

**COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF TELECOMMUNICATIONS AND CABLE**

CRC Communications LLC, d/b/a Otelco	)	
	)	
v.	)	D.T.C. 22-4
	)	
Massachusetts Electric Company d/b/a	)	
National Grid, and Verizon New England Inc.	)	
	)	

DIRECT TESTIMONY OF

DAVID L. WOLANIN AND JOHN P. GALLAGHER

ON BEHALF OF VERIZON NEW ENGLAND INC.

August 1, 2022

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1 **I. INTRODUCTION AND SUMMARY**

2 **Q. Mr. Wolanin, please state your name, title, and business address.**

3 A. My name is David L. Wolanin. I am a Senior Engineer – Outside Plant in Network
4 Engineering and Operations at Verizon. My business address is 365 State Street,
5 Springfield, Massachusetts 01105.

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

7 A. I have a Bachelor of Science degree in electrical engineering from Western New England
8 University. I have over thirty years’ experience in engineering and utility pole line
9 design, including ten years employed with local municipal power companies and 23 years
10 with Verizon. I am currently the Engineering Project Manager for all third-party, aerial
11 make-ready work in Massachusetts and Rhode Island in my role in Verizon’s License
12 Administration Group (“LAG”). My responsibilities include working with our pole
13 attachment licensees and applicants to resolve any make-ready issues that arise during the
14 licensing process, and I am familiar with the company’s policies with respect to the
15 proper and safe attachment of third-party facilities to the poles, determining the make-
16 ready work needed on a pole and what work is properly billable as make-ready.

17 **Q. Mr. Gallagher, please state your name, title, and business address.**

18 A. My name is John P. Gallagher. I am a Local Manager – Network Operations at Verizon.
19 My business address is 28 Diana Lane, Dracut, Massachusetts 01826.

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

1 A. I have a Bachelor of Science degree in political science from Bridgewater State
2 University. I have over 35 years of experience in outside plant work for Verizon. For the
3 last 20 years, I have been a foreman in Verizon MA's Construction group. Before that I
4 was a splice manager and before that, a splice technician for nine years. I currently
5 manage a group of 15 outside plant technicians who perform construction work on our
6 aerial network, including pole installation and removal and make-ready work to prepare
7 poles for new attachments by Verizon MA and by third parties as well.

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

9 A. We respond to a number of statements made in the Pre-filed Testimony of David Allen,
10 Tom Perrone and Lawrence Slavin filed by OTELCO in this proceeding.

11 **Q. Please summarize your testimony.**

12 A. In Section II, we explain, among other things, how allowing third parties to box poles
13 would impose additional costs on Verizon MA and, if done at scale, would impair
14 Verizon MA's ability to perform other needed work, including expanding its own, fiber-
15 optic-based broadband network, performing make-ready work for attachers and moving
16 and rebuilding its network facilities in response to state and municipal construction
17 projects.

18 In Section III, we explain how allowing OTELCO to attach below Verizon MA's
19 facilities on the poles is likely to result in mid-space clearance violations over time, may
20 delay clearing of roadways and repairs in the case of emergencies, would impose
21 additional costs on Verizon MA when replacing affected poles and would make future
22 make-ready surveys and work on the affected poles more expensive for later attachers.

1 Section IV addresses OTLECO's baseless claims that Verizon MA has charged it
2 for costs not caused by OTELCO's request to attach facilities to the poles. We explain
3 why it is fair and reasonable to charge OTELCO for the costs of replacing a pole where
4 pre-existing conditions on the pole could be remedied without replacing the pole but
5 there is no room on the pole for OTELCO's proposed attachment. In that scenario, the
6 reason why the pole has to be replaced and the existing facilities have to be transferred to
7 the new pole is to allow OTELCO to attach, not to remediate the preexisting conditions,
8 so OTELCO is the causer of those costs and should pay them.

9 Finally, in Section V we demonstrate that OTELCO's claims that Verizon MA
10 has delayed its construction project are unfair and unsupported, and that it's comparisons
11 of the costs of make-ready work in Massachusetts to costs in other states or to
12 OTELCO's budget do not support OTELCO's claim that it must be allowed to box poles
13 or attach below Verizon MA in order to reduce those expenses.

14 **Q. What are each witness's responsibilities regarding this testimony?**

15 A. Each witness has reviewed and concurs with the entire testimony. However, Mr.
16 Wolanin is primarily responsible for third-party pole attachment process issues, and Mr.
17 Gallagher is primarily responsible for construction and field-work issues. There are also
18 many legal issues related to this dispute, but we are not lawyers, so we may signal legal
19 issues here but leave their detailed treatment to legal briefs.

