

**STATE OF NEW YORK
PUBLIC SERVICE COMMISSION**

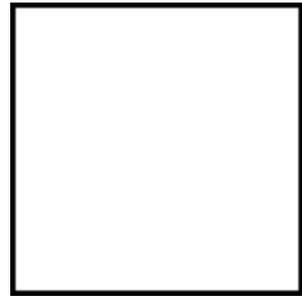
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Proceeding on Motion of the Commission to)	
Consider the Adequacy of Verizon)	Case 16-C-0122
New York Inc.'s Retail Service Quality)	
Processes and Programs)	
)	
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Testimony of Robert Master

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Counsel for CWA

March 24, 2017



1 **What is your name and business address?**

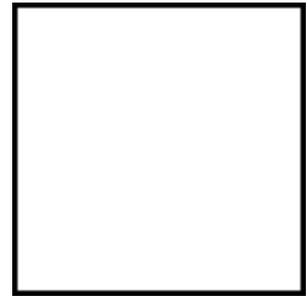
2 Robert Master, Communications Workers of America, District 1,
3 80 Pine Street, 37th Floor
4 New York, NY 10005

5 **What is your occupation and job title?**

6 Assistant to the Vice President for CWA District One

7 **What are your responsibilities?**

8 As assigned by the Vice President, I coordinate CWA’s work on contract bargaining
9 campaigns and legislative, regulatory and political activities. In that capacity I work closely
10 with our members to translate their concerns about working conditions into the arena of
11 public policy, including by advocating for legislation and regulations to ensure that
12 customers receive the highest quality telecommunications services from Verizon. As a
13 matter of policy and strategy, the union seeks to align itself with the interests of the
14 customers who rely on Verizon’s services. On a daily basis, I interact with rank and file
15 workers who work for Verizon and, from my own observations and conversations with
16 countless members over 30 years, I have deep knowledge of and information about Verizon,
17 its policies and practices, working conditions, the state of the copper and the fiber systems,
18 and the level and quality of service provided to customers. For at least the past two
19 decades—and with much greater frequency and concern since the PSC eliminated service
20 quality penalties in 2005—I have heard repeatedly from members about the ways in which
21 the company has virtually abandoned upkeep of the legacy system, and let it age and

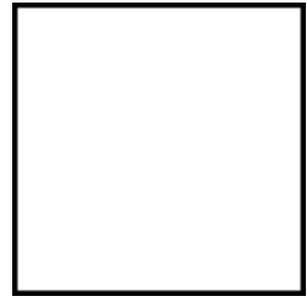


1 deteriorate. I have heard a litany of complaints from every part of
2 the state about the ways in which members are prevented by
3 management from undertaking the kind of thorough repair and maintenance of the aging
4 network that is necessary to ensure that customers receive consistently high quality service.
5 And I can assure this Commission that this is an enormous source of frustration for our
6 members, as is vividly reflected in the testimony submitted by several of our recently retired
7 members.

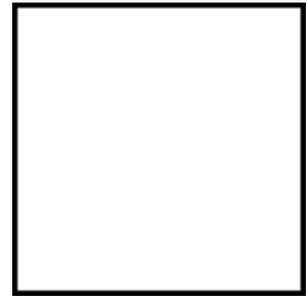
8 **Are you familiar with this proceeding?**

9 Yes. CWA has long been concerned about the consequences of deregulation and the
10 Commission's retreat from its historic oversight of the regulated system. As members made
11 it clear to us that maintenance of the copper system was aging and badly deteriorating, we
12 decided to act. At the initiative of the union's leadership, CWA began a review of the
13 regulatory oversight of Verizon by the PSC, in order to determine if the problems brought to
14 my attention could be rectified by the Public Service Commission. That led to the filing of
15 the July 1, 2014 Petition which in part gave rise to this proceeding and is cited in the Order
16 creating it.

17 Working with advocacy groups and elected officials we focused on the consequences of
18 disinvestment by Verizon in the copper system, misstatements about financial realities,
19 failure to roll out broadband services in many areas of the state, and other fundamental
20 dysfunctions. I have followed the commission's growing interest in this situation, and the
21 development of the Order, and the events that have followed, very closely.



