-date TA-96 implementation.[25] The FCC regulation that required all agreements be submitted to the state commissions, including both those agreements negotiated and those enacted prior to implementation of TA-96, was later invalidated. A U.S. Court of Appeals found that the TA-96 provision requiring the submission of agreements negotiated prior to the enactment of the act applied only to any agreement (1) both negotiated and entered into after the act went into effect or (2) is an interconnection agreement that was negotiated but not yet entered into when the act went into effect.[26]

The courts have also held a state commission order requiring an ILEC to offer network elements at published rates and to combine unbundled elements at their competitors' request to violate TA-96. In particular, the publication of rates was found to eliminate any incentive to engage in private negotiation, which is a centerpiece of the act.[27]

The FCC's collocation order was vacated due to its overly broad definitions of "necessary" and "physical collocation." Although certain aspects of the order were upheld, e.g., cageless collocation and the cost allocation rule, the portion of the rule requiring LECs to give competitors the option of collocating equipment in any unused space within the LEC's premises was found to be unreasonable.[28] The courts have also twice struck down the FCC's rules for unbundled network elements, finding that the FCC had not given sufficient significance to the impairment standard. The courts have interpreted impairment to require the unbundling of only those elements that would impair the viability of entrance into the market taking into consideration whether there are competitive alternative sources of supply in different markets. Other sources can be self-provisioning by the requesting carrier or

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[23]AT&T Corp. et al v. Iowa Utilities Board, 525 U.S. 366 (1999).
[24]TELRIC models calculate the cost of a network element based on the long-term incremental cost of its production, including depreciated costs of equipment and facilities used solely for that element as well as a proportional allocation of costs of shared equipment and facilities. It is based on a hypothetical, ideally efficient telephone network, and not actual or historical costs.
[25]AT&T Corp. et al v. Iowa Utilities Board, 525 U.S. 366 (1999).
[26]Iowa Utilities Board, et al. v. FCC, 219 F. 3d 744 (U.S.C.A. 2000).
[27]Verizon North, Inc. v. Strand et al., 140 F.Supp 2d 803 (USDC 2000).
[28]GTE Service Corp. v. FCC, 205 F.3d 416 (U.S.C.A. D.C. 2000).

acquiring an alternative from a third-party supplier. This decision also addressed the line sharing order finding that the FCC in ordering unbundling of the high frequency spectrum of copper loop so as to enable CLECs to provide DSL services failed to consider the relevance of competition in broadband services coming from cable. The court vacated all the unbundling rules effective February 20, 2003.[29] The United States Supreme Court denied certiorari in March 2003.

In February 2003, the FCC announced that it would be adopting new rules for incumbents to make elements of their network available on an unbundled basis to new entrants. Such rules are to be released in the near future. According to the FCC's announcement, in the parts of the new rules addressing broadband issues:

> The Commission provides substantial unbundling relief for loops utilizing fiber facilities: (1) the Commission requires no unbundling of fiber-to-the home loops; (2) the Commission elects not to unbundle bandwidth for the provision of broadband services for loops where incumbent LECs deploy fiber further into the neighborhood but short of the customer's home (hybrid loops), although requesting carriers that provide broadband services today over high capacity facilities will continue to get that same access even after this relief is granted, and (3) the Commission will no longer require that line-sharing be available as an unbundled element. The Commission also provides clarification on its UNE pricing rules that will send appropriate economic signals to carriers.[30]

As part of this review of the UNE policies, the FCC was seeking comment on whether and how to carryout the encouragement of advanced telecommunications capabilities as an explicit factor in the UNE analysis. In general, the FCC is analyzing the application of interconnection requirements to further other goals of the act. The FCC's rules are expected to be issued in Summer 2003.

State Implementation of TA-96 Policies

The FCC is charged with developing policy to implement the provisions of TA-96, and the Federal Courts have the sole authority to determine whether the FCC is interpreting the act correctly in its policies and regulations. In addition, the act directs the FCC to review all regulations issued under the act every two years to determine if any such regulation is unnecessary as the result of meaningful economic competition between providers of such service. Therefore, changes to policies and their application are ongoing. State commission policies that are based on federal policies also continue to be modified as a result of FCC modifications or federal court interpretations.

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[29]United States Telecom Association, et al. v. FCC, 290 F.3d 415 (U.S.C.A. 2002).
[30]FCC Press Release February 20, 2003.

For example, the PUC noted in one order where an FCC order was under review by a federal court and a PUC order that conflicted with the FCC order was being challenged, that although the court may reverse the FCC order, letting stand the provisions of the PUC order, the PUC had to comply with the order under review and proceed accordingly. The order stated that the PUC could not "wait for the Eighth Circuit Court to act."[31]

In general, the FCC and courts have held that the language of a state law or regulation may conflict with that of TA-96 or FCC orders implementing the act, as long as the state interprets the state law or regulation to comply with TA-96.[32] In effect, numerous provisions of Chapter 30 have been modified by TA-96, FCC orders and court interpretations. These modifications affected the implementation of Chapter 30 and are addressed throughout this report.

[31]*IntraLATA Presubscription Implementation Petition for Regional Implementation of Permanent Local Number Portability, Docket Nos. I-00940034, P-00961103*; Order entered May 9, 1997, p. 3.

[32]Recently, in Voices for Choices et al. v. Illinois Bell Telephone et al., Docket No. 03 C 3290 (USDC 2003), the U.S. District Court for the Northern District of Illinois granted a preliminary injunction enjoining implementation of a recently enacted state statute that directly conflicts with provisions of TA-96.

III. Appendices

APPENDIX A

Summary of Popowsky v. PUC, 669 A.2d 1029 (PA Cmwlth 1995)

Background: Irwin A. Popowsky, the Consumer Advocate of Pennsylvania and others[a] appealed the decision of the PUC approving Bell Atlantic-Pennsylvania, Inc.'s initial petition and plan for alternative form of regulation under Chapter 30.

Issues Addressed:

1. Use of Rate of Return Analysis. The challengers argued that the PUC was required to determine whether Bell was obtaining excess earnings under its existing rates, based on numerous cases in which "just and reasonable" had acquired the technical meaning of a rate that will give the utility a fair rate of return. The Court held it "is within the Commission's discretion to determine whether it wishes to apply this analysis to determine the fair value of the utility's property."

2. Price Stability Mechanism. The challengers argued that the Commission erred in determining that the inflation offset in Bell's price stability mechanism should be 2.93 percent claiming it was based on general historic data that had no relationship to Bell's current rate structure. The challengers argued for a higher offset based in part on the projected productivity. The challengers also argued for the inclusion of a stretch factor which would account for additional productivity gains that can reasonably be expected to occur under a system of incentive regulation. The Court held that although conflicting testimony was presented regarding the computation of the offset, the Commission concluded that the figure given by the Cable Association was the most accurate and reliable since it was based upon the recent history regarding Bell's productivity growth. The Court did not disturb this conclusion. Similarly, divergent testimony was presented concerning the inclusion of the stretch factor in Bell's price stability mechanism. In concluding that the stretch factor was too uncertain and imprecise to include in the inflation offset, the Commission cited to Bell's evidence and the admission by the Consumer Advocate's witness that there is no precise magnitude at arriving at a stretch factor. The Court found this evidence sufficient to support the Commission's conclusion not to include the stretch factor in the offset value. However, the Court also held that the Commission erred in refusing to include an input price differential in Bell's inflation offset.

Appeal: On appeal to the Supreme Court of Pennsylvania,[b] the Court found the Commonwealth Court erred in vacating the price stability mechanism and remanding for recalculation including an input price differential.

3. Competitive Service Designation. The challengers objected to the Commission's classification of billing and collection, directory advertising, centrex, paging, repeat call, and speed dialing services being competitive because the Commission failed to make findings of fact as required by Chapter 30 prior to classifying services as competitive. The Court found that the Commission failed to make the required findings of fact and reversed.

Appeal: On Appeal to the Pennsylvania Supreme Court,[b] the Court found the Commonwealth Court erred in vacating the PUC's designation of competitive services. The Supreme Court held that the PUC made the necessary findings for purposes of designating the services competitive.

Appendix A (Continued)

4. Competitive Safeguards. The Challengers appealed the Commission's determination that the competitive safeguards were not threshold criteria that must be met prior to the classification of a competitive service. The Commission reasoned that since it had not yet promulgated regulations pertaining to the subsidization requirement, Bell could not comply with it. Additionally, the Commission reasoned that the imputation requirement can only be implemented after the subsidization and unbundling requirements have been satisfied. The Court held that the plain language of Chapter 30 provides that the Commission, in approving a petition for alternative form of regulation, must ensure that the grant of the petition will not "unduly or unreasonably prejudice or disadvantage a customer class or providers of competitive services." Therefore, the Commission's finding that Bell's plan lacks competitive safeguards with respect to the centrex, paging, repeat call, and speed dialing services completely precludes their classification as being competitive until the competitive safeguards are imposed. Because the Commission did not address competitive safeguards for directory advertising and billing and collection services, the matter was remanded to the Commission in order to do so. Until the required findings are made, the Commission was directed to modify Bell's alternative form of regulation to include these revenue streams in Bell's pricing mechanism.

Appeal: On appeal to the Supreme Court of Pennsylvania,[b] the Court found the Commonwealth Court erred in reversing or vacating the Commission's classification of services without a prior determination that competitive safeguards are in place. The Supreme Court noted that the Legislature did not explicitly require pre-existing competitive safeguards and the PUC's procedure of classifying services prior to establishing competitive safeguards eliminated years of delay which clearly furthered the Legislature's policy of accelerated implementations of a network.

5. Modification of Network Modernization Plan. Challengers objected to the Commission's decision to modify Bell's network modernization plan arguing that it was without authority to modify the plan and instead should have rejected it. The Commission found the plan failed to meet the criteria in the act of balanced deployment. The Commission also concluded Bell's deployment rate was inadequate. The Commission reclassified several areas from urban to suburban, accelerated the proposed deployment and required Bell to submit a three-year deployment plan that contained more detail such as the location of the upgrades in switches and the location for the placement of fiber optic lines. The Court held that the Commission's decision to modify the plan was in accordance with the primary purpose of Chapter 30, i.e., to encourage the accelerated deployment of a state of the art broadband communications network throughout the Commonwealth.

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[a]Pennsylvania Cable Television Association; MCI Telecommunications Corporation, Inc.; Central Atlantic Payphone Association; AT&T Communications of Pennsylvania, Inc.; Digital Direct of Pittsburgh, Inc.; and the City of Pittsburgh.

[b]Popowsky v. PUC, 550 Pa. 449 (1997).

APPENDIX B

States Without Rate Base/Rate of Return Regulation Prior to 1994

Prior to 1994, more than one-half of the states had started to set the retail price for local telephone services for their largest carriers through "deregulation" or through alternative forms of economic regulation other than rate base/rate of return. These include:

1. Alabama—1986
2. California—1990
3. Colorado—1993
4. Connecticut—1987
5. District of Columbia—1993
6. Florida—1988
7. Georgia—1991
8. Idaho—1988
9. Illinois—1989
10. Kansas—1990
11. Kentucky—1988
12. Louisiana—1992
13. Maryland—1990
14. Michigan—1990
15. Minnesota--1990
16. Mississippi—1990
17. Missouri—1990
18. Nebraska—1987
19. Nevada—1991
20. New Jersey—1987
21. New York—1993
22. North Dakota—1990
23. Oregon—1992
24. Rhode Island—1992
25. South Carolina—1992
26. Tennessee—1990
27. Texas—1990
28. Washington—1990
29. West Virginia--1988
30. Wisconsin—1987

Source: Abel, J and M. Clements. *A Time Series and Cross-Sectional Classification of State Regulatory Policy Adopted for Local Exchange Carriers*, Columbus, Ohio: The National Regulatory Research Institute, 1998.