20 **II. BOXING POLES COMPLICATES WORK ON THE NETWORK AND SHIFTS**
21 **COSTS FROM OTELCO TO VERIZON MA**
22

23 **Q. In his pre-filed testimony, at 3-4, Mr. Perrone claims that "Boxing dramatically**
24 **reduces the need for costly make-ready, including pole replacements. The benefits of**

1 **Boxing are thus clear: more efficient use of existing space reduces make-ready costs,**
2 **pole replacements, and early retirement of otherwise useful pole assets.” How do**
3 **you respond?**

4 A. Mr. Perrone’s claim doesn’t address the harms to the network and the costs that boxing
5 imposes on other users of the poles, including the pole owners. The processes and
6 policies of Verizon MA’s Licensing Administration Group are intended to provide third-
7 party attachers with fair, reasonable and nondiscriminatory access to our network but also
8 to preserve the orderliness and safety of the network as more and more entities use the
9 poles. Boxing complicates future pole replacement, making that work more time
10 consuming and expensive for Verizon MA and imposing another burden on the finite
11 resources it has available to perform work on its outside plant, including expanding its
12 own broadband network, maintaining the network, performing make-ready for other
13 attachers or removing and rebuilding network facilities in response to municipal or state
14 projects.

15 In addition, technicians cannot climb past opposite-side construction on a pole,
16 preventing access to any Verizon MA facilities that are located higher on the pole, as may
17 be the case where there are multiple Verizon MA attachments on a pole. Verizon MA
18 would need to dispatch a bucket truck in those situations, driving up costs and imposing a
19 burden on Verizon MA’s limited inventory of bucket trucks. And Verizon MA owns
20 many poles that are not accessible by bucket truck, such as poles in residential backyards
21 and alleys.

1 So yes, boxing would make make-ready cheaper for third-party attachers, in this
2 case OTELCO. The fact is that it costs more to build the network right and to ensure the
3 continued ability of technicians – of Verizon MA, National Grid and other users of the
4 poles - to perform maintenance, repair and other work on the network in an efficient
5 manner.

6 **Q. Mr. Slavin provides an excerpt from the NESC that says that, “Longitudinal runs**
7 **on racks, or cables on messengers, are not considered as obstructing the climbing**
8 **space if the location, size, and quantity of the cables permit qualified workers to**
9 **climb past them.” Slavin Testimony at 9. Doesn’t that mean that technicians can**
10 **climb past an opposite-side facility?**

11 A. No. Based on my 20 years of experience as a foreman of outside plant technicians,
12 where a cable is attached to a pole in the communications space on the side opposite
13 other cables on the pole, there is not enough space for a technician to use gaffs to climb
14 past that part of the pole. My crews would not do that. Instead, they would delay the
15 work on the boxed pole until a bucket truck could be dispatched.

16 **Q. You say above that boxing makes replacing a pole more complicated, time-**
17 **consuming and expensive. Can you explain how that happens?**

18 A. Yes. National Grid’s response to the Department’s information request DTC-NG 1-23
19 does a good job explaining how boxing complicates a basic pole replacement. In
20 essence, because we cannot use the cut-and-kick method to replace a boxed pole, the new
21 pole has to be set in a new hole a few feet down the line, instead of placing it in the same
22 hole as we would normally do. When the existing attachers transfer their facilities to the

1 new pole, the attachment hardware – which would normally line up nicely with the new
2 pole, in the same hole as the old one – has to be relocated. The additional time it takes
3 Verizon MA’s technicians to relocate the attachment hardware from an old, boxed pole to
4 the replacement pole drives up the costs of the work overall. Obviously, the more
5 attachments on a pole, including transformers, junction boxes and other equipment in
6 addition to cables, the more time it will take to relocate them to the new pole.

7 And that is only the basic case. Verizon MA has many poles that support multiple
8 lines going in multiple directions. When a pole like that is replaced, we need to use the
9 cut-and-kick method to place the new pole in the same location as the old one. We do
10 not have the option of installing a new pole a few feet down one of the lines, as described
11 above, because then it would not be in line with the cables going in the other directions.
12 If the pole is boxed, the only option may be to require the party that boxed it to
13 temporarily remove its facilities – likely holding them a few feet away with equipment on
14 a bucket truck – while we (or the electric company) cut and kick the old pole and install
15 the new one. (Mr. Slavin mentions this technique in his testimony.) That in turn means
16 that every time Verizon MA needs to replace such a pole, it would first have to identify
17 the party that boxed the pole. That is not always an easy task because third party
18 attachers often fail to tag their facilities as required, and so Verizon MA would likely
19 need to revise its back office systems to track every pole that is boxed and the name of
20 each boxing entity, imposing an additional expense on the company.

21 Once the boxing entity is identified, Verizon MA would have to coordinate the
22 replacement work with that party. That takes more time by Verizon MA staff, and

1 scheduling two companies' crews to be on-site at the same time would often delay
2 completion of the work and may affect the timeline of larger projects that depend on the
3 pole to be replaced. Both of these results would drive up Verizon MA's costs. And this
4 does not even address the logistical nightmare of trying to coordinate the replacement of
5 a complicated pole that has been boxed by multiple parties.

