

STATE OF NEW HAMPSHIRE
BEFORE THE
PUBLIC UTILITIES COMMISSION
DT 07-011

**Joint Petition by Verizon New England, Inc., et al.
and FairPoint Communications, Inc.
Transfer of New Hampshire Assets of
Verizon New England, Inc. et al.**

**Direct Testimony of Michael L. Harrington
On Behalf of
FairPoint Communications, Inc.**

March 23, 2007

1 **Q. Please state your name, title, and business address.**

2 **A.** My name is Michael L. Harrington. I am the Vice President, Network
3 Engineering Services for FairPoint Communications, Inc. My business address is
4 30 East Main Street, Westfield, New York, 14787.

5

6 **Q. On whose behalf are you testifying?**

7 **A.** I am testifying on behalf of FairPoint Communications, Inc., one of the Joint
8 Petitioners in this proceeding.

9

10 **Q. Please describe your educational and professional background.**

11 **A.** I was appointed to my present position in May 1998, with overall responsibility
12 for long range plant planning, engineering, supplier and equipment vendor
13 technical due diligence and contract negotiations, technical-regulatory
14 assessments and associated regulatory interactions, and capital budget programs.

15

16 Prior to my current appointment, I was Vice President – Operations with
17 Chautauqua & Erie Telephone Corporation (C&E) from September 1993 until
18 FairPoint acquired the company in August 1997. My duties included overall
19 responsibility for long range plant planning, engineering, and telephone plant
20 operations. Prior to joining C&E, from 1985 to 1993, I was Staff Manager:
21 Financial/Long Range Planning for ALLTEL/Northeast Region. While with
22 ALLTEL, I held several positions on Region staff and in network planning. Prior
23 to joining ALLTEL, I had begun my telecommunications career at C&E in 1973,

1 holding plant, engineering and managerial positions with the Company through
2 1985.

3

4 I have a Bachelors Degree in Management from Pennsylvania State University-
5 Behrend College and an Associates Degree in Electrical Engineering from
6 Jamestown Community College. I have attended numerous technical, separations
7 and tariff training sessions provided by vendors, consultants and
8 telecommunications associations and have received strategic planning training at
9 the Duke Fuqua School of Business. I have been a speaker at vendor and national
10 telecommunications sponsored forums and have served on industry committees.

11

12 **Q. What is the purpose of your testimony?**

13 **A.** The purpose of my testimony is to describe FairPoint's plans for investing in the
14 communications network it will acquire from Verizon in New Hampshire. I will
15 also discuss FairPoint's plans for increasing overall broadband penetration by
16 investing in the current network.

17

18 **Q. What is FairPoint's overall goal, from a network perspective, in owning and
19 operating the Verizon properties in New Hampshire?**

20 **A.** Overall, FairPoint plans to engineer and invest in a network capable of providing
21 leading-edge, state-of-the-art telecommunications products and services in
22 response to customer needs. FairPoint recognizes that a vibrant, statewide public

1 switched telephone network is at the core of New Hampshire's communications
2 infrastructure. FairPoint is prepared to undertake the task of keeping this
3 infrastructure up-to-date and capable of providing the entire suite of
4 communications applications – both existing and evolving – to large business
5 customers as well as residential and small business customers, on both a retail and
6 a wholesale basis.

7
8 FairPoint plans to invest heavily in broadband infrastructure for the purpose of
9 substantially increasing broadband availability following the closing. We also
10 intend to enhance the outside plant construction and maintenance function to
11 address many of the issues that are being discussed in the Commission's Pole
12 Investigation Docket, DM 05-182. Our intent is to provide quality service for the
13 people of the State of New Hampshire and new services in the future as driven by
14 the market.

15
16 In terms of investing in the communications network, one of FairPoint's top
17 priorities will be to deploy broadband network infrastructure and provide
18 broadband-enabled services to customers who do not have high-speed access and
19 broadband-enabled services available today. Our strategy is - in our current LEC
20 areas - and will be - in the areas that we will be serving following completion of
21 the merger - to build out broadband capable infrastructure that meets customer
22 needs and service demands. After the needs are identified, we can then make the

1 decision as to the technology best suited to meet those needs. This technology
2 decision is necessarily based on a number of factors, including service demand,
3 customer density, quantities, cost, and revenue opportunities. I will discuss this
4 process further below.

5

6 **Q. What review have you undertaken of the existing Verizon network in New**
7 **Hampshire?**

8 **A.** In the proposed transaction, I have been responsible for reviewing all aspects of
9 the network assets to be transferred with the transaction, including relevant central
10 office, outside plant, and general support assets. FairPoint also engaged an
11 outside engineering firm to assist in our physical review of the network assets,
12 especially the outside plant.

