

**NETWORK MODERNIZATION PLAN  
of  
NORTH PENN TELEPHONE COMPANY**

This Network Modernization Plan (“NMP”) as originally filed sets forth **North Penn Telephone Company’s** (“North Penn” or “Company”) commitment to accelerate the modernization of its network to achieve universal broadband availability within its service territory by December 31, 2015. ~~This NMP describes the Company’s current<sup>1</sup> and projected deployment of central office digital switches, fiber optic trunk capability between central offices and intelligent network signaling (“INS”) capability and integrated services digital network (“ISDN”) availability in its central offices. Absent extraordinary circumstances,<sup>2</sup> the Company will continue to meet or exceed the following commitments:~~ The original NMP was filed pursuant to Act 67 of 1993, Section 3003 of the Public Utility Code, 66 Pa.C.S. §3003, and Pennsylvania Public Utility Commission (“Commission”) Opinions and Orders entered January 20, 2000, March 30, 2000, and December 20, 2000, at Docket Nos. P-00981425, et al. Act 67 was subject to sunset by operation of law on December 31, 2003. Act 183 of 2004 was signed into law on November 30, 2004, replacing Act 67. Act 183, Section 3014(b)(1)(ii) grants the Company the option to amend its original NMP as follows:

(ii) The rural telecommunications carrier shall commit to accelerate 100% broadband availability by December 31, 2008.

Further, Act 183, Section 3014(n)(1) provides:

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<sup>1</sup>As of July 31, 1998.

<sup>2</sup>Should extraordinary circumstances arise, the Company shall notify the Commission and Chapter 30 parties at Docket No. P-00981436 of such circumstances prior to filing a petition with the Commission seeking permission to alter the Chapter 30 Network Modernization Plan commitments set forth herein.

(n) Construction.--Nothing in this section shall be construed:

(1) As giving the Commission the authority to require a local exchange telecommunications company to provide specific services or to deploy a specific technology to retail customers seeking broadband or advanced services.

Consistent with these statutory provisions, the Company hereby elects to commit to accelerate 100% broadband availability by December 31, 2008,<sup>1</sup> and amends its NMP accordingly herein. Consistent with Section 3014(b)(1)(ii), the Company shall not be required to offer either a Bona Fide Retail Request Program or a Business Attraction or Retention Program or otherwise participate in such programs. The Company may subsequently petition the Commission for approval of further modification of this amended network modernization plan, which the Commission may grant upon good cause shown.

**~~A. Deployment of Digital Switches in North Penn's Central Offices~~**

~~North Penn's central office switches are fully digital. North Penn utilizes a digital switching system employing Siemens/DCO (Generic Release 19) and Siemens/EWSD (Generic Release 15). INS has been implemented within the Company's service territory. Consequently, North Penn has met the Chapter 30 policy objective of LEC deployment of digital telecommunications switching technologies in its central offices.~~

~~The Company's central office switching system does not currently support broadband transmissions at 1.544 mbps. As such broadband technology becomes~~

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<sup>1</sup>As used throughout this amended Plan, the term "broadband" shall mean a communication channel using any technology and having a bandwidth equal to or greater than 1.544 megabits per second (mbps) in the downstream direction and equal to or greater than 128 kilobits per second (kbps) in the upstream direction. The term "broadband availability" as used in this amended Plan shall mean access to broadband service by a retail telephone customer of the Company within ten (10) business days of request.

~~commercially available to local exchange telecommunications companies in the future and as customer demand within its service territory warrants, the Company will either upgrade or replace its switches and software so that it will have broadband-enabled central office switching. The Company's intention is to have all of its central office switches capable of supporting broadband transmission by the year 2015. Central office switches will be converted to broadband services at an earlier date if demand arises within the service area for this transmission level.~~

~~**B. Fiber Optic Trunk Capability Between Central Offices**~~

~~—— Sixty-three percent of North Penn's trunks between central offices are fiber optic. It is the Company's intention to convert all remaining trunks to fiber (without diversity) by the end of the year 1999 and to fiber (with diversity) by the end of the year 2001.~~