APPENDIX C

How Today's Telephone Network Works

Today's telephone network starts at home with a pair of copper wires, which transmit your voice as an analog signal. These copper wires run in the air on poles (or underground) from the home to various structures that may look like small rectangular "boxes" in the neighborhood. The initial copper wire pairs running from your home through the neighborhood are in small cable that may contain 25 to 50 pairs of copper wire.

The small cables run to other neighborhood structures. Such structures contain large punch-down panels where phone company employees attach each pair from the smaller cables running through the neighborhood to correct pairs in larger cables. Depending upon where you are located, the thick cable will run directly to the phone company's "switch" in your area or to another larger structure, which is powered.

Today phone companies move nearly all voice traffic as digital rather than analog signals. The larger powered structures, therefore, contain digital concentrators. Each pair of copper wire is attached to a "digital concentrator." The concentrator "digitizes" your analog voice signal, combines it with dozens of others, and sends all of the calls from your area down a single wire (usually, a coax cable or a fiber optic cable which can carry digital information over long distances) to the phone company office switch. (These large powered structures also accept larger lines--like T 1 and T 3 lines--carrying voice channels, and the digital concentrator breaks down the multiplexed lines into individual pairs.)

At the office, your telephone line connects into a "line card" at the company switch. This connection allows you to hear a dial tone when you pick up your home phone. If you are calling someone whose line is connected to the same phone office, the switch creates a "loop" between your phone and the phone of the person you called. If you place a long distance call, your voice is digitized and combined with millions of other voices on the long-distance network. Today, computerized switching (rather than mechanical switching) creates the connections at each end of a call.

Physical wires still connect you to the party called at each end. Computers, however, connect the parties together at each office. Computers in each office pass the telephone number along as digital data via lines connected between the switches.

Source: Developed by LB&FC staff from www.howstuffworks.com.

APPENDIX D

Digital Switching

Small Company Group – Plan A

Company	% Deployment as of NMP Approval Date	Projected Date for 100% Deployment
Buffalo Valley Telephone Company	100% - 1998 but the central office switching system does not currently support the transmission at 1.544 mbps (i.e., the Chapter 30 transmission standard)	100% meet Chapter 30 transmission standard in 2015 (i.e., the Chapter 30 target date of Dec. 31, 2015)
Conestoga Telephone and Telegraph Company	100% - 1998 but the central office switching system does not currently support the transmission at 1.544 mbps	100% meet Chapter 30 transmission standard in 2015
Denver and Ephrata Telephone and Telegraph Company	100% - 1998 and the central office switching system supports bandwidths at 64 kilobits per second (kbps) with trunk connections at 1.544 mbps	NA
North Pittsburgh Telephone Company	100% - 1998 and the central office switching system is capable of supporting bandwidth transmissions up to 1.544 mbps	NA

Small Company Group – Plan B

Company	% Deployment as of NMP Approval Date	Projected Date for 100% Deployment
Armstrong Telephone Company – Pennsylvania	100% - 1998 but the switching system does not support transmission at 1.544 mbps (i.e., the Chapter 30 transmission standard)	100% meet Chapter 30 transmission standard in 2015 (i.e., the Chapter 30 target date of Dec. 31, 2015)
Armstrong Telephone Company - North	100% - 1998 but the switching system does not support transmission at 1.544 mbps	100% meet Chapter 30 transmission standard in 2015
Bentleyville Telephone Company	100% - 1998 and only 50% of the switching system can support transmission at 1.544 mbps	100% meet Chapter 30 transmission standard by no later than the year 2003
Hickory Telephone Company	100% - 1998 but the switching system does not support transmission at 1.544 mbps	100% meet Chapter 30 transmission standard by 2005

Appendix D (Continued)

Small Company Group – Plan B (Continued)

Company	% Deployment as of NMP Approval Date	Projected Date for 100% Deployment
Lackawaxen Telephone Company	100% - 1998 but the switching system does not support transmission at 1.544 mbps	100% meet Chapter 30 transmission standard in 2015
Laurel Highland Telephone Company	100% - 1998 but the switching system does not support transmission at 1.544 mbps	100% meet Chapter 30 transmission standard in 2015
Marianna & Scenery Hill Telephone Company	100% - 1998 but the switching system does not support transmission at 1.544 mbps	100% meet Chapter 30 transmission standard by 2015
North-Eastern Pennsylvania Telephone Company	100% - 1998 but the switching system does not support transmission at 1.544 mbps	100% meet Chapter 30 transmission standard by 2010
North Penn Telephone Company	100% - 1998 but the switching system does not support transmission at 1.544 mbps	100% meet Chapter 30 transmission by 2015
Palmerton Telephone Company	100% - 1998 and the central office switching system can support bandwidths up to 1.544 mbps by using an ISDN Primary Rate Inteface (PRI) access link and the National ISDN-2 feature of Dialable Wideband Service (DWS)	(But DWS requires the subscriber to have both a PRI line and ISDN-compatible terminating equipment on premises and to be calling another PRI line over a fully digital network. If there is a demand for this transmission capability in the future, the Company would make the required central office upgrade to provide it.)
Pennsylvania Telephone Company	100% - 1998 but the switching system does not support transmission at 1.544 mbps	100% meet Chapter 30 transmission standard in 2015
Pymatuning Independent Telephone Company	100% - 1998 but the switching system does not support transmission at 1.544 mbps	100% meet Chapter 30 transmission standard in 2015
South Canaan Telephone Company	100% - 1998 but the switching system does not support transmission at 1.544 mbps	100% meet Chapter 30 transmission standard in 2015
Venus Telephone Corporation	100% - 1998 but the switching system does not support transmission at 1.544 mbps	100% meet Chapter 30 transmission standard in 2015
Yukon-Waltz Telephone Company	100% - 1998 but the switching system does not support transmission at 1.544 mbps	100% meet Chapter 30 transmission standard in 2015

Source: Developed by LB&FC staff from PUC-approved network modernization plans.

APPENDIX E

Intelligent Network Signaling Capacity Availability

Small Company Group – Plan A

Company	% Deployment as of NMP Approval Date	Projected Date for 100% Deployment
Buffalo Valley Telephone Company	100% - 1998	NA
Conestoga Telephone and Telegraph Company	100% - 1998	NA
Denver and Ephrata Telephone and Telegraph Company	100% - 1998	NA
North Pittsburgh Telephone Company	100% - 1998	NA

Small Company Group – Plan B

Company	% Deployment as of NMP Approval Date	Projected Date for 100% Deployment
Armstrong Telephone Company –Pennsylvania	100% - 1998	NA
Armstrong Telephone Company - North	100% - 1998	NA
Bentleyville Telephone Company	100% - 1998	NA
Hickory Telephone Company	100% - 1998	NA
Lackawaxen Telephone Company	100% - 1998	NA
Laurel Highland Telephone Company	100% - 1998	NA
Marianna & Scenery Hill Telephone Company	100% - 1998	NA
North-Eastern Pennsylvania Telephone Company	100% - 1998	NA
North Penn Telephone Company	100% - 1998	N/A
Palmerton Telephone Company	100% - 1998	NA
Pennsylvania Telephone Company	100% - 1998	NA

Appendix E (Continued)

Small Company Group – Plan B (Continued)

Company	% Deployment as of NMP Approval Date	Projected Date for 100% Deployment
Pymatuning Independent Telephone Company	100% - 1998	NA
South Canaan Telephone Company	100% - 1998	NA
Venus Telephone Corporation	100% - 1998	NA
Yukon-Waltz Telephone	100% - 1998	NA

Source: Developed by LB&FC staff from PUC-approved network modernization plans.

APPENDIX F

Integrated Services Digital Network (ISDN) Availability

Small Company Group – Plan A

Company	% Deployment as of NMP Approval Date	Projected Date for 100% Deployment
Buffalo Valley Telephone Company	100% - on a trial basis in 1998	100% by 2003[a]
Conestoga Telephone and Telegraph Company	100% - currently available	NA[a]
Denver and Ephrata Telephone and Telegraph Company	Can make available 100% of its customers, but the company believes not in the public interest	NA
North Pittsburgh Telephone Company	100% - currently capable to deploy	NA[a]

Small Company Group – Plan B

Company	% Deployment as of NMP Approval Date	Projected Date for 100% Deployment
Armstrong Telephone Company Pennsylvania	Not ISDN-enabled, but by using central office infrastructure sharing with Bell-Atlantic Pennsylvania, Inc., the Company can make ISDN available to subscribers who wish it[a] in 1998	Not given. The company noted that ISDN may itself become outmoded.
Armstrong Telephone Company - North	Not ISDN-enabled, but by using central office infrastructure sharing with Bell-Atlantic Pennsylvania, Inc., the Company can make ISDN available to subscribers who wish it[a] in 1998	Not given. The company noted that ISDN may itself become outmoded.
Bentleyville Telephone Company	Through infrastructure sharing, the Company can make ISDN available to subscribers who wish it within 60 days of request in 1998[a]	100% ISDN or a technological equivalent enablement by no later than the year 2003
Hickory Telephone Company	Limited capacity – 1998	Goal to provide ISDN or a technological equivalent to any subscriber requesting it by mid-1999[a]
Lackawaxen Telephone Company	Not ISDN capable in 1998	Goal to provide 100% ISDN or a technological equivalent to any subscriber requesting it by Dec. 31, 2015[a]

Appendix F (Continued)

Small Company Group – Plan B (Continued)

Company	% Deployment as of NMP Approval Date	Projected Date for 100% Deployment
Laurel Highland Telephone Company	Would have limited capacity by the end of 1998	Goal to provide ISDN or equivalent to any subscriber requesting it by 2003[a]
Marianna & Scenery Hill Telephone Company	One central office is ISDN-enabled – therefore limited capacity[a] in 1998	Not given. The Company noted that ISDN may itself become outmoded.
North-Eastern Pennsylvania Telephone Company	1% (percentage of access lines) ISDN availability in 1998	2015
North Penn Telephone Company	Not ISDN-enabled in 1998	Goal to provide 100% ISDN or technological equivalent to subscribers by end of 2003[a]
Palmerton Telephone Company	Some ability to provide ISDN by the end of 1998	Goal to provide ISDN or technological equivalent to subscribers requesting it by 2003
Pennsylvania Telephone Company	Not ISDN-enabled, but through infrastructure sharing with Bell Atlantic-Pennsylvania, Inc., the Company has the ability to make ISDN available in 1998	Not given. The Company noted that ISDN itself may become outmoded
Pymatuning Independent Telephone Company	88% (percentage of access lines) ISDN capability by 10/1/98	100% - Dec. 31, 2015[a]
South Canaan Telephone Company	Not ISDN-enabled in 1998	Goal to provide ISDN or technological equivalent to 100% of its subscribers requesting it by Dec. 31, 2015
Venus Telephone Corporation	Not ISDN-enabled, but through infrastructure sharing, the Company can make ISDN available to subscribers who wish it within 60 days of request in 1998[a]	Not given
Yukon-Waltz Telephone Company	Not ISDN-enabled, but through infrastructure sharing with Bell Atlantic-Pennsylvania, Inc., the Company can make ISDN available to subscribers who request it[a]	100% by 2008 (Company noted: assuming sufficient demand exists)

[a]The Company noted it may need up to 60 days to process some customer orders. As the service is more widely deployed, there will be fewer situations requiring 60 days to fill an ISDN order.