13

14 **Q. What was the purpose of your review?**

15 **A.** The principal purpose was to obtain a comprehensive understanding of the
16 Verizon network assets in place and to be acquired by FairPoint. FairPoint
17 needed to determine the present state of these assets, their capabilities, the
18 technology employed and the investment going forward that might reasonably be
19 required to meet the evolving communications needs of the marketplace.

20

21 **Q. How did you conduct your review?**

1 **A.** We reviewed extensive documentation relating to Verizon’s network in New
2 Hampshire, including maps, switch data, switch/network elements, detail on
3 subscriber carrier equipment and loop systems, trouble indices, capital
4 expenditure history, data regarding working and installed trunks, and information
5 about Verizon’s E911 network, to name just a few. We also scheduled several
6 trips with the purpose of physically inspecting, on a sample basis, Verizon’s
7 outside plant, central office equipment, and buildings.

8
9 Based on our review and inspections, we were able to assess the network
10 infrastructure and other physical assets included in this transaction. These
11 conclusions allow FairPoint to make informed and reasonable assumptions, for
12 preliminary planning purposes, about future operations and capital expenditures.
13 We did not, however, inspect every central office, each mile of cable, or each
14 building, vehicle, or computer being transferred, due to the sheer size of the
15 transaction and the impossibility of completing such a task in a reasonable time
16 frame. We believe that, based on our review, FairPoint will receive the network
17 assets necessary to provide the same services Verizon provides today on the day
18 this transaction closes.

19

20 **Q.** **Please provide an overview of the network assets being transferred with the**
21 **merger.**

1 **A.** Overall, Verizon operates a generally robust and efficient network in New
2 Hampshire, which includes 13 standalone central office switches, two access
3 tandems, 13 host switches, and approximately 96 remote switches. In all, these
4 switches have the capacity to serve around 1,100,000 lines, and currently serve
5 approximately 624,000 lines.

6
7 The interoffice network being transferred in New Hampshire as a result of this
8 merger is significant, and includes 193 fiber routes, 31 copper routes, and 1
9 microwave route. These routes contain nearly 1,600 trunk groups, serving all
10 segments of the communications industry with interconnection services.

11
12 Verizon's current outside plant in New Hampshire consists of over 28,000 route
13 miles of cable. Of this amount, 23,000 miles consists of copper cable and 3,500
14 miles is fiber optic cable, and nearly 1,000 miles is related to fiber-to-the-
15 premises.

16
17 In summary, FairPoint will acquire a well-functioning and robust
18 telecommunications network in New Hampshire that is capable of meeting New
19 Hampshire customers' basic communications needs.

20
21 **Q.** **Please discuss FairPoint's ability to own and operate a telecommunications**
22 **network of the size and magnitude of the network Verizon operates today.**

1 **A.** From an engineering and network operations/planning standpoint, FairPoint has
2 spent the past 15 years acquiring, integrating, and improving the networks of
3 telephone companies. Our typical transaction does not always include a
4 telecommunications network that is ready and able to provide the quality, state-of-
5 the-art services to which FairPoint customers are accustomed. Thus, our first
6 task, from a network perspective, usually is to determine how much investment
7 will be needed to ensure the acquired network assets function properly and
8 provide quality service. Of course, a significant portion of the effort in this area
9 for recent transactions has been to make sure the acquired network can provide
10 broadband services.

11
12 While FairPoint is familiar with the types of network assets (switches, circuit
13 equipment, cable, etc.) deployed by Verizon in New Hampshire, the scale
14 obviously is significantly greater than prior FairPoint acquisitions. Transferring
15 FairPoint's experience to-date in acquiring, improving, operating, and
16 maintaining telecommunications networks to those assets being acquired in
17 Maine, New Hampshire, and Vermont is a matter of scale and scope, not network
18 technology. The increase in scale and scope, in turn, will require more people
19 and more automation to maintain and operate the network efficiently.

20
21 **Q.** **Please discuss FairPoint's plans for future investment in the network**
22 **infrastructure in New Hampshire.**

1 **A.** Our main objective in planning for network investment for the Verizon lines is to
2 1) ensure that we provide high quality service, 2) significantly increase broadband
3 availability, and 3) provide for future service demand. I will cover each of these
4 items separately below.

5

6 **Q.** **How will FairPoint ensure that the network in New Hampshire provides high**
7 **quality services?**

8 **A.** Based on our due diligence inquiry, which included examination of available
9 records and physical inspection of selected assets in New Hampshire, we were
10 able to determine the estimated amount of investment needed to maintain the
11 current network. We based our maintenance capital expenditure amounts partly
12 on Verizon’s historical experience and also on FairPoint’s historical experience.
13 We also reviewed several key performance indices for the network to better
14 inform our assessment of the current state of the network. This is the same
15 procedure, albeit on a larger scale, that FairPoint followed in all of its prior
16 telephone acquisitions: we endeavor to determine what the steady-state capital
17 requirements are for the network and confirm that the network – at the estimated
18 level of funding – is fully capable of meeting marketplace needs. In total, we
19 expect ongoing maintenance capital expenditures to be in line with historical
20 amounts spent by Verizon, but with increases above the historical average where
21 circumstances require, such as any service quality improvement opportunities that
22 can be attributed to the telecommunications network.