6 **Q. Mr. Slavin admits that boxing a pole may make it more costly to replace it, but he**
7 **says that the party that boxed the pole could be required to reimburse the pole**
8 **owners for the added expenses. Slavin Pre-filed Testimony at 13. Is that a workable**
9 **solution?**

10 **A.** No. We have a number of concerns about that. While some boxed poles may need to be
11 replaced relatively soon, some may not be replaced for many years, and there is no
12 guarantee that the third party that boxed those poles will still be in business and able to
13 pay the added costs of replacing the boxed pole. Second, some of the costs imposed by
14 boxing are difficult if not impossible to quantify. Where replacing a pole requires
15 coordinating with the third-party that boxed the pole, the extent to which the project will
16 be delayed depends in large part on the responsiveness of the third party, and may even
17 cause delays in larger related projects. The costs of such delays are difficult to quantify
18 in advance.

19 In addition, Verizon MA has only a finite number of outside plant technicians and
20 crews to work on the poles. The longer it takes our crews to replace poles that have been
21 boxed, the fewer jobs they will be able to complete in a day or a week. If third parties are
22 allowed to box large numbers of poles across the state, then the added time demands on

1 Verizon MA's workforce to replace boxed poles would limit our ability to do other work,
2 as mentioned above, including expanding our broadband network, maintaining the
3 network, performing make-ready for other attachers or removing and rebuilding network
4 facilities in response to municipal or state projects. Payment by a third-party attacher for
5 the "incremental" costs of replacing a boxed pole would not compensate Verizon MA for
6 its reduced overall capacity to complete other work – or the other parties who may
7 depend on the timely completion of that work.

8 Finally, opposite-side construction will delay emergency restoration work where
9 poles that have been boxed come down in a storm or due to other catastrophic damage.
10 Especially if the poles are complicated ones requiring Verizon MA and its electric
11 company joint pole owner to coordinate their emergency restoration efforts with the third
12 party that boxed the pole, that could significantly delay restoring service to customers and
13 clearing roadways for public use. Payment from the third party attacher to Verizon MA
14 for the added cost of replacing boxed poles would not compensate our customers whose
15 service stays out longer, or members of the public who cannot use a roadway, because the
16 attacher boxed the poles.

17 **Q. Mr. Perrone says that, "NetSpeed LLC has never had an incident involving its**
18 **facilities in Connecticut attributable to Boxing," that he is "unaware of any such**
19 **incident involving another provider in Connecticut," and that in his experience,**
20 **boxing has not delayed restoration of services in emergencies. Perrone Pre-filed**
21 **Testimony at 4. Doesn't that show that boxing is safe?**

1 A. No, it doesn't. If a power company technician or an ILEC technician is injured while
2 working on or replacing a pole that had been boxed with the approval of the pole owners,
3 there is no reason that the pole owners would notify third-party attachers on the pole of
4 the accident, so it is not surprising that Mr. Perrone would be unaware of any accidents
5 that may have occurred on poles that Netspeed boxed in Connecticut. The same applies
6 to emergency restoration, because the pole owners who make those repairs and restore
7 customers to service are unlikely to take the time to explain to a third-party attacher how
8 its opposite-side construction delayed the restoration work.

9 Also, Mr. Perrone says at page two of his testimony that Netspeed only identified
10 Connecticut as a promising market in 2017, so its attachments have only been up and
11 presumably boxing some poles for less than five years. Boxing, however, complicates
12 work on the network permanently, and five years (at most) is not enough time to give an
13 accurate picture of the consequences. Finally, to the extent that the pole owners have
14 been able to replace boxed poles without accidents, it is because they are investing more
15 care and time into the replacement process than they need for unboxed poles. Mr.
16 Perrone doesn't provide any information on how much additional work or expense
17 boxing has put on the shoulders of pole owners in Connecticut.

18 **Q. Mr. Allen notes that a Verizon Network Operations and Engineering Flash (Exhibit**
19 **B to Mr. Wolanin's affidavit) states that "Verizon may permit Licensees to share**
20 **hardware ...," and he claims that "... OTELCO would be willing to utilize the back**
21 **side of Verizon's bolt, if that is what the Engineering Flash is offering." Is it?**

1 A. No. Mr. Allen has intentionally taken a phrase from the Flash out of context. The full
2 sentence says that, “While Verizon may permit Licensees to share hardware, it will not
3 permit Licensees to share Verizon’s **own** hardware (suspension strand, guys, bolts,
4 extension arms, extension bolts, etc...).” Sharing of hardware unduly complicates our
5 ability to work on our own facilities, including if another party were to use the backside
6 of a Verizon MA through-bolt.

7 Q. **Mr. Allen states in his pre-filed testimony, at 15, that Verizon MA did not tell**
8 **OTELCO until May 5, 2022, that Verizon MA allows boxing in some circumstances.**
9 **In the months since May 5, has OTELCO identified to Verizon MA any poles that**
10 **OTELCO believes it should be allowed to box under Verizon MA’s written policy?**

11 A. No, it has not.

12 Q. **In response to information request VZ-O 1-4, OTELCO stated in part that, “It**
13 **would be unduly burdensome, and disproportionate to the needs of this case, to**
14 **require OTELCO to identify each and every one of the poles on which OTELCO**
15 **contends that assessed make-ready costs could be avoided by allowing it to box the**
16 **pole.” What do you make of OTELCO’s response?**

17 A. OTELCO is the party seeking to attach its facilities to poles owned by Verizon MA and
18 National Grid. The pole owners have already surveyed the poles, reconciled those
19 surveys and determined what work is needed to prepare the poles to accommodate
20 OTELCO’s attachments. If OTELCO doesn’t agree with that determination and thinks
21 that it should be allowed to box certain poles under Verizon MA’s policy, it is
22 OTELCO’s responsibility to identify those poles to Verizon MA for its consideration.