1 CWA represents roughly 14,500 New York State employees of
2 Verizon, a decline of about 25,000 since the late 1980s. Our
3 primary obligation is to protect and advance their interests. But in this situation the interests
4 of the consumers and the interests of our members directly coincide. To the extent that
5 Verizon is required by regulators to maintain a modern, high-functioning
6 telecommunications system in good repair, CWA members will be employed to execute that
7 mission. Millions of New Yorkers rely on the copper system, in many places with no
8 alternative source of affordable service. That system remains a regulated enterprise subject
9 to the protections afforded them by law and the Commission. They need the protection of
10 Commission vigilance and effective regulation to reverse the policies and practices which
11 have left the copper system in a state of extreme disrepair, with far too many customers
12 subject to needlessly protracted service outages, long delays in new service installation, and
13 frequent instances of substandard service. And they need a work force that is sufficient to
14 meet the system's installation, maintenance and repair needs. We stand for both goals. The
15 system is collapsing because of Verizon's deliberate underinvestment in the financial and
16 human capital needed to ensure the network's high quality functioning. I have repeatedly
17 been told by members that the physical plant is not being properly replaced, upgraded,
18 maintained or repaired, that repairs are jerry-rigged with inappropriate materials, and that
19 elements of the plant remain in service well beyond their useful lives. The system will
20 continue to deteriorate at the present levels of replacement and maintenance investment.
21 That has to be reversed. Only new policies which require the incumbent to bring the system



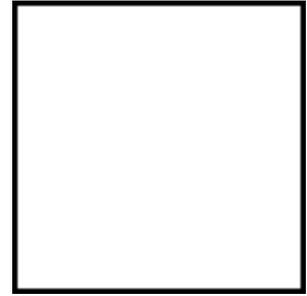
1 to a state of good repair will restore quality of service to
2 individuals and the state economy. Those new policies will also
3 be in the interest of the members of CWA. The right outcome for consumers is the right
4 outcome for our members.

5 I have also been active in the effort to ensure that broadband is available in all communities
6 across the state. In New York City Verizon has to date failed to meet its broadband buildout
7 obligations under the cable franchise it was granted in 2008. In many other places in the
8 state—notably virtually all of the major upstate cities and rural areas, and the Town of
9 Brookhaven in Suffolk County—Verizon has apparently decided not to deploy FiOS,
10 contradicting the Commission’s faith that unfettered telecommunications competition would
11 ensure that every customer would enjoy a choice of the most advanced technologies at
12 competitive prices. In many cases the regions which have been bypassed by FiOS are the
13 same areas suffering from the worst copper service. Part of this proceeding should address
14 the need for full rollout of broadband.

15

16 **What do you know about the state of Verizon's physical plant in New York and what is**
17 **the source of that knowledge?**

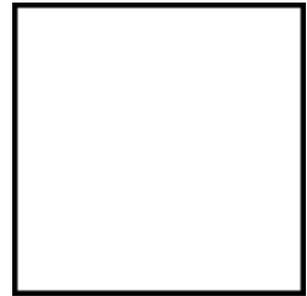
18 As I said earlier the source of my knowledge of the system are my own observations and
19 numerous detailed and specific discussions with expert technicians over more than two
20 decades. The network is aging, breaking down and will get dramatically worse unless
21 Verizon is required to reinvest in equipment and personnel. When I joined CWA in 1986



1 the copper system was relatively well maintained, equipment was
2 replaced when it aged or faltered, there were sufficient employees
3 to perform required maintenance, and the company's management and practices were
4 working. Regulators diligently oversaw the system. In fact, in order to maintain a
5 functioning physical plant and ensure high quality service, as a condition of the merger
6 between NYNEX and Bell Atlantic in 1995, this Commission required Verizon to hire 2500
7 additional workers who would replace, upgrade and maintain the network. But especially
8 after this Commission abandoned service quality penalties as a mechanism for compelling
9 high quality service, and as the company turned its focus to both Wireless and fiber to the
10 home services, Verizon apparently decided to disinvest in its legacy copper system. This
11 was not oversight or negligence; it was the stated policy of the company. CEO McAdam's
12 assertion in 2012 that Verizon intended to "kill the copper" and "cut the copper" simply
13 made explicit the policies our members had been experiencing every day on the job for
14 many years. These policies, if not reversed will destroy the copper system, as we have
15 begun to see.