1

2 **Q. Please discuss FairPoint's plans for increasing broadband and other new and**
3 **enhanced service availability in New Hampshire.**

4 **A.** In general, Verizon has already made significant investment in the technologies
5 capable of providing enhanced services in New Hampshire. The existing
6 transport infrastructure, which includes a substantial number of SONET
7 (synchronous optical network) rings, interoffice fiber, and a number of fiber-fed
8 digital loop carrier systems, will provide FairPoint with a base upon which the
9 network can be efficiently augmented for provision of new and enhanced services
10 to the entire northern New England customer base.

11 **Q. FairPoint has stated that it intends to significantly increase broadband**
12 **availability in northern New England. Please discuss how FairPoint intends**
13 **to accomplish this task.**

14 **A.** For initial planning and budgeting purposes, we plan to augment and expand
15 Verizon's existing broadband network with digital subscriber line (DSL)
16 technology. We did this for a number of reasons: 1) DSL is the most efficient
17 technology for most of the areas in which broadband availability is lowest; 2)
18 DSL utilizes the current network, allowing build-out to a wider footprint than
19 would be economically feasible through removing and replacing or overbuilding
20 existing infrastructure; 3) DSL is a reliable delivery method that will allow
21 FairPoint to deploy broadband-capable infrastructure to its new customers within
22 a reasonable timeframe after regulatory approvals are received and the transaction

1 closes. The use of DSL is consistent with our practice of building out our
2 broadband technology in a way that positions our network for future advances in
3 technology that will allow for the provision of more and better services to our
4 customers.

5

6 **Q. What is the current broadband availability situation in New Hampshire for**
7 **the Verizon properties?**

8 **A.** The latest data I have reviewed shows that Verizon has 63% of its lines in New
9 Hampshire qualified to provide DSL. This metric tells us how many of Verizon's
10 New Hampshire customers can have DSL service ready within a short time after
11 requesting the service. In contrast, 92% of FairPoint's lines in Maine, New
12 Hampshire and Vermont are qualified to provide DSL.

13

14 **Q. Why has FairPoint chosen to utilize DSL technology instead of another**
15 **technology, such as fiber-to-the-premises?**

16 **A.** At FairPoint, we will use the technology that best fits the circumstances in each
17 area or situation. We analyze each situation separately and design necessary
18 network investment according to the most reasonable business case. Some of the
19 factors we take into account are: regulatory requirements, market demands,
20 customer density and cost recovery opportunities and constraints. Once we make
21 an assessment of these factors, we can begin designing alternative scenarios for
22 the investment, perform a comparative cost analysis, and make a decision on how

1 to proceed. We do not approach each broadband expansion scenario assuming
2 DSL will be utilized.

3
4 Verizon has been building out its fiber optic service, branded as “FiOS” in
5 metropolitan areas. Verizon currently offers FiOS only in part of southern New
6 Hampshire. FairPoint will take over and operate the fiber-to-the-premises
7 (“FTTP”) network, but not the branded FiOS service itself. We will provide
8 similar services, but not under the “FiOS” name.

9
10 FTTP technology can be expensive, particularly in low density service areas. The
11 current economics do not support the use of FTTP technology to all of the rural
12 areas of New Hampshire that currently lack broadband access. If the economics
13 did support deployment, we would, of course, look at it.

14
15 DSL makes the best use of the network in place today. Verizon is continuing to
16 deploy DSL in its own build-out plans. Using DSL is often the most efficient
17 option in cases where the outside plant (i.e., copper) is in good shape, which is the
18 case in New Hampshire according to my review of the available documentation
19 and physical plant. With New Hampshire’s population densities, the economics
20 simply do not support replacement of copper that is in good shape with fiber optic
21 cable.

22

1 I point out that the above discussion relates to mass market applications.
2 Customers, including large business customers, with special bandwidth needs will
3 continue to be able to order high capacity fiber optic services at additional cost.
4

5 **Q. Will FairPoint utilize DSL technology in all circumstances as it starts**
6 **investing in its newly acquired infrastructure?**

7 **A.** No. FairPoint will use the decision making process that I have described above.
8 It is unlikely that DSL technology will be the best choice in all circumstances.
9 First, a driving factor behind the choice of technology will be the types of
10 applications that need to be supported over the network. Second, in some cases,
11 such as “Greenfield” applications (for example, building out to new housing
12 developments or business complexes), fiber to the curb or premises will certainly
13 be considered, and may make more sense. FairPoint has, in its current operations,
14 utilized copper, fiber, and wireless network technologies to meet its customers’
15 broadband service needs where appropriate.
16

17 **Q. It has been suggested by some that DSL is obsolete technology. Do you**
18 **agree?**

19 **A.** Absolutely not. Advances are being made constantly in technologies that
20 continue to use embedded copper networks to deliver broadband services to
21 customers. Once again, I would like to stress that the decision on which
22 technology to use is not made in a vacuum and is substantially dependent on the

1 applications that are needed and the economics. In many cases, DSL will make
2 the most sense and will allow for future expansion into more bandwidth-intensive
3 applications.