1 **Q. Mr. Allen also asserts, at page 16 of his pre-filed testimony, that boxing benefits pole**
2 **owners, by avoiding pole replacements, which he says are “costly and time**
3 **consuming,” and by avoiding replacing poles prematurely. Do you agree?**

4 **A,** No. OTELCO wants to box poles because it puts off the day that the pole will be
5 replaced, so that OTELCO won’t have to pay for it. But almost every pole that OTELCO
6 is allowed to box will need to be replaced at some point,¹ and if OTELCO boxes enough
7 poles, some of those poles will need to be replaced sooner rather than later. At that point,
8 replacing the poles will be more complicated and require more work because OTELCO
9 has boxed them. Those costs easily outweigh the alleged benefits to Verizon MA of
10 boxing poles.

11 And if OTELCO and others are allowed to box large numbers of poles to avoid
12 even minor make-ready work, the additional time and resources Verizon MA would be
13 forced to devote to replacing boxed poles would be time and resources that it cannot
14 devote to other demands on its resources, as explained above. OTELCO should not be
15 allowed to foist its costs and responsibilities off on Verizon MA by taking the expedient
16 route to network construction.

17 **Q. Mr. Wolanin explained in Exhibit E to his affidavit in this proceeding that some of**
18 **the 14 poles OTELCO would like to box are not suitable for boxing because they are**
19 **already particularly difficult to work on. In his pre-filed testimony, at 14, Mr.**
20 **Slavin says that in those situations, “make-ready alternatives, possibly requiring a**

¹ As Mr. Slavin points out, it is possible that some poles could be removed and not replaced as part of an undergrounding project mandated by a municipality. Slavin Pre-filed Testimony at 13. Undergrounding is less popular than it used to be, however, and it is usually confined to a city or town’s downtown, affecting relatively few poles.

1 **pole replacement, may be similarly problematic, rendering boxing as the most**
2 **practical solution....” How do you respond?**

3 A. Mr. Slavin seems to be saying that where a pole would be difficult to replace, boxing is a
4 more practical solution. But as I explained above, boxing only puts off the day of
5 reckoning. Where a pole would already be difficult to replace due to its location or the
6 presence of side-taps or other existing facilities, boxing the pole would only make a
7 difficult task more difficult when the pole eventually is replaced. The added costs of
8 replacing such a pole, and the additional resources needed to get the job done, could be
9 significant. So the practical solution is not to box the pole but to replace it, and avoid
10 especially problematic pole replacements in the future.

11 **Q. Mr. Slavin also says that Mr. Wolanin rejected boxing on poles 2, 3, 4, 10 and 14 on**
12 **Exhibit E to his affidavit because “the make-ready work is ‘not overly-complicated,’**
13 **and the apparently little expense of make-ready work (typically \$1,450) does not**
14 **justify the possible additional difficulty of boxing.” Mr. Slavin then questions the**
15 **basis on which Mr. Wolanin made this “economic decision.” How do you respond?**

16 A. It wasn’t an economic decision. The key fact is that in these cases, the make-ready work
17 that would be avoided by boxing the poles is not overly complicated and would not
18 justify making future work on those poles more complex by boxing them. The cost of the
19 make-ready work only confirms that the proposed work on the pole is not complicated.

20 **Q. But doesn’t Mr. Slavin have a point where he says, at pages 14-15 of his pre-filed**
21 **testimony, that the tension added to poles by boxing, such as where the line turns a**
22 **corner, can be addressed by adjusting the guying system on the pole?**

1 A. It is true that the guying on a pole can be adjusted in response to the opposite-side tension
2 added by boxing, but that contributes to the difficulty in replacing the pole later, so
3 “corner” poles and similar situations (such as where a pole supports multiple lines
4 running in multiple directed as discussed above) are not appropriate to be boxed.

5 **Q. Mr. Slavin also argues in his pre-filed testimony, at 15, that even though Verizon**
6 **MA and National Grid have determined that pole 7 on Exhibit E to your affidavit**
7 **need not be replaced, the work that would be required on the pole (moving two**
8 **attachments) would still be more expensive than boxing the pole. How do you**
9 **respond?**

10 A. Mr. Slavin seems to be arguing that OTELCO should be allowed to box every pole that
11 would otherwise require make-ready work, because boxing is cheaper for OTELCO. But
12 as we explained above, boxing adds complications and costs to future work on the
13 network. Where there are other make-ready options available to prepare a pole to accept
14 a new attachment, those options should be used rather than boxing a pole.