16 **What do you know about the quality of service provided to Verizon customers and the**
17 **systems used to report on and monitor service quality?**

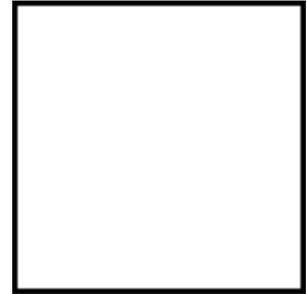
18 My conversations with members over two decades have been supplemented by my
19 awareness of the diminished and failed service quality programs implemented by the
20 Commission. Since the PSC embraced a more deregulated system that relied on the force
21 of competition to ensure service quality over twenty years ago, the Commission has



1 backtracked on the way it measures service quality and eliminated
2 penalties for failure to meet standards. The misguided decision to
3 measure service quality for only “core customers” was a dramatic turning point that
4 effectively sanctioned Verizon’s pursuit of policies of disinvestment. The first but minimum
5 step needed is for the commission to restore reporting requirements to all its customers, not
6 the small fraction covered by the “core” categorization.

7 **Do you know anything about transducers?**

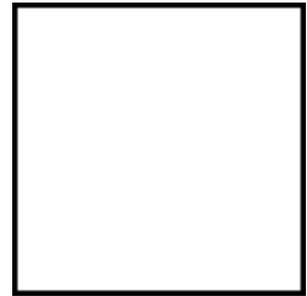
8 Yes. Transducers measure whether there is adequate air pressure within copper cables to
9 ensure the cables will not be damaged by corrosive water infiltration. The transducers and
10 other elements of the air pressure system, such as manifolds which supply the air pressure,
11 and dehydrators in Central Offices, are in a state of collapse. As recently as 2000, dedicated
12 groups of technicians, known as “pro-act”, or “pressure gangs,” proactively monitored the
13 level of pressure within cables, going from Central Office to Central Office, and even
14 manhole to manhole, to check on the status of the air pressure system. When pressure was
15 found to be inadequate, technicians were dispatched to find and repair air leaks.
16 Air pressure equipment maintenance is also a major problem. For example, upkeep of the
17 dehydrators in the Central Offices, which remove the water from the system, is insufficient.
18 Antiquated or broken equipment is not replaced. And finally, jerry-rigged cable repairs also
19 undermine the viability of the air pressure system. For example, if temporary, plastic
20 enclosures are placed on damaged cables, air pressure leaks at that point. Only when a
21 permanent enclosure is applied can pressure be restored. Since the maintenance of air



1 pressure is critical to protecting copper cable from water damage,
2 the deterioration of air pressure equipment maintenance coupled
3 with the failure to perform cable repairs with high-quality, permanent fixes, severely
4 compromises customer service. Waterlogged cables cause static in the line, intermittent
5 outages, and other forms of substandard service. The breakdown in the air pressure
6 maintenance is manifest in all aspects of the system: too few workers are currently assigned
7 to work on air pressure, the company refuses to authorize high-quality repairs when cables
8 are damaged, and equipment like transducers, dehydrators and compressors are generally
9 kept well beyond their useful life, which is the single greatest cause of breakdown.

10 **Do you know anything about splicing?**

11 Yes. Splicing of damaged cables, like air pressurization, has become a patchwork effort in
12 which reliance on inferior and frequently inappropriate equipment, compounded by a lack of
13 staff time dedicated to the task, have caused severe deterioration. CWA members repeatedly
14 have told me of instructions from management that make professional and adequate
15 maintenance and repair impossible, in addition to the problems of ancient and defective
16 equipment. For example, until the late '90s, construction crews would perform what are
17 known as "estimates," in which they would evaluate the status of cable in a particular
18 neighborhood, and if the cable was damaged or unreliable, entire sections of cable would be
19 rehabilitated. If a 900-pair cable failed, it would be replaced with a 900-pair or 1200-pair
20 cable. Such replacement jobs are called "section throws"—fully replacing bad cables
21 between two poles or manholes. Today, "estimates" and "cable throws" are fading memories



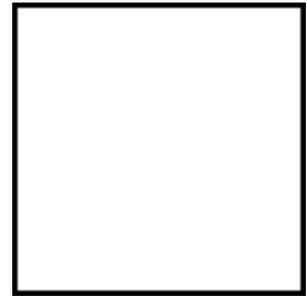
1 from another era. Technicians are repeatedly instructed not to
2 replace major cable failures with equivalent quality new cable, but
3 to splice in 6-pair or 12-pair “drop wires” to replace the damaged sections. Drop wire is
4 designed to be the last connection from the telephone network into a single customer’s
5 premises. It is relatively flimsy, it’s not grounded, and it’s not designed to be run long
6 distances. But this has not stopped Verizon from trying to cut costs by substituting “drop
7 wires” for major cables.