4

5 **Q. What are FairPoint's goals for increasing broadband availability in New**
6 **Hampshire?**

7 **A.** Our immediate goal is to increase broadband availability substantially as soon as
8 possible in each of the three states. In order to accomplish this task, part of
9 FairPoint's due diligence was to identify the areas in which broadband can be
10 reasonably and economically deployed on a timely basis. FairPoint, of course,
11 will not be able to immediately deploy broadband-capable infrastructure to all
12 areas. Therefore, as in the case of most network investment plans of this
13 magnitude, we have to make decisions, based on the relevant business case
14 scenarios, on where to deploy such infrastructure first. We are currently in the
15 process of determining where we will augment the broadband network first, but in
16 typical deployment schedules we build out to areas where we can reach the
17 highest number of customers the most quickly.

18

19 **Q. How do FairPoint's plans relate to plans Verizon may already have**
20 **regarding broadband in New Hampshire?**

21 **A.** FairPoint plans on accelerating the timeline for making a broadband-capable
22 network and broadband-enabled services available to Verizon's New Hampshire

1 customers, as we currently understand Verizon's plans. Our current capital
2 expenditure strategy includes an amount to initially ramp-up, to begin promptly
3 following the closing. After this initial push, FairPoint will continue with making
4 available a broadband-capable network as well as making broadband-enabled
5 services available to as many New Hampshire customers as possible, as soon as
6 reasonably possible.

7

8 **Q. Verizon currently offers its "FiOS" service in parts of southern New
9 Hampshire. Please discuss FairPoint's plans in regards to this service.**

10 **A.** As I mentioned above, FairPoint will take over the FTTP network over which
11 Verizon currently provides FiOS services in part of southern New Hampshire.
12 We plan to continue utilizing the FTTP network as Verizon is today, which in
13 essence means providing the same services under the same terms and conditions.

14

15 As for expanding the current FTTP footprint, no firm plans have been made as of
16 today. As I explain above, FairPoint's approach to technology selection demands
17 a case-by-case analysis of each situation before making any decisions. Much will
18 depend on the applications being demanded by customers, and the corresponding
19 financial results of the FTTP business case, before we can say with any certainty
20 whether we will expand FTTP availability in New Hampshire.

21

22 **Q. Are you aware of service quality issues Verizon has had in New Hampshire?**

1 **A.** I am generally aware of issues that have been raised by some regarding Verizon's
2 service quality in New Hampshire, to the extent those issues relate to network
3 infrastructure. However, as the Commission is aware, there remains considerable
4 debate and discourse regarding the service quality standards, if and how Verizon
5 has met these standards, and what standards should be adopted by the
6 Commission going forward.

7
8 FairPoint is committed, in all jurisdictions in which it operates, to providing high
9 quality service to its customers. We are willing to work with the Commission and
10 other interested parties to identify any problem areas in the network that
11 contribute to quality of service issues and to ensure that those problems are
12 addressed. To the extent the Commission has concerns about the current level of
13 service in New Hampshire, we are prepared to meet with the Commission Staff,
14 the Consumer Advocate, and others to attempt to address those concerns.

15

16 **Q.** **Please summarize your direct testimony.**

17 **A.** FairPoint will take over Verizon's entire LEC operation in the state of New
18 Hampshire upon the date of closing. The telecommunications network will be
19 ready to maintain existing services and service quality as of the closing.
20 Customers, both retail and wholesale, business and residential, urban and rural,
21 will encounter very little change in service, if any at all.

22

1 FairPoint's first priority, after ensuring customers continue receiving quality
2 service after cutover, is to augment and expand a broadband-capable network and
3 to increase broadband-enabled service availability significantly. We will
4 accomplish this task by using the technology that best suits each situation, the
5 determining factors of which include applications and services to be delivered to
6 the customers, the cost new of construction, the condition of existing plant, and
7 customer density.

8

9 At the same time as we are investing in broadband-capable infrastructure, we will
10 also be investing in the current network to meet our service quality goals. We
11 will also review and enhance outside plant construction and maintenance practices
12 to address concerns being raised in DM 05-172.

13

14 **Q. Does that conclude your direct testimony?**

15 **A.** Yes it does.