~~**C. INS, SS-7 and ISDN**~~

~~**1. INS and SS-7 Enabllization**~~

~~—— Intelligent Network Switching ("INS") is a step in the progression of the network toward broadband availability. INS is dependent upon Signaling System 7 ("SS-7"), which is an addressing protocol that speeds up call processing. SS-7 establishes an independent data link between central offices by operating out-of-band. SS-7 capability allows telephone companies to provide a variety of sophisticated call management and call processing services generally marketed under the trade name of CLASS<sup>sm</sup> features (Customer Local Area Signaling Services).~~

~~As previously stated, North Penn currently uses a central office switching system which allows intelligent network switching and all of the Company's access lines are served by SS-7 technology. Although the Company currently offers its subscribers no CLASS<sup>sm</sup> features, it is the Company's intention to make the following CLASS<sup>sm</sup> features available within its service territory in the near term, as demand arises: Repeat Dial, Call Return, Call Trace, Priority Ringing, Preferred Call Forwarding, Call Screening, Special Call Acceptance, Caller ID, Deluxe Caller ID.~~

## ~~2. AIN Signaling~~

~~The evolution of intelligent switching has resulted in more sophisticated services such as Advanced Intelligent Network ("AIN") signaling. AIN architecture allows telephone companies to implement many new software-defined call routing and database services such as CallGate<sup>sm</sup>, sub-account billing, area-wide Centrex<sup>sm</sup>, and "follow-me" services such as time-of-day routing.~~

~~Currently, the Company offers no AIN signaling services in its service territory and, given the lack of business development within the territory, it is doubtful that any near term demand for AIN services will develop. North Penn will offer AIN services to the public if such demand develops. However, this will require either a substantial upgrade or a replacement of its existing central office digital switching system.~~

## ~~3. ISDN~~

~~Integrated Services Digital Network ("ISDN") is a switched digital communications standard that has been under development for a number of years. It allows subscribers to have access to two 64 kilobits per second digital voice/data~~

~~channels and a 16 kilobits per second signaling channel. These signals are capable of being carried on copper distribution facilities that are less than 18,000 feet in length and require connection to a digital switching system with appropriate hardware and software.~~

~~It is the Company's intention to make ISDN or a technological equivalent available<sup>2</sup> to individual subscribers throughout its network by the end of the year 2003.~~

**D. A. Broadband Services Availability**

North Penn commits to the deployment of those technologies necessary to achieve universal broadband availability ~~to customers in its service territory, (i.e.,~~ provision of broadband capability to any retail telephone customer in the Company's service territory requesting such capability on ten (10) business days notice) by December 31, 2015<sup>08</sup> as set forth in Act 183, Chapter 30.

~~Implementation of broadband capability within the Company's distribution network will be the last step in deploying broadband facilities. Upgrade of distribution facilities will immediately precede or be coincident with the achievement of broadband service availability. Specifically, North Penn's outside plant will require enhancement of existing loop length design parameters in order to meet the goal of universal broadband availability within the service territory.~~

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<sup>2</sup>Due to the work which may be needed to condition an individual customer's distribution facility for ISDN service and to deploy any necessary electronics, the Company may need up to 60 days to process some subscribers' orders for ISDN service. As broadband facilities are more widely deployed in the Company's distribution network, there will be fewer situations requiring 60 days to fill an ISDN order.

The Company cannot anticipate what technologies will be developed in the future. Therefore, consistent with Section 3004(n)(1), the this amended NMP does not commit the Company to use any specific technology in order to provide universal broadband availability. ~~As new technologies are developed, North Penn may modify its implementation plan. Such modifications would not, however, impact upon the Company's general commitment to universal broadband availability.~~ The Company's first priority is to satisfy customer demand as it arises.