8 And worst of all, our technicians are instructed to mislead customers about the actual state of
9 repairs—to provide them, in a manner of speaking, with #alternatefacts. For example,
10 technicians report that when no good pairs were available for a customer who is
11 experiencing noise on the line, they are instructed to transfer the customer to a pair where
12 there is less noise. Then they are instructed to tell the customer, as Ron Mangeri explains in
13 his testimony, “The line should be better. If you have a problem, call me directly on my cell
14 phone.” By avoiding calls into the company’s repair offices, and routing them directly to
15 technicians, the trouble is not counted by PSC statistics as a ‘repeater.’” Stories like Ron’s,
16 of how technicians are asked to gently mislead customers on the status of their service,
17 abound around the state.

18

19 **Do you know anything about Voice Link?**

20 Yes. VoiceLink is a wireless technology that is connected to a customer’s home equipment
21 that had formerly been connected to the legacy network. The technology was first deployed



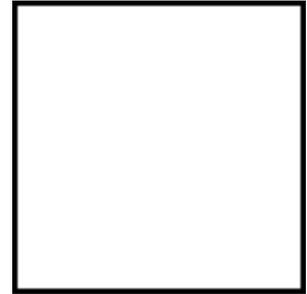
1 on a large scale around the time of Hurricane Sandy, when it was
2 offered as a permanent substitute for wired service of any kind in
3 Fire Island. Simultaneously, we saw VoiceLink units shipped to many garages across the
4 state. And increasingly, Verizon is shipping VoiceLink directly to customers, who are then
5 expected to install the technology themselves.

6 As a wireless service, VoiceLink does not offer data based services, cannot provide
7 LifeAlert to the elderly, cannot provide fax service, or credit card services to small
8 businesses. Shortly after the company's decision to deploy VoiceLink on a permanent basis
9 in Fire Island was challenged, the company hastily applied to the Commission for retroactive
10 permission to do so, and added in a request to deploy it wherever in the state it was deemed
11 a necessity by the company. Both of those requests were ultimately rejected by the PSC.

12 For the most part, in the years after the PSC's ruling, the company appeared to rely on
13 VoiceLink as a stopgap substitute where copper outages occurred. However, we have begun
14 to see VoiceLink used as a permanent replacement for copper service in places where the
15 company simply refuses to invest in proper repairs and FiOS is unavailable. Use of
16 VoiceLink, and its inferior services, are evidence that Verizon has no interest in appropriate
17 investment in maintaining basic phone service for all New Yorkers.

18 **Do you know anything about proactive maintenance policies and practices?**

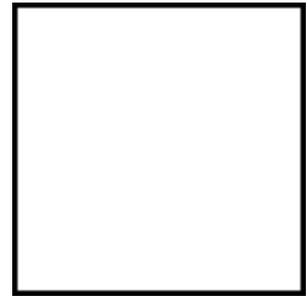
19 When I came to work at CWA in 1986 members were routinely assigned to proactive
20 maintenance crews and the company seemed committed to providing high-quality service to
21 its customers. Members talked about the pride they had in ensuring that customers received



1 quality service, from 411 operators who tracked down obscure
2 information to repair technicians who would go the extra mile to
3 ensure that a customer's service would be permanently trouble free. That is no longer the
4 case. As the company has turned its attention to more profitable services like mobile and
5 FiOS, system upkeep has been abandoned and equipment is continued in service beyond its
6 useful life. Drastic reductions in the workforce are also a major problem. CWA recognizes
7 that alternative technologies have reduced the number of customers and access lines, as PSC
8 Staff pointed out in its Assessment document used in this proceeding. Where there were
9 once over 12 million such lines the PSC Order initiating this proceeding indicates there are
10 2.7 million customers reliant on the legacy network with the line loss rate holding steady at
11 about 1% per month. But the workforce has been cut to the bone, and is simply too small to
12 meet the company's obligations to build out and service FiOS customers, and maintain the
13 copper network in good repair. Continued staff reductions make each employee responsible
14 for more and more access lines, which simply cannot be sustained. When I joined CWA we
15 had close to 40,000 members in New York State. Now we have slightly over 14,000
16 members working in the state. If Verizon is obliged to continue serving the roughly 2.7
17 million access lines the company reported to the PSC in its 2015 Annual Report—which we
18 contend that as a regulated telecommunications provider in New York State, it must—it
19 needs more workers and greater investment.