Source: Developed by LB&FC staff from PUC-approved network modernization plans.

APPENDIX G

Interoffice Fiber Optic (or Equivalent) Trunk Lines

Small Company Group – Plan A

Company	% Deployment as of NMP Approval Date	Projected Date for 100% Deployment
Buffalo Valley Telephone Company	100% - 1998	NA
Conestoga Telephone And Telegraph Company	100% - 1998	NA
Denver and Ephrata Telephone and Telegraph Company	100% - 1998	NA
North Pittsburgh Telephone Company	100% - 1998	NA

Small Company Group – Plan B

Company	% Deployment as of NMP Approval Date	Projected Date for 100% Deployment
Armstrong Telephone Company Pennsylvania	100% - 1998 - Company has only one central office	NA
Armstrong Telephone Company - North	100% - 1998 - Company has only one central office	NA
Bentleyville Telephone Company	100% - 1998 - Company has only one central office	NA
Hickory Telephone Company	100% - 1998 - Company has only one central office	NA
Lackawaxen Telephone Company	100% - 1998 - Company has only one central office	NA
Laurel Highland Telephone Company	100% - 1998	NA
Marianna & Scenery Hill Telephone Company	100% - 1998	NA
North-Eastern Pennsylvania Telephone Company	100% - 1998	NA
North Penn Telephone Company	63% - 1998	100% all remaining trunks to fiber (without diversity) – 1999 100% to fiber (with diversity) – 2001
Palmerton Telephone Company	100% - 1998	NA
Pennsylvania Telephone Company	100% - 1998 – Company has only one central office	NA

Appendix G (Continued)

Small Company Group – Plan B (Continued)

Company	% Deployment as of NMP Approval Date	Projected Date for 100% Deployment
Pymatuning Independent Telephone Company	100% - 1998 – Company has only one central office	NA
South Canaan Telephone Company	100% - 1998 – Company has two central offices	NA
Venus Telephone Corporation	100% - 1998 – Company has only one central office	NA
Yukon-Waltz Telephone	100% - 1998 – Company has only one central office	NA

Source: Developed by LB&FC staff from PUC-approved network modernization plans

APPENDIX H

Distribution Facilities – Broadband Facilities Adjacent to Public Schools, Industrial Parks, and Health Care Facilities

Small Company Group – Plan A

Company	% Deployment as of NMP Approval Date	Date for100% Deployment (Projected Dates in Parentheses)
Buffalo Valley Telephone Company	50 facilities identified - 1998	100% - (2003)
Conestoga Telephone and Telegraph Company	Over 70 facilities identified – 1998	100% - (2003)
Denver and Ephrata Telephone and Telegraph Company	Over 60 facilities identified - 1998	Not given
North Pittsburgh Telephone Company	A number (not specific) - 1998	100% - 2002

Small Company Group – Plan B

Company	% Deployment as of NMP Approval Date	Date for100% Deployment (Projected Dates in Parentheses)
Armstrong Telephone Company Pennsylvania	Company has 0 of these facilities in its territory - 1998	NA
Armstrong Telephone Company – North	1 public school; 0 industrial parks; 0 health care facilities – 1998	100% - 2000
Bentleyville Telephone Company	3 public schools; 1 industrial park; 0 health care facilities – 1998	100% - as the circumstance requires
Hickory Telephone Company	1 public school; 0 industrial parks; 2 health care facilities – 1998	Goal is to make broadband services available on five days notice by end of 2003
Lackawaxen Telephone Company	Company has 0 of these facilities in its territory - 1998	NA
Laurel Highland Telephone Company	3 public schools; 0 industrial parks; 6 health care facilities – 1998	100% - 1998
Marianna & Scenery Hill Telephone Company	3 public schools; 0 industrial parks; 0 health care facilities - 1998	100% - (2003)
North-Eastern Pennsylvania Telephone Company	Subscriber groups - (no specific number given) – 1998	100% - 1998

Appendix H (Continued)

Small Company Group – Plan B (Continued)

Company	% Deployment as of NMP Approval Date	Date for100% Deployment (Projected Dates in Parentheses)
North Penn Telephone Company	3 public schools; 0 industrial parks; 0 health care facilities – 1998	100% -(2003)
Palmerton Telephone Company	7 public schools; 0 industrial parks; 10 health care facilities – 1998	Goal is to make broadband services available on 5 days notice within the next five years
Pennsylvania Telephone Company	1 public school; 0 industrial parks; 0 health care facilities – 1998	100% - 1998
Pymatuning Independent Telephone Company	2 public schools; 2 industrial parks; 0 health care facilities – 1998	100% - 1998
South Canaan Telephone Company	4 public schools; 0 industrial parks; 3 health care facilities – 1998 – broadband services currently available on 5 days notice to 6 of these 7 facilities in the Company's territory	100% - (2003)
Venus Telephone Corporation	1 public school; 0 industrial parks; 0 health care facilities – 1998	100% - 1998
Yukon-Waltz Telephone Company	Company has 0 of these facilities in its territory - 1998	NA

Source: Developed by LB&FC staff from PUC-approved network modernization plans.

APPENDIX I

Broadband Availability
Within Sixty Days and Within Five Days

Small Company Group – Plan A

Company	% Deployment as of NMP Approval Date	Projected Date for 100% Deployment	
		Sixty days	Five days
Buffalo Valley Telephone	*Sixty days:* 100%-1998 *Five days:* 10%-1998		30%-2003 50%-2008 70%-2013 100%-2015
Conestoga Telephone and Telegraph Company	*Sixty days:* 100%-1998 *Five days:* 10%-1998		30%-2003 50%- 2008 70%-2013 100%-2015
Denver and Ephrata Telephone and Telegraph Company	*Sixty days:* 100%-1998 *Five days:* 0%-1998		30%-2003 50%-2008 70%-2013 100%-2015
North Pittsburgh Telephone Company	*Sixty days:* 100%-1998 *Five days:* 50%-1998		80%-2003 98%-2008 100%-2013

Small Company Group – Plan B

Company	% Deployment as of NMP Approval Date	Projected Date for 100% Deployment	
		Sixty days	Five days
Armstrong Telephone Company Pennsylvania	*Sixty days:* NA *Five days:* 0%-1998		15%-2003 30%-2008 75%-2013 100%-2015
Armstrong Telephone Company – North	*Sixty days:* NA *Five days:* 0%-1998		10%-2003 30%-2008 70%-2013 100%-2015
Bentleyville Telephone Company	*Sixty days:* 100%-1998 *Five days:* 10%-1998		30%-2003 50%-2008 70%-2013 100%-2015
Hickory Telephone Company	*Sixty days:* 50%-1998 *Five days:* 1%-1998	100%-2003	10%-2003 30%-2008 70%-2013 100%-2015

Appendix I (Continued)

Small Company Group – Plan B (Continued)

Company	% Deployment as of NMP Approval Date	Projected Date for 100% Deployment	
		Sixty days	Five days
Lackawaxen Telephone Company	*Sixty days:* 0%-1998 *Five days:* 0%-1998	10%-2003 30%-2008 70%-2013 100%-2015	5%-2003 20%-2008 50%-2013 100%-2015
Laurel Highland Telephone Company	*Sixty days:* NA *Five days:* <1%-1998		10%-2003 30%-2008 70%-2013 100%-2015
Marianna & Scenery Hill Telephone Company	*Sixty days:* NA *Five days:* 0%-1998		30%-2003 50%-2008 70%-2013 100%-2015
North-Eastern Pennsylvania Telephone Company	*Sixty days:* 100%-1998 *Five days:* 10%-1998		30%-2003 50%-2008 70%-2013 100%-2015
North Penn Telephone Company	*Sixty days:* 83%-1998 *Five days:* 52%-1998	83%-2003 89%-2008 95%-2013 100%-2015	83%-2003 86%-2008 90%-2013 100%-2015
Palmerton Telephone Company	*Sixty days:* 60%-1998 *Five days:* 40%-1998	100%-2003	50%-2003 75%-2008 90%-2013 100%-2015
Pennsylvania Telephone Company	*Sixty days:* NA *Five days:* 0%-1998		10%-2003 30%-2008 70%-2013 100%-2015
Pymatuning Independent Telephone Company	*Sixty days:* NA *Five days:* 88%-1998		92%-2003 96%-2008 100%-2013
South Canaan Telephone Company	*Sixty days:* NA *Five days:* <1%-1998		15%-2003 30%-2008 75%-2013 100%-2015
Venus Telephone Corporation	*Sixty days:* NA *Five days:* 0%-1998		10%-2003 30%-2008 70%-2013 100%-2015
Yukon-Waltz Telephone Company	*Sixty days:* NA *Five days:* <1%-1998		10%-2003 30%-2008 70%-2013 100%-2015

Source: Developed by LB&FC staff from PUC-approved plans.

APPENDIX J

Incumbent Local Exchange Carriers, by County

County	Local Exchange Carriers
Adams	GTE North; United/Sprint
Allegheny	ALLTEL PA; Armstrong; Bell; North Pittsburgh
Armstrong	ALLTEL PA; GTE North; North Pittsburgh; United/Sprint
Beaver	ALLTEL PA; Armstrong; Bell Atlantic PA
Bedford	Bell; Frontier; United/Sprint
Berks	Bell; Commonwealth; Conestoga; Denver and Ephrata; GTE North
Blair	Bell; United/Sprint
Bradford	Commonwealth; Frontier; North Penn
Bucks	Bell; Commonwealth
Butler	Bell; North Pittsburgh; United/Sprint
Cambria	ALLTEL PA; Bell; GTE North
Cameron	ALLTEL PA; Bell
Carbon	ALLTEL PA; Bell; GTE North; Palmerton
Centre	ALLTEL PA; Bell; TDS Telecom; United/Sprint
Chester	Bell; Commonwealth; Conestoga
Clarion	ALLTEL PA; Bell; United/Sprint; Venus
Clearfield	ALLTEL PA; Bell
Clinton	Bell; TDS Telecom; United/Sprint
Columbia	Bell; Commonwealth
Crawford	ALLTEL PA; Bell; GTE North
Cumberland	Bell; United/Sprint
Dauphin	Bell; Commonwealth, GTE North; TDS Telecom; United/Sprint
Delaware	Bell
Elk	ALLTEL PA; Bell
Erie	ALLTEL PA; GTE North
Fayette	Bell; GTE North; Laurel Highland
Forest	ALLTEL PA; Bell; Venus
Franklin	United/Sprint
Fulton	Frontier; United/Sprint
Greene	ALLTEL PA; Bell; West Side (WV)
Huntingdon	ALLTEL PA; Bell; United/Sprint
Indiana	ALLTEL PA; Bell; GTE North
Jefferson	ALLTEL PA; Bell
Juniata	Bell; United/Sprint
Lackawanna	Bell; Commonwealth; North Eastern; South Canaan

Appendix J (Continued)