15 **Q. Mr. Slavin says that Mr. Wolanin’s analysis of poles 11 and 13 on Exhibit E to his**
16 **affidavit, which do not require any make-ready work by Verizon MA, ignores the**
17 **fact that “Costly make-ready work may be required of other entities...” on those**
18 **poles. Do you agree?**

19 A. No. The only make-ready work required of any current attachers on these poles is for
20 National Grid to raise its secondary, and this is not overly complicated work either.

1 **III. THE ORDER OF ATTACHMENTS ON THE POLES**

2 **Q. Mr. Allen states at 19 of his pre-filed testimony that “Where there is insufficient**
3 **space to attach above the lowest attachment and sufficient space below, attaching in**
4 **the lowest point avoids time consuming and costly make-ready work.” Is that good**
5 **enough reason for allowing OTELCO to attach below the facilities of Verizon MA?**

6 **A.** No, it isn’t. There is a standard hierarchy of facilities placement on utility poles, with the
7 electrical service facilities at the top, a neutral zone, then municipal and other third-party
8 communications providers’ attachments and finally, the larger, heavier telephone
9 facilities. As explained in Mr. Wolanin’s affidavit and Exhibit B to that affidavit,
10 allowing third-party attachers to place their facilities below those of Verizon MA on the
11 poles raises a number of problems. First, attaching a lighter fiber-optic cable below
12 Verizon MA’s heavier copper cable or bundle makes it much more difficult, if not
13 impossible, to maintain required clearances between facilities at the middle of the span.
14 Second, when a pole is replaced, a Verizon MA crew will normally transfer the
15 company’s facility to the new pole and also remove the old pole in a single trip, but a
16 third-party facility attached below Verizon MA would require two trips – one to transfer
17 Verizon MA’s facility and another to remove the old pole after the third-party has
18 transferred its own facility. Third, the industry standard hierarchy provides a consistent
19 means of identifying facilities, which is especially useful in the case of emergencies, and
20 disrupting this standard hierarchy is likely to lead to confusion in emergency situations
21 and therefore to delay in restoring service.

1 **Q. Are there other problems arising from allowing third parties to attach their facilities**
2 **below those of Verizon MA?**

3 A. Yes. OTELCO has not explained how it intends to attach below Verizon MA on some
4 poles in a line of poles where other poles in that line do not have enough room for a third
5 party to attach beneath Verizon MA and still meet applicable clearance requirements. If
6 OTELCO intends for Verizon MA and other existing attachers to raise their facilities on
7 those poles to make room for OTELCO below, that wouldn't reduce overall make-ready
8 costs but merely shift the work from lowering attachments on some poles to raising them
9 on other poles. OTELCO cannot simply run its cable from below Verizon MA on one
10 pole to above Verizon MA (and possibly other attachers) without violating mid-span and
11 pole attachment clearance requirements. OTELCO might have a plan to dead-end its
12 cable on the last pole on which there is room to attach below Verizon MA, then run
13 vertically up the pole to a position above Verizon MA and possibly other attachers, and
14 then resume its run, but the vertical run would likely violate NESC requirements for
15 clearances between facilities on the pole.

16 Regardless of how OTELCO expects to solve this issue, allowing OTELCO to
17 attach below Verizon MA on some poles and above it on others would make the pole
18 owners' make-ready surveys significantly more complicated, as the surveyors would
19 need to identify different heights for the new attachments on different poles and, if dead-
20 ending is to be used, which poles could support that technique. That would lead to greater
21 survey costs and would substantially delay completion of the surveys and the pole
22 owners' make-ready estimates, not just for OTELCO but for any third-party that later

1 seeks to attach to those poles. It would also render make-ready work more costly and
2 less efficient, because where the make-ready plan calls for Verizon MA to move its
3 facilities, Verizon MA's crews would have to move its facilities on some of the poles
4 before OTELCO moves its attachments, and could only move its facilities on other poles
5 after OTELCO moves its cables, requiring two trips where only one is needed today.

6 Allowing third-parties to attach below Verizon MA on the poles is likely to delay
7 restoration of service and clearing of the public ways when a truck pulls down a line
8 crossing a road, which is not an infrequent event. In many of those instances, the line
9 taken down is the lowest one on the poles – Verizon MA's. Municipal police or public
10 safety officials notify Verizon MA of the issue and we dispatch appropriate personnel to
11 repair the damage and restore service. Where the lowest attacher on the pole could be
12 any one of a number of parties, municipal officials will not know who to notify. At best,
13 they would call Verizon MA or the power company, and we would try to identify the
14 owner of the facility. Either way, the confusion over who owns the lowest facility on the
15 pole is likely to delay the clean-up and restoration work. (And the owner of that
16 attachment may face legal ramifications and exposure to damages if its facility was too
17 low to meet applicable clearance requirements.)