20 **Do you know anything about the age and condition of the physical plant?**

21 Yes. As I said, members describe two fundamental problems. First, the physical plant is



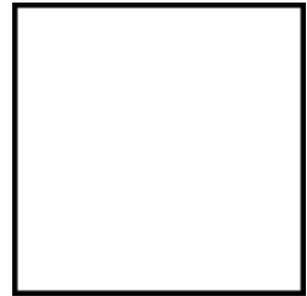
1 antiquated and deteriorating. Second, maintenance and repair
2 policies and practices are inadequate and intensify the
3 deterioration of the system. None of this should come as any surprise. Verizon CEO
4 Lowell McAdam told investors in June, 2012 that in rural areas, the company intended to
5 “cut the copper” and provide phone service with high-speed wireless. He added that in FiOS
6 areas, the company would “kill the copper” by migrating customers to FiOS, whether or not
7 they wanted to and indeed, even if copper service continued to be viable in a particular
8 location. To his credit, McAdam did not disguise the company’s intention to disinvest in the
9 copper network. It is up to the Commission to ensure that these deliberate, clearly
10 articulated company decisions do not leave millions of customers reliant on a phone network
11 that has gone without significant repairs or upgrades for many, many years.

12

13 **Do you know anything about the roll out of FiOS across New York?**

14 Yes. To make a very long story short, Verizon has been building FiOS to New York
15 customer premises since the mid-2000s. The buildout started in the New York City suburbs.
16 A turning point in the rollout came in 2008, when NYC granted Verizon a 12-year citywide
17 cable TV franchise which required the company to provide FiOS access to every city
18 resident by the end of 2014.

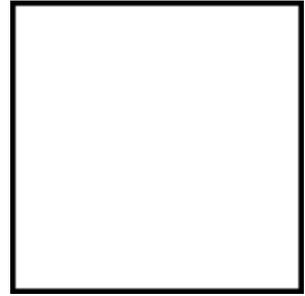
19 Verizon’s commitment to rolling out Verizon was robust and numerous downstate suburban
20 communities, as well as some upstate suburban areas, were quickly wired. Technicians
21 report that in the early years of the New York City buildout, the company diligently and



1 comprehensively deployed FiOS to neighborhoods across the city,
2 particularly in Staten Island. But based on information provided
3 by technicians, around the time that CEO McAdam articulated the company's "copper-
4 cutting strategy," Verizon's interest in a comprehensive buildout of FiOS appeared to wane.
5 The company began cutting back on the rate of its buildout in New York City, and made
6 clear that it had no intention of building FiOS in most of the upstate cities, leaving some
7 700,000 urban New York State residents without any form of high-speed competition. The
8 very large Town of Brookhaven in Suffolk County was also bypassed.

9 In New York City, Verizon has come under intense pressure from the City Administration to
10 fulfill the terms of its franchise agreement, and to ensure that every resident who wants FiOS
11 can obtain it within a reasonable time frame. Last year, New York City declared that
12 Verizon was in default of its franchise agreement for failing to meet the buildout
13 requirements, and has threatened to sue the company. While Verizon has significantly
14 increased its buildout rate as a result of the city's pressure, it is not on a pace to complete the
15 citywide buildout until several years after the franchise expires in 2020, as much as eight or
16 nine years after the 2014 deadline.

17 Meanwhile, upstate cities and many upstate suburbs languish in cable monopolies. Virtually
18 no New York State rural areas enjoy access to FiOS. In most of these communities,
19 customers face a virtual broadband monopoly because, as the Staff Telecommunications
20 Assessment reported in the summer of 2015, fewer than 1% of broadband customers choose
21 satellite as their provider and wireless alternatives are too costly because of data caps.