County	Local Exchange Carriers
Lancaster	Bell; Commonwealth; Conestoga; Denver and Ephrata; United/Sprint
Lawrence	ALLTEL PA; Bell; GTE North; United/Sprint
Lebanon	Bell; GTE North
Lehigh	Bell; Commonwealth; GTE North; Ironton
Luzerne	Bell; Commonwealth
Lycoming	ALLTEL PA; Bell; Frontier; GTE North
McKean	ALLTEL PA; Armstrong; Bell; Frontier
Mercer	ALLTEL PA; Bell; GTE North; Pymatuning Independent; United/Sprint
Mifflin	Bell; United/Sprint
Monroe	Bell; Commonwealth; Palmerton
Montgomery	Bell; Conestoga
Montour	Bell
Northampton	Bell; Commonwealth
Northumberland	ALLTEL PA; Bell; Buffalo Valley; TDS Telecom
Perry	United/Sprint
Philadelphia	Bell
Pike	Bell; GTE North; Lackawanna
Potter	Bell; Frontier; GTE North
Schuylkill	ALLTEL PA; Bell; Commonwealth; Frontier; GTE North; TDS Telecom
Snyder	GTE North
Somerset	GTE North; United/Sprint
Sullivan	Commonwealth
Susquehanna	Commonwealth; North Eastern PA
Tioga	Bell; Commonwealth; Frontier; GTE North; North Penn
Union	ALLTEL PA; Buffalo Valley
Venango	ALLTEL PA; Bell; GTE North; United/Sprint; Venus
Warren	ALLTEL PA; Bell; GTE North
Washington	Armstrong; Bell; Bentleyville; GTE North; Hickory; Marianna & Scenery Hill
Wayne	Bell; GTE North; Hancock (NY); North Eastern; South Canaan; TDS Telecom
Westmoreland	ALLTEL PA; Bell; GTE North; Kecksburg; Laurel Highland; North Pittsburgh; Yukon-Waltz
Wyoming	Commonwealth
York	Commonwealth; GTE North; United/Sprint

Source: Pennsylvania Telephone Association.

APPENDIX K

PUC Final Rulemaking Re Public Utility Earnings

PENNSYLVANIA
PUBLIC UTILITY COMMISSION
Harrisburg, PA 17105-3265

Public Meeting held October 1, 1992

Commissioners Present:

David W. Rolka, Chairman
Joseph Rhodes, Jr., Vice Chairman
Wendell F. Holland, Commissioner

Final Rulemaking Re Public Utility Earnings
52 Pa. Code Chapter 71; Bell Petition For
Exclusion of Directory Services From
Earnings Disclosure Reports

Docket No. L-910061

O R D E R

BY THE COMMISSION:

In connection with the pending rulemaking proceeding at this docket pertaining to disclosure of the financial performance and earnings of Pennsylvania's public utilities, the Bell Telephone Company of Pennsylvania (Bell) filed on July 7, 1992 a petition requesting that the Commission "exclude immediately" from its reporting requirements the revenues, expenses and investment associated with paid directory advertising.

In support of its request, Bell states that paid directory advertising is a nonregulated competitive service that has never been subject to direct rates and service regulation by the Commission, that paid directory advertising revenues, expenses and investment are considered to be "nonregulated activities" for purposes of the FCC's Part 64 cost allocation rules, that excluding directory advertising earnings from Bell's earnings disclosure reports will have "no current impact" upon customer rates, and that

such exclusion will not foreclose subsequent consideration of whether the earnings from directory advertising and other directory services should continue to accrue to the benefit of Bell's telephone customers for intrastate ratemaking purposes. Bell Petition, p. 1.

In lieu of a formal answer to the petition, the Office of Consumer Advocate (OCA) filed on August 8, 1992 a settlement agreement between Bell and OCA which proposes to resolve the issues raised by the July 7 petition. The proposed settlement agreement provides, in essence, that Bell may exclude from its earnings disclosure reports to the Commission the revenues, expenses and investment associated with paid directory advertising and other directory services, but that on an annual basis Bell will submit, to OCA and to such other entities as the Commission may direct, financial information which discloses the company's earnings both with and without the earnings associated with directory services, using Part 64 cost allocation rules to identify directory revenues, expenses and investment. The settlement agreement goes on to provide that there shall be no finding as to whether directory services are competitive and no determination as to how the earnings from directory services shall be treated for intrastate ratemaking purposes in future rate proceedings. Bell/OCA Settlement Agreement, pp. 1-2.

Although the Commission has declined to exercise direct jurisdiction since 1943 over the rates or other terms and conditions of service for additional listings and paid directory

advertising in the company's classified directories, commonly known as Yellow Pages, see Felix v. Pa. P.U.C., 187 Pa. Superior Ct. 578, 164 A.2d 347 (1958), the Commission has nevertheless continued to exercise ancillary jurisdiction over directory services for intrastate ratemaking purposes.

As noted in Bell's petition, the Commission has historically included the revenues, expenses and investment associated with directory services such as Yellow Pages, special directories and additional listings in determining the company's overall earnings position and revenue requirement and in developing a just and reasonable rate structure. See Pa. P.U.C. v. Bell Telephone Company of Pennsylvania, Docket No. R-842779, 60 Pa. P.U.C. 435, 465-67 (1985). In addition to keeping local exchange service rates lower than they would be otherwise, the Commission's precedent and practice in this area recognizes that directory services are "incidental to the provision of regulated services and will induce increased usage of such services, accruing to the benefit of all ratepayers." Donnelley v. Bell Telephone Company of Pennsylvania, Docket No. C-871245 (February 19, 1988).

The issue presently before us, however, is a narrow one, namely, whether the Commission should modify its earnings reporting requirements for paid directory advertising in the manner proposed in the Bell/OCA settlement agreement. The Commission's regulations encourage parties to reach settlements and, based upon our review of the settlement terms and conditions, the Commission believes that the settlement should be approved and incorporated into our

reporting requirements and made applicable to all affected telephone companies (that is, telephone companies with paid director advertising revenues) for the following reasons.

First, it would enable the Commission to accommodate the telephone industry's concerns without requiring us to yield any ratemaking jurisdiction over directory services. Second, embedded directory services revenues included in the calculation of existing telephone company rates would not be affected; the settlement does not change the ratemaking status quo of including directory services revenues in the calculation of rates. Third, by providing an annual informational filing, the Commission can stay informed of directory services revenues data. Fourth, by requiring that directory services revenues be reported on an annual informational basis, the telephone companies will have some additional discretion to apply the related earnings to appropriate business activities, such as making network improvements. The annual informational filing is separate and apart from the quarterly financial reports. The quarterly financial reports, as compared to the annual informational filing, are designed to aid the Commission in monitoring telephone company earnings. We recognize that exclusion of directory services revenues from quarterly earnings reports will permit telephone companies to increase their non-monitored revenue base by an amount equal to the excluded revenues. The overall result of our action is consistent with the public interest provided that the telephone companies continue to make modernization improvements in their networks. We will, therefore,

require each telephone company to submit, on an annual basis, documentation depicting its level of investment in the network. For these reasons, we find that the Bell/OCA settlement agreement is in the public interest.

At the same time, consistent with the terms of the Bell/OCA settlement, we make no findings as to whether directory services are "competitive" and no findings as to how the earnings from directory services should be treated for intrastate ratemaking purposes in future proceedings; THEREFORE,

IT IS ORDERED:

1. That the Bell/OCA settlement agreement filed August 8, 1992 pertaining to paid directory advertising and the Commission's earnings reporting requirements is hereby approved, and shall be applicable generally to all affected telephone companies.

2. That on an annual basis, Bell and all affected telephone companies shall submit an informational filing with a calculation of earnings which includes earnings from directory services, using FCC Part 64 cost allocation rules to identify directory services revenues, expenses and investment and using the forms, schedules and due dates specified by the Commission for its earnings reporting requirements.

3. That the informational filing described in ordering paragraph 2 shall be submitted, on the same non-proprietary basis as under current practice, to the Commission, the Office of Consumer Advocate and the Office of Small Business Advocate.

4. That, on an annual basis, Bell and all affected telephone companies shall also submit, in conjunction with their earnings reports which include directory services, a report which describes their annual investment in the network.

5. That a copy of this order be served upon OCA, OSBA, Bell and all other affected telephone companies.

BY THE COMMISSION,

John G. Alford
Secretary

(SEAL)

ORDER ADOPTED: October 1, 1992

ORDER ENTERED: October 28, 1992

APPENDIX L

PUC Detariffing of Customer Premises Equipment

1 of 1 DOCUMENT

Detariffing of Customer Premises Equipment

Docket No. M-820334

PENNSYLVANIA PUBLIC UTILITY COMMISSION

1983 Pa. PUC LEXIS 90

January 13, 1983

[*1]

Commissioners Present: Susan M. Shanaman, Chairman; Michael Johnson; James H. Cawley; Linda C. Taliaferro; Clifford L. Jones

OPINION:
ORDER

BY THE COMMISSION:

The Federal Communication Commission's (FCC) Second Computer Inquiry decisions (Computer II) at FCC Docket No. 20828 have established a new regulatory scheme for the provision of customer premises equipment (CPE). In essence, the FCC has found that interstate and intrastate telephone company-provided CPE need not be subject to regulation any longer and that the provision of CPE under regulation impedes the evolution of a truly competitive telephone terminal equipment market. The FCC, therefore, further found that the orderly deregulation of CPE would be in the public interest.

Based upon these findings, Computer II provides for the detariffing of new CPE as of January 1, 1983 and, if offered by AT&T, it must be provided through a separate subsidiary thereafter. For embedded CPE, Computer II provides that the investment is to be capped as of December 31, 1982 and that the states will continue regulation of embedded CPE until an orderly transition procedure is determined in the Computer II implementation proceedings at FCC [*2] Docket No. 81-893.

In order to provide guidance and an orderly transition to the new regulatory scheme for CPE established by the FCC in Computer II, we issue the following

order applicable to all Pennsylvania jurisdictional telephone utilities. This order will summarize our existing policy views on the provision of CPE which, in most respects, coincides with the policy views of the FCC as expressed in Computer II and the policy views expressed in our recent telephone utility rate orders. This order will also summarize the procedural requirements and supporting data requirements necessary to effectuate these policy views concerning CPE; THEREFORE,

IT IS ORDERED:

1. That, within thirty (30) days of the entry date of this order, all Pennsylvania jurisdictional telephone utilities shall file appropriate revised tariffs, subject to Commission review and approval, to be effective for service rendered on and after January 1, 1983, which include the following:

(a) A petition for waiver of the 60-day notice requirement.

(b) A statement concerning CPE deregulation explaining what the company proposes to do after January 1, 1983 in response to Computer II.

(c) The unbundling of monthly [*3] basic service recurring charges. In addition, as part of the unbundling, telephone companies shall separate the "inside wire" charge in anticipation of the final action in FCC Docket No. 79-105.

(d) The establishment of multi-element service connection charges, if not already accomplished.

(e) The detariffing of new CPE for all grades of service, including party line service, effective January 1, 1983.

(f) An estimate of the revenue impact of the tariff filing. The revenue impact should be either zero or minimal.

(g) A grandfather provision for CPE associated with service to exisiting customers as of December 31, 1982.

2. That, effective January 1, 1983, all Pennsylvania jurisdictional telephone utilities shall take appropriate actions to comply with the following items concerning CPE:

(a) Existing customers may continue to lease embedded CPE from the company on a tariffed basis; the company may establish new rates for these customers through appropriate tariff filings.

(b) Telephone companies shall continue to service and maintain embedded CPE offered under tariff.

(c) One-party service customers may purchase CPE from the companies or other CPE vendors. Party line customers [*4] may purchase in-place CPE from the telephone company.