18 **Q. Mr. Allen says in his pre-filed testimony, at 18, that OTELCO is able to attach its**
19 **fiber-optic cables below heavier copper cables “by increasing the amount of sag in**
20 **our lines. We have not experienced any problems in Maine resulting from attaching**
21 **below heavier copper facilities.” And Mr. Slavin agrees that lighter lines can be**
22 **“sagged in,” see his pre-filed testimony, at 15-16. How do you respond?**

1 A. In theory, a party should be able to sag in a lighter line below a heavier one, but doing it
2 right takes time to properly adjust the tension on the fiber-optic cable and supporting
3 strand to achieve the minimum 6-inch clearance required by Verizon MA between lines
4 at mid-span. (Verizon MA's normal objective in cable placement is 10" of separation at
5 mid-span.) It may also require additional space on the pole – more than the 12 inch
6 separation standard, to account for the different sag characteristics of the facilities and the
7 length of the span. In practice, we have found that contractors installing facilities for
8 third parties, who are almost always paid by the project and not by the time it takes to
9 perform the work, often do not properly tension the new facility to meet mid-span
10 clearances between existing facilities of other attachers.

11 In addition, even if a new fiber cable is initially installed below Verizon MA's
12 heavier copper cable with the required 6-inch minimum clearance at mid-span, the copper
13 cable is likely to sag more than the fiber over time and changing weather conditions,
14 causing a violation at the mid-span and potentially resulting in the facilities crossing each
15 other and resulting in damage. Conversely, allowing too little tension in the fiber-optic
16 cable and messenger strand may result in excessive sagging and violation of the
17 applicable ground clearance standard. These issues are also explained in sections 3.1.1
18 and 3.1.2 of Verizon's Network Operations and Engineering Flash that was filed as
19 Exhibit B to Mr. Wolanin's affidavit.

20 In the field, these concerns with placing lighter facilities below heavier ones on
21 the poles may only become apparent over time. OTELCO doesn't say how long its
22 attachments have been in place in Maine, but over time, there are likely to be instances

1 where its facilities no longer meet the mid-span clearance requirement or even cross other
2 facilities on the poles, depending on how well the facilities were installed and how well
3 they've been maintained after installation.

4 **Q. But Mr. Slavin says in his pre-filed testimony, at 16, that weather shouldn't be a**
5 **problem, because a heavier copper cable may sag no more, and possibly less, than a**
6 **lighter fiber-optic cable in severe weather as defined by the NESC. He says that for**
7 **an installation that complies with the NESC, "the mid-span clearances between the**
8 **cables may actually increase under the severe weather conditions, making**
9 **"crossover" less, not more, likely to occur." Doesn't that resolve the issue?**

10 **A.** No. We are not experts in interpreting the provisions of the NESC, and maybe our
11 weather in New England is more extreme than the NESC's standard, but our experience
12 managing and working on the actual Verizon MA network in Massachusetts is that
13 copper cables commonly sag more in the summer heat than fiber-optic cables. The larger
14 copper cables also sag more under snow and ice loading due to winter storms than the
15 smaller fiber-optic cables. Again, based on our experience in the field, where a fiber-
16 optic cable is placed below a heavier copper cable with an initial mid-span clearance of
17 only six inches, the copper cable is likely to sag more than the fiber cable due to weather
18 conditions, potentially creating a mid-span violation and resulting in cables contacting
19 one another.

20 **Q. Aside from your experience in the field, is there other support for maintaining**
21 **Verizon MA's facilities as the lowest attachment on the poles?**

1 A. Yes, there is. Section 3.2.1 of the Telcordia Blue Book (2017 Edition), titled “Hierarchy
2 on Pole” explains the basis for the industry standard hierarchy on the poles, in part as
3 follows:

4 Within the communications space on the pole, considerations of cable
5 characteristics (weight per foot, diameter, sag characteristics, etc.) should
6 determine preferred hierarchy on the pole. Given the heavier nature of metallic
7 pair traditional communications (telephony) plant, it is recommended that fiber
8 optic and coaxial communications plant be placed above existing metallic pair
9 communications plant as long as this is possible without compromising the 40
10 inches of separation between communications space and electrical power space on
11 the pole.
12

13 Since the larger and heavier pair count metallic cables will tend to have larger
14 sags and overload factors than fiber or coaxial cables, locating these metallic
15 cables as the lowest on the pole will provide an additional safety factor to avoid
16 physical contact or interference between different communications cables and
17 between cable plant of different telecom carrier companies.
18

19 **Q. Mr. Allen states in his pre-filed testimony, at 19, that a study by CHR Solutions,**
20 **Exhibit DA-7, shows that OTELCO would save over \$107,000 on one of its pole**
21 **applications if it were allowed to attach below Verizon MA’s facilities where there is**
22 **sufficient ground clearance. How do you respond?**

23 A. The study is fundamentally flawed. About \$94,000 of the alleged savings in the CHR
24 study comes from eliminating ten pole replacements that were called-for in Verizon
25 MA’s make-ready estimate. However, no matter what order that facilities are on a pole
26 from top to bottom, they still use the same amount of vertical space on the pole, so
27 placing OTELCO below Verizon MA’s facilities, instead of above, would not save any
28 space on the pole, and it would not eliminate the need to replace the pole.