1 Millions of New Yorkers lack access to competitive choices of
2 broadband providers.

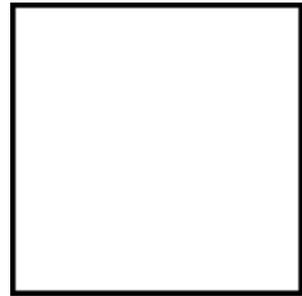
3 **What are the remedies for these problems?**

4 The remedies are not complicated.

5 State of Good Repair

6 Using its existing legal powers as they are described in the Order, the Commission should
7 adopt a requirement that the copper system be maintained in a “state of good repair”. This
8 makes explicit the requirement set forth in the Order that Verizon Under PSL §91(1),
9 “[e]very...telephone corporation shall furnish and provide with respect to its business such
10 instrumentalities and facilities as shall be adequate and in all respects just and reasonable,”
11 and is required to, under “PSL §98 to secure adequate service or facilities for...telephonic
12 communications...” and that “ the commission shall make and serve an order directing that
13 ... repairs [or] improvements ... be made within a reasonable time....” .” Order pages 7-8.

14 There is a growing public awareness of the deterioration of public infrastructure, including
15 telecommunications infrastructure. The policy goal of keeping systems in a “state of good
16 repair” (SGR) originated in transportation policy, and is now being applied to other systems.
17 The City of New York includes telecommunication services in its definition of infrastructure
18 which must be kept in a state of good repair. Its foundational policy document OneNYC
19 includes transportation, gas, steam, sewer, water, and telecommunications systems and sets a
20 goal of “[i]dentifying adequate funding resources to maintain and upgrade critically aging



1 infrastructure and ensure a consistent state of good repair...”¹

2 Existing SGR literature has many nuances and applications. At its
3 heart are simple principles: “No capital asset exceeds its useful life.” “No backlog of capital
4 needs exists.” “All asset life cycle investment needs have been addressed.”²

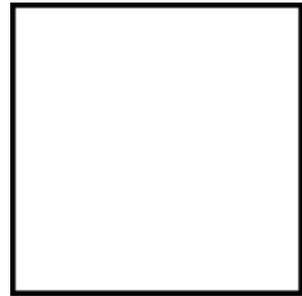
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6 The evidence before the Commission in this proceeding is compelling: The accepted
7 definition of SGR, when applied to the Verizon system, shows that the system is well
8 beyond Verizon's own definition of useful life, and that it is in a stage of advanced
9 deterioration.

10
11 The Commission has specifically raised the question of the adequacy of Verizon’s systems
12 in ways that directly reflect the need to have the system in a state of good repair.

13
14 PSL §98 provides that “[w]henver the commission shall be of
15 opinion, after a hearing...that repairs or improvements to...any
16 telephone line ought reasonably to be made...in order to promote
17 the convenience of the public ... or in order to secure adequate
18 service or facilities for...telephonic communications...the
19 Commission shall make and serve an order directing that such
20 repairs [or] improvements ... be made within a reasonable time
21 and in a manner to be specified therein and every...telephone

¹ One NYC p 32
²

<https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/Formulating%20a%20Definition%20of%20State%20of%20Good%20Repair%20for%20a%20Federal%20Program.pdf> p 4



1 corporation is... required and directed to
 2 make all repairs [or]
 3 improvements...required....”³

4
 5 [If]...the Commission determines that any action be taken regarding
 6 Verizon’s service quality, it may exercise its authority under PSL §98
 7 to order any improvements that are deemed necessary.⁴

8
 9 Service Quality Metrics and Penalties

10 The SQM system needs revision. The weakening of that program is at least partially
 11 responsible for the decline in service quality itself. The service quality data must be
 12 collected and assessed for both core and non-core customers. Penalties for failure to meet
 13 these standards must be increased to a level that makes it likely that Verizon will fix the
 14 problem rather than endure a fine as an acceptable cost of business.

15
 16 Both improved service quality programs, and a State of Good Repair standard, are needed.
 17 Absent a program of investment that ends the use of equipment beyond its useful life, absent
 18 a requirement that the copper system be returned to a state of good repair, and absent
 19 meaningful financial penalties to compel Verizon to maintain its network, the deterioration
 20 of service quality for millions of New Yorkers will only get worse and worse. Given the

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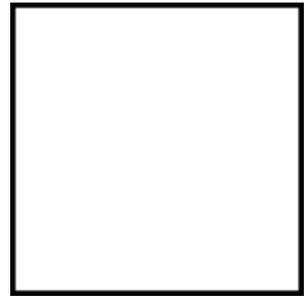
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Commission Order p.8

4

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Commission Order p. 12



1 public's continued reliance on the telecommunications network
2 for public health, emergency and vital business services, a failure
3 to reverse the deterioration of the system could one day lead to tragic consequences.
4 I also support the recommendations made by our other witnesses, including the retired CWA
5 employees and our technical experts.