(d) Accounting for new CPE operations must be established below the line.

(e) Telephone companies shall be the provider of last resort for standard desk and wall telephones for all grades of service.

(f) Telephone companies shall establish a maintenance visit charge in their tariff relative to customer owned CPE.

(g) Telephone companies may develop (on a detariffed basis) a maintenance contract for customer owned CPE.

3. That, effective January 1, 1983, all Pennsylvania jurisdictional telephone utilities shall take appropriate actions to comply with the following additional items concerning CPE:

Appendix L (Continued)

(a) Embedded CPE shall remain under tariff pending final decision in the Computer II implementation proceedings at FCC Docket No. 81-893.

(b) The investment in CPE in Accounts 231 and 234 shall be capped as of December 31, 1982.

(c) Telephone companies shall continue to lease, on a tariffed basis, embedded CPE to existing customers as of December 31, 1982, for all grades of service.

(d) Telephone companies shall separate the CPE in Accounts 231 and 234 as CPE is defined in Computer II.

(e) Telephone companies shall keep further [*5] separate accounts for items of CPE to remain under tariff and those which will be offered for sale.

(f) The revenues and expenses of CPE sales shall be booked through accepted salvage accounting procedures as approved by the Commission.

4. That all telephone companies shall continue to offer inside wire for all grades of service until further notice.

5. That all telephone companies shall establish separate billings for their unregulated activities.

6. That all telephone companies shall follow the guidelines for accounting changes associated with detariffed CPE, as shown on Appendix A to this order.

7. That all telephone companies shall file, within 60 days of the entry date of this order, proposed tariff revisions designed to implement optional sales plans for embedded CPE, unless otherwise ordered by this Commission, based on the following guidelines:

(a) That telephone companies shall provide adequate supporting data and information applicable to the development of the proposed sale prices for embedded CPE.

(b) That telephone companies shall demonstrate the accounting procedures to be utilized under the optional sales plan.

(c) That telephone companies shall use net [*6] book value as the starting point for the development of sales prices for embedded CPE.

(d) That telephone companies shall provide tariff pages listing the sale prices for embedded CPE (i.e., in-place and inventory).

(e) That telephone companies shall provide an estimate of the revenue impact of the optional sales plan in terms of decreased CPE lease revenues and increased CPE sale revenues.

(f) That telephone companies shall provide a mechanism to notify customers of the optional sales plans (i.e., bill inserts, public posting, advertising).

(g) That the notification shall inform customers concerning the wide variety of vendors that sell CPE, while informing party line customers of the current problems associated with the purchase of CPE from other vendors due to ringer differences.

(h) That telephone companies shall establish minimum warranties on the CPE to be sold: in-place CPE shall have a 30 day limited warranty and CPE sold from inventory shall have a 90 day limited warranty.

(i) That telephone companies shall establish various optional payment plans.

(j) That telephone companies shall replace or repair all CPE during the warranty periods.

8. That, consistent with the [*7] final action at FCC Docket No. 81-216, all telephone companies shall file, within sixty (60) days of the entry date of this order, proposed tariff revisions designed to address the interconnection of new party line CPE to the network. The proposed tariff revisions shall include, but not be limited to, rates, rules and regulations concerning the modification of terminal equipment to make it compatible with party line service.

9. That, as with the deregulation and sale of CPE, all telephone companies shall develop plans in preparation for the deregulation and sale of inside wiring in anticipation of the final action in FCC Docket No. 79-105. At the present time, no filing of such plans with this Commission shall be required.

10. That all telephone companies shall file, within sixty (60) days of the entry date of this order, reports outlining the present status of the modularization program for inside wiring, the present policy regarding the conversion of inside wiring from hard wire to modular, and the changes, if any, to that policy in view of the deregulation of CPE mandated by Computer II.

11. That a copy of this Order be served on all Pennsylvania jurisdictional telephone [*8] utilities.

Appendix A

CPE

Accounting Procedures

Accounting for the separation of CPE and enhanced services from the tariffed services of a common carrier where the common carrier is not subject to the structural separation requirement. CPE and enhanced services are to be taken out of regulation as of January 1, 1983. This creates the need to separate CPE and enhanced services from tariffed services of the common carrier. Thus, the associated revenues, investments and expenses of CPE and enhanced services should be charged to non-operating accounts. The segregation of CPE and enhanced services from tariffed services should be based on actual, allocated, or apportioned costs. Use of allocated or apportioned costs should be logical and verifiable.

When deregulated, CPE and enhanced services should be excluded from the plant-in-service accounts. The new activity will separate and distinguish the detariffed services from the tariffed services. This will involve the utilization of Account 103, Miscellaneous Physical Property, for enhanced services and new CPE, instead of Accounts 231 and 234. CPE which is not being leased should be reclassified to Account [*9] 124, Merchandise and Material Held for Sale.

The related depreciation and amortization reserves should be reclassified from Accounts 171 and 172 to Account 174, Other Deferred Credits. Separate subaccounts, for Account 176, Accumulated Deferred Income Taxes should be established to accommodate the reclassification of unamortized investment tax credit and deferred taxes as they relate to deregulated CPE and enhanced services.

Expenses pertaining to detariffed CPE should be reclassified below the line to Account 316, Miscellaneous Income. Expenses for enhanced services should be reclassified to Account 315, Income from Miscellaneous Physical Property.

Taxes charged for CPE and enhanced services should likewise be reclassified below the line to Account 326, Federal Income Taxes - Non-operating. Account 327, Other Non-operating Taxes, should be charged for taxes Other than Federal Income Taxes.

Accounting for Sale of Embedded Customer Premise Equipment Under Tariff

Section 31.17(b) of the Uniform System of Accounts provides that "at the time of retirement of depreciable telephone plant, the depreciation reserve account shall be charged with the original cost of the property [*10] retired plus the

cost of removal (expense) and shall be credited with the salvage value (revenues) . . . recovered, if any". Applying this rule, all transactions involving the sale of embedded CPE should be reflected in Account 171, Depreciation Reserve. This treatment is referred to as "salvage accounting".

With respect to the sale of embedded CPE on a full scale basis, it is proper to record in the depreciation reserve all proceeds (salvage) received and expenses (cost of removal) incurred in connection with such sales.

Using the same method as for Account 231, Station Apparatus, the average original cost plus the applicable other costs, less the estimated applicable depreciation reserve, would represent the net book value of the embedded CPE sold, for Account 234, Large Private Branch Exchange, the retirement unit cost, less the estimated applicable depreciation reserve, would represent the net book value of the embedded CPE sold. The sale proceeds received from the purchases of the embedded CPE would be reflected in the depreciation reserve as salvage.

Section 31.01-3(1) of the Uniform System of Accounts defines cost of removal as ". . . the cost of recovery . . . salvage. [*11] . ." Section 31.01-3(a) defines salvage value as ". . . the amount received for property retired, if sold. . ." Accordingly, all salaries, wages, and expenses, other than taxes, incurred in connection with the sale of embedded CPE should be considered as cost of removal chargeable to the depreciation reserve, because the sales function performed results in "salvage" being received.

Other non-tax expenses incurred in connection with the sale of the embedded CPE should be charged to the depreciation reserve as cost incurred in obtaining salvage. Examples of these expenses included general and commercial advertising; postage; printed matter; printing; rentals and leases of general data processing equipment, guard service; electrical power; house service; administrative services; engineering costs; centralized data preparation; centralized data processing operations; centralized design; development and maintenance; and applicable plant labor.

Additionally, overhead costs representing social security taxes, relief and pensions costs; operating rents, general expenses, and general services and license costs should be apportioned to the sale effort and charged to the depreciation reserve. [*12]

Taxes, including Federal income taxes on sales should be charged to the appropriate accounts for operating taxes.

Shop repair charges representing the cost of repairing embedded CPE prior to its sale is properly charged to Account 605. For items sold from stock, the costs for any assembling, labeling and boxing should be charged to Account 171 because these costs represent costs incurred in obtaining salvage.

Accounts to be Used for Detariffing Customer Premise Equipment

The accounts to be used to take CPE and Enhanced Services out of regulation are as follows:

I. Assets:

A #103 Miscellaneous Physical Property

This account is for CPE which is on lease or for enhanced services. Appropriate subaccounts should be established to facilitate auditing and identification of transactions.

B #124 Merchandise and Material Held for Sale

This account is for detariffed CPE which is not in the customers hands.

II. Amortization and Depreciation Reserves:

#174 Other Deferred Credits

Appendix L (Continued)

This account is for depreciation and amortization reserves as they relate to Accounts #103 and #124 above.

III. Unamortized Investment Tax Credit and Deferred Taxes:

#176 [*13] Accumulated Deferred Income Taxes

This account is for unamortized investment tax credit and deferred taxes as they relate to CPE and Enhanced Services.

IV. Depreciation, Maintenance, and Other Expenses

A #315 Income from Miscellaneous Physical Property

This account is for all expenses, including loadings, associated with depreciation, repair, and maintenance of enhanced services.

B #316 Miscellaneous Income

This account is for all expenses including loadings, associated with depreciation, repair, maintenance on the sale or lease of CPE.

V. Taxes

A #326 Federal Income Taxes - Nonoperating

This account is for Federal Income Tax as it applies to CPE or enhanced services.

B #327 Other Non-operating Taxes

This account is for taxes other than Federal Income Taxes.

APPENDIX M

Simplified Rate Filing Conditions and Procedures

a. If the company is an average schedule company, a Simplified Rate Filing seeking increased revenues may only be filed if its total company return on common equity capital does not exceed its cost of common equity capital based upon applicable marketplace standards not limited to a Discounted Cash Flow (DCF) analysis, as calculated employing the procedure set forth in Schedule A. (Which is attached to the company's approved petition.)

b. If the company is a cost-based company, a Simplified Rate Filing seeking increased revenues may only be filed if its jurisdictional return on common equity capital does not exceed its cost of common equity capital based upon applicable marketplace standards not limited to a DCF analysis, as calculated employing the procedure set forth in Schedule B. (Which is attached to the company's approved petition.)

c. Noncompetitive rates are only subject to an excess earnings complaint or other challenge if the company's jurisdictional earnings as calculated using the applicable procedure set forth in Schedule A or B result in a return on jurisdictional common equity capital in excess of its cost of common equity capital as calculated above. Upon a successful complaint or other challenge, rates may change prospectively only.

d. The company may, in lieu of seeking increased revenues under the Simplified Rate Filing procedure, file revenue neutral rate changes to its noncompetitive rates for restructuring/rebalancing purposes.

e. The company shall provide 20 days advance notice of a Simplified Rate Filing to the Commission, which generally describes the proposed rate changes, and conform to PUC-approved notice requirements.

f. The rates proposed in any Simplified Rate Filing shall be filed to be effective on 45 days notice. Any and all interventions or complaints shall be due within 10 days of such filing with no formal answer in response thereto required. A Simplified Rate Filing seeking increased revenues shall include either Schedule A or B adjusted to reflect the annualized impact of the rate changes together with all applicable workpapers and an Executive Overview setting forth a full explanation of the rate changes. A revenue neutral Simplified Rate Filing shall include schedules detailing the annualized revenue impact of the rate changes together with all applicable workpapers and an Executive Overview setting forth a full explanation of the rate changes.

g. Data requests/interrogatories (including subparts) addressing the Simplified Rate Filing, which will be limited to 50 per party, must be served on the company within 25 days of the filing with responses due within 12 business days of receipt.[1]

h. The proposed rate changes shall become effective on the 45th day if no qualifying complaints[2] are filed or no investigation is instituted by the Commission.