29 Based on our review of the study results in Exhibit DA-7 and Verizon MA’s
30 make-ready survey results for these poles, it appears that CHR may have determined how

1 low OTELCO could attach on the poles by applying ground clearances that are used in
2 other areas of the country but that are not appropriate in our harsh New England weather.
3 Verizon MA has long required greater clearances to protect the safety of the public and
4 the network under heavy storm loading conditions on the poles. For example, the NESC
5 requires only 15.5' of clearance over a road or residential driveway, whereas Verizon
6 MA's heavy storm loading standard in Massachusetts is 18' in both situations (although
7 Verizon MA will commonly reduce its requirement to 16' for a residential driveway not
8 used by trucks or commercial equipment). Verizon MA provided the full chart of its
9 Massachusetts heavy storm loading ground clearance requirements in response to
10 OTELCO-VZ 2-16.

11 With application of the heavy storm loading clearance requirements used in
12 Massachusetts, OTELCO's proposed technique of attaching below Verizon MA would
13 not eliminate the pole replacements included in Verizon MA's make-ready estimate. In
14 addition, there may not be enough room for OTELCO to attach below Verizon MA on
15 other poles covered by the study without requiring Verizon MA and perhaps other
16 attachers to move their attachments up on the poles. For these reasons, the cost savings
17 to OTELCO from attaching below Verizon MA on the poles covered by the CHR study,
18 if any, would be minor.

19 **Q. You explained above that if OTELCO is attached below Verizon MA on a pole, then**
20 **Verizon MA would need to send crews out twice, instead of once, when the pole**
21 **needs to be replaced. Mr. Allen tries to address that issue at 19-20 of his Pre-file6d**
22 **Testimony, where he offers that, "OTELCO would pay Verizon a unit price to**

1 **transfer OTELCO's facilities at the same time Verizon transfers its own facilities."**

2 **Would such an agreement resolve Verizon MA's concerns?**

3 A. No. In the first place, it would not address the other problems caused by a third-party
4 attaching below Verizon MA, explained above, such as facilities crossing at mid-span
5 and the added complexity of future make-ready surveys and work. Moreover, Verizon
6 MA is not a construction company. We are in business to provide communications
7 services to customers, not to build networks for other providers. The company has finite
8 resources to devote to our outside plant, and there are many demands on those resources,
9 including upgrading the network to expand Verizon MA's Fios broadband services,
10 maintaining existing infrastructure, and construction in response to municipal and state
11 road and other projects. Verizon MA will move the facilities of other attachers in limited
12 circumstances such as in clearing a roadway in an emergency or where the failure of a
13 third-party to transfer its facilities on time is delaying other needed work, but OTELCO
14 should not be allowed to pass off its own work to Verizon MA in the name of saving
15 OTELCO time and money.

16 **IV. OTELCO SHOULD BEAR THE COST OF THE WORK IT CAUSES**

17
18 **Q. Mr. Allen asserts at 12 of his pre-filed testimony, that "Even where existing facilities**
19 **are out of compliance with governing specifications, if Verizon and/or National Grid**
20 **determine that sufficient space exists to rearrange those facilities but not to**
21 **accommodate OTELCO, they charge OTELCO 100% of the costs to replace the**
22 **poles." Is it fair and reasonable to charge OTELCO the full costs of replacing the**
23 **pole in this situation?**

1 A. Absolutely. The general rule is that the party that causes work to be done on the poles
2 must pay for that work. As explained in the Wolanin Aff., the mere fact that attachments
3 on a pole do not comply with the NESC or other applicable standards does not
4 necessarily mean that there will be no make-ready work on the pole billable to the new
5 attacher. Where a non-compliant pole would require work to accommodate a new
6 attachment even in the absence of the code violations, then the new attacher is obligated
7 to pay for that make-ready work. For example, where remediating a non-compliant
8 condition on a pole would require replacing the pole with a taller one, Verizon MA would
9 not bill the cost of the pole replacement to the new attacher. However, if the non-
10 compliant condition could be fixed without replacing the pole but the now-compliant pole
11 would not be tall enough to accommodate the new attachment, then the new attacher
12 would be required to pay for the pole replacement, because that work was made
13 necessary by the new attachment.

14 **Q. But Mr. Allen points out that in this situation, replacing the pole allows Verizon MA**
15 **to avoid the cost of rearranging the facilities on the old pole to remedy the**
16 **noncompliance. See Allen Pre-filed Testimony, at 12. Shouldn't that result in a**
17 **discount to OTELCO?**

18 A. No. To begin with, the party that might avoid some cost is not Verizon MA in many
19 cases but another attacher on the pole. For example, if the CATV attachment on the old
20 pole is too high and needs to move down, but the pole has to be replaced to accommodate
21 OTELCO's new attachment, the CATV provider would be able to transfer its facility
22 directly to the new pole, instead of first moving the facility down to a compliant position

1 on the old pole and then transferring it to the new pole. In that case, the CATV provider
2 would avoid a move on the pole, and save some costs, but Verizon MA would not save
3 any costs.