The following schedule sets forth the Company's broadband network goals, measured in percentage of all access lines:

Broadband availability	06/30/1998	12/31/2003	12/31/2008	<del>12/31/2013</del>	12/31/2015
<del>Within 60 days of receipt of service request from any customer</del>	83%	83%	89%	95%	100%
Within 5 <u>10 business</u> days of receipt of service request from any customer	52%	83%	86% <u>100%</u>	90%	100%

~~Between now and the date for making broadband avail to any customer within five (5) business days of receipt of the customer's request, the Company is making available to all subscribers Digital Subscriber Loop (xDSL) technology as an interim step.~~

For purposes of initial broadband availability, Chapter 30 targets the following types of subscribers: public schools, medical and health care facilities and industrial parks. ~~Of those targeted facilities, North Penn has no medical or health care facilities and no industrial parks in its service area and only three (3) public schools.~~

~~By the year 2003, North Penn intends to provide broadband to those schools on 5-days notice.~~

Pursuant to Act 183, 66 Pa.C.S. §3014(b)(4), the Company is capable of deploying on ten (10) business days notice universal broadband in or adjacent to public rights-of-way abutting all public schools, including administration offices, health care facilities, and industrial parks in its service territory.

~~**E. Other Steps Toward Network Modernization**~~

~~It is the Company's intention to implement some or all of the following additional network transmission and facility enhancements if warranted by customer demand and if economically feasible: High speed (1 meg+) Internet access and ATM Internet interface availability, ISDN network deployment, xDSL technologies, Next Generation Digital Line Carrier, and Frame Relay.~~

~~**F. IntraLATA and InterLATA Equal Access**~~

~~InterLATA Equal Access is a service option offered by local exchange telephone companies that allows customers to choose an interexchange toll carrier to which all their interLATA (and international) toll calls are automatically routed without their having to dial an access code.~~

~~IntraLATA Equal Access is a similar service offering where customers can choose the intraLATA toll carrier to which all their intraLATA toll calls will be automatically routed without their having to dial an access code.~~

~~The Company offers both intraLATA and interLATA equal access within all of its exchanges.~~

~~**G. One-Party Service**~~

~~\_\_\_\_\_ All of North Penn's subscribers have one-party service.~~

**H.B. Biennial NMP Updates Reports to the Commission**

1. The Company will provide biennial NMP reports, as described below and in the time frames required, to the Commission with written NMP implementation reports in compliance with 66 Pa.C.S. Section 3003(b)(6) and the applicable reporting requirements established by the Commission pursuant to Opinion and Order entered May 17, 1999, at Docket No. M-00930441. for the periods ending December 31, 2006 and December 31, 2008.

2. Such biennial report shall be submitted in the form and detail required by the Commission as of July 1, 2004, unless such reporting requirements are subsequently reduced by the Commission. The Commission may require the submission of further information to support the accuracy of or to seek an explanation of the biennial NMP reports filed by the Company.

3. Under no circumstances shall the Commission compel the public release of maps or other information describing the actual location of the Company's facilities.

**C. Failure to Provide Universal Broadband Availability by December 31, 2008**

1. Utilizing the biennial NMP reports filed with the Commission by the Company under Part B.1 and 2 of this amended Network Modernization Plan, the Commission shall monitor and enforce the Company's compliance with the interim and final 100% commitments for broadband availability set forth in this amended Plan. In the event that the Company is found by the Commission, after notice and evidentiary hearings held on an expedited basis, to have failed to meet such an



interim or final 100% commitment, then the Commission shall require the Company to refund to customers in its next price stability filing, should it have elected to shift to Plan A - Price Stability Mechanism Plan, an amount that is just and reasonable under the circumstances. Such amount shall not exceed an amount determined by multiplying the percentage shortfall of the broadband availability commitment on an access line basis required to be met during the period from the start of the amended Plan or from the date of the last prior interim commitment, as applicable, times the increased revenue that was obtained during this period as a result of eliminating the 2% inflation offset in Plan A plus interest calculated under 66 Pa.C.S. §1308(d) (relating to voluntary changes in rates). Any such refund shall be separate from and in addition to any civil or other penalties that the Commission may impose on a local exchange telecommunications company under Chapter 33 of the Public Utility Code (66 Pa.C.S. §3301 et seq.).

**D. Assistance to Political Subdivisions**

1. The Company shall make technical assistance available to political subdivisions located in its service territory that are pursuing the deployment of additional telecommunications infrastructure or services by the Company.

**E. Construction**

1. The Company may not be required to provide specific services or to deploy a specific technology to retail customers seeking broadband or advanced services.

2. The Company shall be permitted to participate, should it choose to do so, in joint ventures with other entities in meeting its broadband deployment commitments under this NMP.

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