i. Should a qualifying complaint be filed or investigation instituted with respect to a Simplified Rate Filing seeking additional revenues in excess of 5 percent of the company's total annual revenues from noncompetitive services, the following procedure will apply, to the extent possible, beginning with the date of the filing:

Appendix M (Continued)

(i) an Alternative Dispute Resolution (ADR) session will be held on the 45th day and (ii) if a settlement petition is not filed within 30 days of the commencement of ADR, a prehearing conference before an administrative law judge will be conducted as quickly as possible thereafter, the company's direct testimony will be due on or before the 90th day, complainant/intervenor testimony due on or before the 100th day, rebuttal testimony will be due on or before the 110 day, evidentiary hearings held on or before the 115th and 116th days, summary comments limited to 20 pages of argument will be due on or before the 130th day, reply comments limited to 15 pages of argument will be due on or before the 140th day, and the recommended decision will be issued on or before the 160th day. (This procedure may be changed upon stipulation of the parties.) The Commission's final opinion and order must be entered within seven months of the date of the filing.

j. With respect to a revenue neutral Simplified Rate Filing or a Simplified Rate Filing proposing an annual increase in revenues from noncompetitive services of 5 percent or less subject to a qualifying complaint or investigation, the ADR process as previously described shall be pursued. If a settlement petition is not filed within 30 days of the commencement of ADR, comments of the respective parties limited to 20 pages of argument shall be filed within 45 days of the commencement of ADR and reply comments limited to 15 pages of argument within 55 days. A Commission order must be entered within 125 days of the date of the filing.

k. Reductions in residential and small business rates may be initiated by the company at any time outside of the SRP with appropriate supporting calculations. Tariff filings involving a limited number of services with the intent of packaging/restructuring the services may be made. The prices of the packaging/restructuring will not exceed in total the individual service prices of the services comprising those packages. Reductions in residential and small business rates and limited services tariff filings shall become effective on one day's notice to the Commission.

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[1]Objections to discovery requests will be due within five days of receipt

[2]A qualifying complaint includes a complaint filed by any party with appropriate standing or any complaint satisfying Section 3006(f), 66 Pa.C.S. §3006(f).

Source: PUC-Approved Small Company Group – Plan B Chapter 30 Petition.

APPENDIX N

Universal Service

Both TA-96 and Chapter 30 reference universal telecommunications service as a goal. Universal telecommunications services are an evolving level of telecommunications services which reflect, in general, those services necessary to function in modern society.[1] Separate and distinct universal service programs have been established under the provisions of TA-96 and through the PUC's Global Order and Chapter 30 alternative regulation petitions and plans.

Federal Universal Service Program

The Communications Act of 1934 stated that all people in the United States should have access to "rapid, efficient, nationwide . . . communications service with adequate facilities at reasonable charges."[2] Since 1985, under general authority, the FCC has administered two programs designed to increase subscribership by reducing charges to low-income consumers: lifeline and link-up.

TA-96 established the following universal service principles:

(1) *Quality and rates* – Quality services should be available at just, reasonable, and affordable rates.

(2) *Access to advanced services*[3] – Access to advanced telecommunications and information services should be provided in all regions of the Nation.

(3) *Access in rural and high cost areas* – Consumers in all regions of the Nation, including low-income consumers and those in rural, insular, and high cost areas, should have access to telecommunications and information services, including interexchange services and advanced telecommunications and information services, that are reasonably comparable to those services provided in urban areas and that are available at rates that are reasonably comparable to rates charged for similar services in urban areas.

(4) *Equitable and nondiscriminatory contributions* – all providers of telecommunications services should make an equitable and nondiscriminatory contribution to the preservation and advancement of universal service.

(5) *Specific and predictable support mechanisms* – There should be specific predictable and sufficient Federal and State mechanisms to preserve and advance universal service.

(6) *Access to advanced telecommunications services for schools, health care and libraries* – Elementary and secondary schools and classrooms, health care providers, and libraries should have access to advanced telecommunications services.[4]

Due to the evolving nature of those services considered necessary to be included as a universal service, the Act directed the Federal State Joint Board to establish the definition of services to be supported by Federal universal service support mechanisms. In defining these services, the Board is required to consider which telecommunications services:

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[1] 52 Pa. Code §63.162; 47 U.S.C. §254(c)(1).
[2] 47 U.S.C. §151.
[3] Defined by the FCC to describe services and facilities with an upstream (customer-to-provider) and downstream (provider-to-customer) transmission speed of more than 200 kbps. In addition, the FCC had used the term "high speed" to describe services with over 200 kbps capability in at least one direction.
[4] 47 U.S.C. §254(b).

(A) are essential to education, public health, or public safety;
(B) have, through the operation of market choices by customers, been subscribed to by a substantial majority of residential customers;
(C) are being deployed in public telecommunications networks by telecommunications carriers; and
(D) are consistent with the public interest, convenience, and necessity.[5]

Upon recommendation of the Joint Board, the FCC determined that the Lifeline program must include the following services:

1. single party service;
2. voice grade access to the public switched telephone network;
3. DTMF[6] or its functional digital equivalent;
4. access to emergency services;
5. access to operator services;
6. access to interexchange service;
7. access to directory assistance; and
8. toll limitation services.

Universal service support is provided through four mechanisms:

- high cost;
- low income;
- rural health care; and
- schools and libraries.

High Cost Support Mechanism

TA-96 articulated a national goal that consumers in all regions of the nation, including rural, insular and high cost areas, should have access to telecommunications services at rates that are reasonably comparable to rated charged for similar services in urban areas. Eligible service providers receive support to offset the costs of providing services in these areas thereby reducing the charges to the consumer.

Pennsylvania telecommunications companies self-certify that the company meets the requirements for these funds and that the funds will be used in the manner authorized by TA-96. Exhibit 1 in Finding B identifies Pennsylvania companies that receive high cost support from the Federal Universal Service Fund.

Low Income Support Mechanism

The Low Income Support Mechanism is a telecommunications discount program comprised of three components:

1. **Lifeline** support reimburses local service providers for providing discounted telephone service to eligible low income consumers. Lifeline support enables low income consumers to save at least $5.25 per month and up to $8.50 per month on their local telephone bills.

[5] 47 U.S.C. §254(c)(1).
[6] "Dual Tone Multifrequency" facilitates the transportation of signaling through the network, shortening call set-up time.

In addition, enhanced Lifeline support enables low income consumers living on tribal reservations to save up to $33.50 per month on their local telephone bills. Consumers living either on or off reservations may also qualify for an additional $3.50 per month in matching support from their state, tribe, or carrier. Lifeline customers living on reservations must pay at least $1.00 per month for local telephone service.

2. **Link Up** support reimburses local service providers for providing discounted connection charges to eligible low income consumers. Customers qualifying for Link Up support are eligible to save up to 50 percent on installation fees, not to exceed $30.

In addition, enhanced Link Up support enables low income consumers living on tribal reservations to save up to $100 on any connection charges the service provider customarily assesses to connect subscribers to the network. Eligible connection charges include facilities-based charges associated with line extensions or the construction of facilities needed to initiate service. Discounts do not apply, however, to charges for facilities or equipment that fall on the customer side of the demarcation point.

3. **Toll Limitation Service** support compensates local service providers for the costs incurred in establishing toll limitation service for low income subscribers. Toll limitation includes toll blocking, which prevents the placement of any long-distance calls, and toll control, which limits the amount of long-distance calls to a pre-set amount selected by the consumer. Service providers are required to offer toll limitation service at no cost to low income subscribers.

Qualifications for participation in the Low Income Support Mechanism vary by state. In states that do not provide additional state support, a consumer must participate in one of the following programs in order to qualify for support: Medicaid, food stamp programs, Supplemental Security Income, federal public housing assistance, or the Low Income Home Energy Assistance Program. Consumers living on reservations may participate in one of the following additional programs in order to qualify for support: Bureau of Indian Affairs general assistance, Temporary Assistance for Needy Families, Head Start (if income-eligible), or the National School Lunch Program. In a state that does not mandate state lifeline support, the customer may "self-certify" participation in one of these programs under penalty of perjury.[7]

Rural Health Care Support Mechanism

The rural health care support mechanism was created to ensure that rural health care providers pay no more than their urban counterparts for telecommunications services necessary for providing health care. In order to receive support, a health care provider must be located in a rural area and be a public or not-for-profit community health center, local health department or agency, rural health care clinic, community mental health center, not-for-profit hospital, or a post-secondary educational institution offering health care instruction.

The funds from this mechanism support monthly charges for all telecommunications services, installation charges, and toll charges paid to connect to the internet. Most commonly supported are T 1 lines or frame relay technology necessary to connect the health care provider to the Internet or to a group of health care providers interconnected to form a telehealth network.

[7] 47 C.F.R. §54.409.

Schools and Libraries Support Mechanism

The Schools and Libraries Support Mechanism, known as the "E-rate," was established to make advanced telecommunications affordable for the nation's K-12 schools and libraries. It provides discounts on the cost of eligible telecommunications services, Internet access, and internal connections ranging from 20 percent to 90 percent. The highest discounts go to schools and libraries serving the most disadvantaged populations.

Funding

TA-96 requires every telecommunications carrier that provides interstate telecommunications services to contribute on an equitable and nondiscriminatory basis, to the funding of universal service. The Commission may exempt a carrier or class of carriers if their contribution would be de minimus.

For purposes of the fund, telecommunications carriers include long distance companies, local telephone companies, wireless telephone companies, paging companies, and pay phone providers. Companies contribute to the fund based upon a percentage of the amount the company billed in the previous year to their residential and business customers for interstate and international telecommunications services. The exact percentage is adjusted every quarter based on projected universal service demands. The Universal Service Administrative Company administers the Universal Service Fund under FCC regulations.

The FCC does not require telecommunications companies to recover their Universal Service contribution form their customers. Companies that do choose to recover their contributions do so in different ways, however they may not shift more than an equitable share of the contribution to any customer or group of customers. Some companies contributing to universal service have added specific charges to their customers' bills to reflect these payments.[8]

Telecommunications companies are eligible to receive funds from the federal USF if at their request or on the motion of the state commission, the state commission designates them eligible. More than one carrier in an area may be designated eligible for participation in the fund. Telecommunications companies designated as eligible shall offer the services supported by the USF (either using its own facilities or a combination of its own facilities and resale of another carrier's services) and advertise the availability of such services. The FCC, for interstate services, and the state commission, for intrastate services, are authorized to designate an eligible carrier for unserved areas.

Pennsylvania Lifeline and Universal Service Programs

The PUC's order on Bell's petition seeking approval of an alternative form of regulation, directed Bell to submit a revenue neutral lifeline program and a universal telephone assistance program (UTAP) for approval. Subsequently, a PUC order[9] directed that each LEC must file a lifeline plan to become effective January 1, 1998. As a result of those orders, Pennsylvania currently has a lifeline 150 program which reflects the federal program, a Link-Up America Program which reflects the federal program and then for Bell customers a lifeline program and a UTAP program. There is no automatic enrollment for lifeline services.

[8]Customers' bills may include a line item for "universal service," for example.
[9]Docket No. I-00940035; order entered July 31, 1997.

Appendix N (Continued)

Lifeline 150

As part of the global order, the PUC determined that lifeline service would be available to all eligible customers with incomes of up to 150 percent of the poverty level guidelines and that these customers may choose one optional vertical service. This requirement was applicable to all LECs operating in the Commonwealth including CLECs operating as pure resellers whose plans must be consistent with that being offered by the ILEC whose services are being resold. This program reflects compliance with the FCC's universal service order which required all eligible telecommunications carriers to provide lifeline service to qualified low income customers regardless of whether states provide matching funds.

LEC lifeline programs provide eligible lifeline customers with the federal universal service support total offset, currently $7.75, and allows for the purchase of one optional vertical service at applicable rates. Eligible lifeline customers are those whose income level is at or below 150 percent of the federal poverty level and are enrolled in Medicaid, Food Stamps, SSI, Federal Public Housing Assistance, or low-income home energy assistance program (LIHEAP). Lifeline customers are authorized to purchase one vertical service at applicable rates. In addition, the PUC has authorized lifeline customers to choose to receive voice mail and if another optional vertical service is required to make the voice mail service work, they may choose that additional option.

To facilitate participation in the program, the PA Department of Public Welfare entered into agreements (see Appendix O) with the participating telecommunications companies to verify consumers' eligibility for the program. The following exhibit lists those Pennsylvania companies that use DPW's verification system.

PA Telecommunication Companies Using DPW's Confirmation System

ALLTEL Pennsylvania	Mahanoy & Mahantango
Bell Atlantic-Pennsylvania	Marianna & Scenery Hill
Bentleyville	Metro
Breezewood	North Penn
Buffalo Valley	North Pittsburgh
Citizens	Owsayo River
Commonwealth	Palmerton
Conestoga	PECO
Denver and Ephrata	Pennsylvania
Deposit	Pymatuning Independent
GTE North	Sugar Valley
Hancock	United/Sprint
Hickory	Venus
Ironton	Yukon-Waltz
Lackawaxen	

Source: Department of Public Welfare.

Bell Atlantic-Pennsylvania Lifeline

As part of its petition with the PUC seeking approval of an alternative form of regulation, Bell was required to propose a lifeline service program. This program was grandfathered in the global order and, therefore, currently Bell offers both the Lifeline 150 Program and its own lifeline program.

Bell's lifeline program provides eligible lifeline customers whose income level is at or below 100 percent of the federal poverty level with an $11.50 billing credit, but provides for a total restriction on optional vertical services. Therefore, Bell's eligible lifeline service customers within the 100 percent threshold may chose from the existing lifeline program or the Lifeline 150 Program. The total benefit is higher under the original lifeline program; however, it does not provide for optional vertical services.

Link-Up

Link-Up helps make telephone service more affordable for low income customers who apply for new telephone service or who transfer telephone service. The program provides qualified customers with a 50 percent discount up to $30 on line connection charges for one residential telephone line. The program targets customers who have incomes at or below 150 percent of the federal poverty guidelines who receive Supplemental Social Security Income or who participate in certain Pennsylvania Department of Public Welfare's programs. Customers who are eligible for either Lifeline 150 or Lifeline qualify for Link-Up.

Universal Telephone Assistance Program (UTAP)

As part of its petition seeking approval of an alternative form of regulation, Bell was required to submit to the Commission a lifeline program (discussed above) as well as a UTAP proposal. UTAP offers financial assistance to help existing lifeline customers and qualified lifeline applicants (with a pre-existing basic service arrearage) to restore their basic telephone service. Bell is the only company in Pennsylvania to offer this specific program. In the first year of UTAP, Bell made a contribution of $1.2 million. Subsequent annual contributions of $1 million will be made to the UTAP administrator.

APPENDIX O

Voice Response System Access Cooperative Agreement*

VOICE RESPONSE SYSTEM
ACCESS COOPERATIVE AGREEMENT

This Cooperative Agreement is made between the Commonwealth of Pennsylvania, Department of Public Welfare (Department) and **COMPANY NAME** solely in its capacity as operator and manager of **COMPANY NAME**.

WHEREAS, the Department is the single state agency in the Commonwealth of Pennsylvania responsible for the furnishing of Public Assistance benefits; and

WHEREAS, **COMPANY NAME** is engaged in the production, transmission, distribution and sale of local telephone services; and

WHEREAS, **COMPANY NAME** is regulated by the Public Utility Commission, and low-income payment-troubled customers of **COMPANY NAME** are eligible for consideration for special payment arrangements; and

WHEREAS, Department clients (Recipients) who are customers of **COMPANY NAME** would benefit from special payment arrangements for their local telephone service; and

WHEREAS, **COMPANY NAME** has requested that the Department verify the participation by **COMPANY NAME** customers in various Department benefits programs when those customers voluntarily choose to identify themselves as such participants, as confirmation will enable **COMPANY NAME** to make eligibility determinations for special payment arrangements for the mutual benefit of Department Recipients and **COMPANY NAME**; and

WHEREAS, the Department desires to provide this service on behalf of its Recipients, and is able to do so in the regular course of its business with de minimus impact.

NOW, THEREFORE, **COMPANY NAME** and the Department intending to be legally bound, agree as follows:

1. The Department will verify the status of **COMPANY NAME** customers' participation in a Department assistance program as set forth in the paragraphs below.

2. The Department will provide **COMPANY NAME** with touch-tone telephone access to its Voice Response System (System) between the hours of 8:30 a.m. and 5:00 p.m. on normal Commonwealth work days for all assistance programs, except during periods when the Department must temporarily discontinue access to allow priority service of Department needs or other interruptions beyond the control of the Department.

Appendix O (Continued)

3. The Department will assign and maintain a security access code for authorized persons designated by **COMPANY NAME** to access the Department's system; and **COMPANY NAME** will provide the Department with an authorized telephone user code and any update on a timely basis.

4. An authorized representative of **COMPANY NAME** will use the Department's System to confirm by telephone the status of a Recipient's assistance program case number, which number shall have been voluntarily provided to Metro Teleconnect Companies, Inc by the Recipient who is also a **COMPANY NAME** customer applying for special payment arrangements. The only information that will be provided through the System will be as follows: (1) whether the case number entered into the System is valid and whether that case number is active or inactive at the time of inquiry or Lifeline certified; and (2) whether the individual has received a LIHEAP grant anytime during the current or immediately preceding LIHEAP program year. No other information will be provided by the Department.

5. **COMPANY NAME** is responsible for training its employees on the procedures for touch-tone access to the System.

6. **COMPANY NAME** agrees to take all necessary and appropriate steps to ensure that no unauthorized use or disclosure of either passwords or Recipient information occurs as a result of acts or negligence by it or its employees, officers, directors, agents, contractors or subcontractors, and that all persons who will have access to this information are advised and trained as to its confidentiality and the safeguard thereof. **COMPANY NAME** agrees that all passwords and Recipient information are to be used only for purposes directly connected with administration of their income eligibility verification process for special payment arrangements available to **COMPANY NAME** customers. This obligation to hold such information confidential will survive the expiration or termination of this Agreement.

7. Any unauthorized use or disclosure of passwords or Recipient information, including, but not limited to, such acts or negligence as set forth in paragraph 6., above, will be the basis for immediate termination, without advance notice, of the Department's participation under this Agreement, either totally or on a modified basis, as the Department deems appropriate, if such modification is in the best interest of the Commonwealth. Any modification hereof must be agreed to in writing by the parties hereto.

8. All determinations that a Department client is eligible for special payment arrangements are the sole province and responsibility of **COMPANY NAME.**

9. The Department's participation is solely as a provider of service to its clients and the Commonwealth as a whole and the Department is in no respect a partner, contractor, or agent of **COMPANY NAME.**

Appendix O (Continued)

10. **COMPANY NAME** agrees to indemnify and hold harmless the Department, the Commonwealth of Pennsylvania and their employees, officials and agents, for any loss, damages, judgements, costs or other liability arising out of the release of the information by the Department and use of the Department's System pursuant to this Agreement, or the unauthorized acts or sole negligence of **COMPANY NAME** employees, agents, officers, directors, contractors or subcontractors in the use of the information.

11. The limited activities of the Department as set forth above will commence on a date which will be determined by the Department upon the execution of this Agreement by both parties hereto, and will continue until such time as either party shall terminate this Agreement. The Department will advise **COMPANY NAME** in writing of the implementation date of this Agreement. This Agreement may be terminated by either party without cause upon receipt by either party of thirty (30) days prior notice in writing.

12. This Agreement may also be cancelled by the Department at any time without notice for non-performance, unacceptable performance or breach of any of the above-stated provisions.

13. This Agreement contains all the terms and conditions agreed on by the parties. Any modifications or waivers of this Agreement shall only be valid when they have been reduced to writing, duly signed by authorized representatives of the parties hereto, and attached to the original of this agreement. No other agreements, oral or otherwise, regarding the subject matter of this Agreement shall be deemed to exist or to bind any of the parties hereto.

14. Each party to this Agreement shall timely provide to the other the name, title, address, facsimile and telephone numbers of a designated contact person, and any changes thereto, for receipt of communications for the purpose of implementing and fulfilling the provisions to this Agreement. Any notices required under this Agreement shall be in writing and delivered by certified mail.

With a copy to:

COMPANY NAME
Company address

Appendix O (Continued)

Department:

Department of Public Welfare
Sherri Z. Heller
Deputy Secretary for
Income Maintenance
P.O. Box 2675
Harrisburg, PA 17105-2675
Phone: (717) 783-3063
Fax: (717 787-6765

This Agreement contains the entire understanding of the parties and may not be modified or altered in any way except by written amendment executed by both parties.

This Agreement supersedes and cancels all agreements and understandings between the parties concerning the subject matter hereof.

IN WITNESS WHEREOF, and intending to be legally bound hereby, the parties hereto have caused this Agreement to be executed by their duly authorized officials and officers as of the 29th day of November, 2000.

Metro Teleconnect Companies, Inc

BY:_____

PENNSYLVANIA DEPARTMENT OF PUBLIC WELFARE

BY:_____
SHERRI Z. HELLER
DEPUTY SECRETARY
OFFICE OF INCOME MAINTENANCE

*This agreement is also used for public utilities participating in the Low Income Home Energy Assistance Program (LIHEAP).

Source: Department of Public Welfare.

APPENDIX P

PUC Audit and Follow-Up Findings
National Exchange Carrier Association, Inc.
Pennsylvania Universal Service Fund

Findings, Conclusions, and Recommendations:

- ***Finding and Conclusion No. 1*** – The accounting for and reporting of accounts receivable and revenue transactions are inaccurate.

  Update: NECA instituted a procedure to ensure that all PA USF revenue and accounts receivable transactions are recorded.

  Follow-up Recommendation: None

- ***Finding and Conclusion No. 2*** – The Universal Service Fund's financial statements for the period ended July 31, 2001, did not initially reflect the proper accounts receivable and prepaid revenue balances.

  Update: NECA's PA USF financial statements for the 12-months ended December 31, 2001, appear to reflect the correct balances for accounts receivable, assessments to contributors received in advance, and amounts assessed to contributors.

  Follow-Up Recommendation: None

- ***Finding and Conclusion No. 3*** –Late payment charges are not always calculated in accordance with the authorized procedure.

  Update: Late payment charges are calculated in accordance with the Commission-approved methodology.

  Follow-Up Recommendation: None

- ***Finding and Conclusion No. 4*** – Controls over input of lock box receipt data into the MSAccess database system need to be improved to ensure proper calculation of late payment charges.

  Update: Lockbox data input errors continue to occur.

  Follow-up Recommendation: Establish supervisory review controls that ensure complete and accurate data input.

Appendix P (Continued)

- ***Finding and Conclusion No. 5*** – The monthly status report provided to the Commission by NECA is incomplete.
  Update: The monthly status report to the Commission should be further expanded.

  Follow-Up Recommendation: Revise the monthly status report to include a schedule of contributors whose monthly contribution has been increased or decreased along with the annual impact to the fund.

- ***Finding and Conclusion No. 6*** – NECA's cash forecasting procedures for the USF are insufficient.

  Update: Specific responsibility for cash management and forecasting has been assigned to a newly-hired Cash Forecasting Manager.

  Follow-Up Recommendation: Complete and implement the new forecasting model as soon as practical.

- ***Finding and Conclusion No. 7*** – The Non-complaint/Delinquent Payers Report provided to the PUC to monitor fund activity is misleading.

  Update: The delinquent payer's report (now called the Delinquent Contributors Report) includes an aging of outstanding balances greater than 30 days for all delinquent contributors. However, a report that provides details of late payment charges actually assessed and recorded in NECA's books of account has not been established.

  Follow-Up Recommendation: Establish a new report or modify the Delinquent Contributors report to include the amount of late payment charges billed each delinquent contributor applicable to the reported outstanding balances.

- ***Finding and Conclusion No. 8*** – Monthly Statements of Account sent to the carriers can be misleading.

  Update: NECA's monthly carrier account statements continue to be misleading and confusing.

  Follow-Up Recommendation: Expedite implementation of the new software system. In the interim, establish procedures that require a more diligent review of monthly carrier account statements prior to mailing.

Sources: Pennsylvania Universal Service Fund Administered by the National Exchange Carrier Association, Inc. – A Report on the Financial Statements for the Period April 1, 2000 Through July 31, 2001 – Prepared for the Pennsylvania Public Utility Commission by the Bureau of Audits Management Audits Division, Issued November 2001 and the Follow-Up Review of NECA's Progress in Implementing Recommendations, issued April 2002.

APPENDIX Q

Pennsylvania Public Utility Commission's Response to This Report

COMMONWEALTH OF PENNSYLVANIA
PENNSYLVANIA PUBLIC UTILITY COMMISSION
HARRISBURG, PENNSYLVANIA

TERRANCE J. FITZPATRICK
CHAIRMAN

June 27, 2003

BY HAND DELIVERY

Mr. Philip R. Durgin
Executive Director
Legislative Budget & Finance Committee
Rm. 400, Finance Building
Harrisburg, PA 17120

Re: LB&FC Audit Report of Pennsylvania Public Utility Commission's Implementation of Chapter 30 (June 25, 2003)

Dear Mr. Durgin:

Thank you for the opportunity to review your draft Report entitled *Pennsylvania Public Utility Commission's Implementation of Chapter 30*. A significant volume of materials associated with the Commission's implementation of Act 67 of 1993 (Chapter 30) has been collected and analyzed by your staff. We offer our perspective in a few key substantive areas as follows (page references are to the draft Report):

1. Relationship Between Chapter 30 and TA-96 – pp. S-3 – S-4, 10 - 11

The Report notes certain differences between Chapter 30 and the subsequently enacted federal Telecommunications Act of 1996 (TA-96). Nevertheless, our experience has been that the laws are complementary in some respects. For example, both Chapter 30 and TA-96 seek to promote and encourage the provisions of competitive services by a variety of service providers for the benefit of all consumers. While the difficulties and uncertainties created by appeals of regulatory initiatives, both here and in the federal arena, have greatly complicated the process of achieving the stated legislative goals, the complementary nature of the laws has facilitated the implementation of both laws in Pennsylvania for the benefit of the public.

It should be noted that there is no conclusive legal determination by the FCC or the federal courts which prohibits the states from imposing universal service requirements exceeding those of the FCC. The competitive provisions, primarily Section 251 of TA-96, must be read in tandem with retained state authority, specifically Section 253(b), and the provisions of Section 254 governing universal service.

2. The PUC's Biennial NMP Update Reporting Guidelines – pp. S-9, 54-57

The Commission's reporting guidelines for biennial updates of network modernization plans (NMPs) assist the Commission in ensuring that the reporting company is meeting its network deployment obligations and commitments. The guidelines were also designed to assist the Commission in determining the impact of Chapter 30 in the marketplace over time. For the most part the guidelines come directly from the provisions of Chapter 30.[1]

The guidelines were meant as just that, a guide to assist the companies in what is expected to be included in their biennial reports. In order to complete the biennial NMP reports, companies must augment their responses to the guidelines with factual details which, in fact, provide insights regarding the types of technology deployed and the percent of company access lines over which broadband is currently available.

To further assist in that effort, the Commission is developing more detailed reporting requirements, including spreadsheet templates, to assure the consistency and relevancy of data received. The detailed data is used to verify compliance with Chapter 30 plan commitments, including the deployment of broadband availability consistent with the statute's required minimum standard of 1.544 mbps. The guidelines do not gather data related to the availability of access lines capable of being provisioned with more than one type of broadband service since the statute is technology-neutral and imposes no requirement for multiple broadband choices.

3. Definition of "Broadband" – p. 47

The Report recites the statutory definition of "broadband" and states that Chapter 30 does not require a speed of 1.544 Mbps in more than one direction. However, the definition does not expressly address whether the minimum speed must be provided bidirectionally. Therefore, this is a question of interpretation.

[1] For example: digital switches, fiber optic trunk lines, intelligent network signaling and ISDN availability; projected deployment schedules; broadband availability adjacent to rights-of-way abutting health care facilities, public schools, and industrial parks; deployment in rural, suburban and urban areas; joint ventures; *etc.*, are expressly referenced in Sections 3001 and 3003.

4. Operational Definitions of Broadband Availability – pp. S-8 – S-9, 80-83

The Commission has reserved to the companies a large measure of discretion in how to modernize their networks within the parameters of Chapter 30. Thus, we measure each company against its Chapter 30 commitments to ensure the company has met its Chapter 30 commitments, at a minimum.

There are many forms of technology currently being used to provide broadband. Regardless of the broadband technology used, its application would provide broadband availability to an end-user's (*i.e.*, consumer's) access line. Therefore, a comparison of the number of access lines having broadband available (regardless of the technology used) to the total number of access lines served by a company provides the percentage of access lines with broadband available for the company. This formula was used to determine a company's compliance with its Chapter 30 NMP commitments.

If, as the Report observes, Bell (n/k/a Verizon Pennsylvania, Inc.) is "undercounting" broadband availability for its business customers, the situation is not problematic. Commission staff has noticed that an undercounting has occurred in a very few distribution areas within Bell's service territory, but that it did not appear to affect the overall calculation of broadband availability for business customers, or for Bell as a whole, to any significant degree. This apparent statistical anomaly does not appear to misrepresent the constant upward trend in broadband availability that Bell has reported under its biennial NMP update reports.

5. Deployment of Broadband - pp. S-7, 63-89

The report's conclusions about companies accelerating deployment of broadband technologies as a result of Chapter 30 are incomplete in some respects. The report states in a footnote on page 64 that its purpose is not to suggest that Chapter 30 alone is the cause of accelerated deployment, but it also states that it is not possible to know whether companies would have made the additional financial investments required for accelerated deployment of broadband network technologies without Chapter 30. It is explained that Chapter 30 moved regulation away from rate base/rate of return methodologies to alternative forms of regulation in order to prohibit implicit subsidies for broadband technologies built into basic service rates. As explicitly stated in the report, however, the alternative form of regulation was not a "quid pro quo" regulation. Rather, it provided price cap regulation in conjunction with companies' commitments to modernize their networks and assurances that consumers' monthly bills for basic local service would not increase to cover the cost of such modernization. The reasoning employed here falls short of providing the direct link between Chapter 30 and its impact on companies accelerating deployment of broadband technologies.

The report does not examine certain other factors that may have contributed to companies accelerating deployment of broadband technologies. Instead, the approach used in the report assumes that pre-Chapter 30 business plans and market conditions remained static. The report does not examine Pennsylvania under the broader national context by comparing Pennsylvania deployment rates to that of other states, particularly those states that do not have network modernization commitments. By examining broadband deployment in Pennsylvania under this context, it may become more apparent as to whether other factors, such as population densities, demand, competition from companies that are not regulated, namely cable companies, had much to do with accelerated deployment in the urban and suburban areas of Pennsylvania. In these areas of the state, population densities and demand for higher speeds tend to be greater than in rural areas, thus making the return on investment greater for companies deploying broadband networks. If these factors had been examined, it may have been more clear whether Chapter 30 alone caused advanced deployment of broadband services throughout the Commonwealth.

6. The Definition of "Rural" – pp. S-9, 66, 84-85

There is no uniform definition of "rural" in approved Chapter 30 plans because the Commission accepted the uncontested definition presented by each company. Commission-approved NMPs for all companies except Verizon, classify the entire service territory as rural. Balanced deployment for those non-Verizon companies is then measured by determining the level of deployment in the exchange(s) in their relevant service territory. The approved Chapter 30 plans for Verizon Pennsylvania Inc. and Verizon North Inc. classify exchanges as "urban," "suburban," or "rural." In our biennial review of their NMPs, we look first to the balancing of deployment across each of the classifications and then to the balance among the various exchanges in each class.

7. Different Formulas and Productivity Offsets – pp. S-10, 108

The determination of the productivity offset is case-specific and reflects the Commission's determination of the efficiencies achievable by the utility seeking approval of a Chapter 30 plan. A determination is based on record evidence with multiple factors being considered, *i.e.*, the cost of capital, capital structure, economic risk, future earnings analysis, historic rates of inflation, existing rates, *etc.* As such, the productivity offsets will be company-specific and not necessarily uniform.

8. Duration of Alternative Regulation – pp. S-18 – S-19, 113-115.

The effect of the sunset of Chapter 30 on Commission-approved Chapter 30 plans has been informally discussed among stakeholders and in legal circles. We agree with the Report's conclusion that alternative regulation could continue if Chapter 30 expires on December 31, 2003. In fact, many approved Chapter 30 plans expressly address this contingency. The fate of any particular company's plan, however, could become a contested matter before the Commission.

9. Pennsylvania's Intrastate Universal Service Fund – pp. S-13 – S-14, 137 - 139

It is correct that the projected life of the state Universal Service Fund (USF) established by the PUC's *Global Order* was from April 2000 through December 2003. It should be noted, however, that the USF's expiration is subject to the provisions of an ongoing Commission access charge reform investigation at Docket No. M-00021596. Moreover, the contingency that the USF would continue after December 2003 has been provided for in the Commission's regulations at 52 Pa.Code §§ 63.161-171 (relating to universal service), which do not have a sunset provision. If the Commission extends the duration of the USF, we anticipate that we would do so by an order entered on or before December 31, 2003. We also note that the FCC permits state assessments on wireless carriers for universal service purposes regardless of whether that state regulates wireless carriers.

Thank you again for the opportunity to review and comment on the draft Report. Regardless of the outcome of legislative action prior to the December 31, 2003 scheduled sunset of Chapter 30, the Commission will continue to be responsible for the regulation of the telecommunications industry throughout the Commonwealth.

Sincerely yours,

Terrance J. Fitzpatrick

Terrance J. Fitzpatrick
Chairman

cc: Vice Chairman Bloom
Commissioner Wilson
Commissioner Thomas
Commissioner Pizzingrilli
Executive Director Smith