4 More to the point, the costs charged to OTELCO in that scenario – for replacing
5 the pole and transferring the facilities to the new pole – would be the same whether the
6 CATV provider moves down the old pole first and then to the new pole or whether it
7 transfers its attachment directly to the new pole from its non-complaint position on the
8 old pole. In other words, whether the pre-existing attacher saves money or not, it is
9 OTELCO – and no one else – that is causing the pole to be replaced, and OTELCO is
10 responsible to pay the full costs of the replacement work.

11 **Q. Mr. Perrone claims that, “If a new attachment may be made that is, in itself,**
12 **compliant with the NESC, the NESC does not require immediate correction of other**
13 **existing noncompliance before attachment under most circumstances.” Perrone**
14 **Pre-filed Testimony at 7. Does that change your position?**

15 A. No. Verizon MA agrees that where there is preexisting noncompliance on a pole, but
16 there is nevertheless room on the pole to accommodate a new attachment in compliance
17 with applicable requirements, the preexisting condition does not require immediate
18 remediation. To my knowledge, Verizon MA has not charged OTELCO for remediating
19 any such preexisting conditions.

20 **Q. Mr. Allen alleges in his Pre-filed Testimony, at 11, that the poles listed in Exhibit C**
21 **to his Declaration are examples of instances where “OTELCO had identified pre-**
22 **existing conditions to Osmose that were initially marked as billable (that is,**

1 **chargeable to OTELCO)” and that “National Grid changed certain conditions**
2 **initially marked as billable to non-billable.” How do you respond?**

3 A. I am not aware whether National Grid at some point decided not to charge OTELCO for
4 the make-ready work on these poles. As explained in Mr. Wolanin’s affidavit and in
5 Verizon MA’s response to information request DTC-VZ 1-15, however, the four pole
6 replacements and the other work that Verizon MA assessed OTELCO on these five poles
7 are all necessary to prepare the poles to accept OTELCO’s attachments and is caused by
8 OTELCO, not by the location of the existing attachments. OTELCO was properly
9 invoiced for the costs of this work.

10 **Q. Mr. Allen asserts on page 12 of his Pre-filed Testimony that “the current proposal is**
11 **for OTELCO to pay for the pole replacement [of P54 on Sykes Street in Palmer] –**
12 **even though there is a pre-existing condition that cannot be remedied without a pole**
13 **replacement – or to install an underground fiber path around this pole.” Is that**
14 **accurate?**

15 A. No. Verizon MA’s make-ready estimate, which we provided to OTELCO on May 9,
16 2022, calls for that pole, T.624/E.54 on Sykes Street, to be replaced, but the estimate
17 clearly shows that the work is *not* billable to OTELCO. A copy of that portion of the
18 make-ready estimate is attached hereto as Exhibit VZ 1. My understanding is that
19 National Grid did not charge OTELCO for replacing this pole either.

20 **Q. Mr. Allen also asserts that where a pole needs to be replaced in order to**
21 **accommodate OTELCO’s proposed attachment, Verizon MA and National Grid**
22 **charge OTELCO the full cost of replacing the pole, “regardless of whether the pole**

1 **is old and in poor condition, and therefore likely in need of replacement in the near**
2 **term.” See Allen Pre-filed Testimony at 12. Is that appropriate?**

3 A. Yes, because the only reason the pole needs to be replaced is because OTELCO plans to
4 add an attachment to it. To be clear, we do not charge a third-party attacher to replace a
5 pole where the make-ready survey shows that it already needs to be replaced, due perhaps
6 to damage, rot or excessive lean. In those cases, Verizon MA and its joint pole owner
7 absorb the cost of replacing the pole. But where a pole is not currently in need of
8 replacement, and the only reason it is being replaced is to accommodate a new third-party
9 attachment, the attacher is the cause of the resulting expense, and it is properly charged to
10 that party.

11 **V. OTELCO’S ALLEGATIONS THAT VERIZON MA HAS CAUSED DELAY AND**
12 **ASSESSED UNREASONABLY HIGH MAKE-READY COSTS ARE**
13 **UNSUPPORTED.**

14 Q. **Mr. Allen asserts, on page 6 of his Pre-filed Testimony, that it has taken “on average**
15 **about 179 days from the time we submit [an application] in the Verizon portal to the**
16 **time Verizon provided the invoice.” Is that number accurate, and is that a long time**
17 **in these circumstances?**

18 A. OTELCO’s figure is somewhat high, in that our records show an average time between
19 when OTELCO filed its applications and when Verizon MA issued its make-ready
20 estimate of 160 days. But neither of these intervals is an especially long time given the
21 enormous size of OTELCO’s project and the work required to process each application.

1 Beginning on May 30, 2021, OTELCO submitted 266 applications to Verizon
2 MA to attach to over 22,000 poles in western Massachusetts. (OTELCO subsequently
3 withdrew 38 of those applications.) More than 200 of those applications were submitted
4 in the last six months of 2021. Based on the sheer number of poles in these applications,
5 this is one of the largest third-party pole attachment projects in Massachusetts in decades.
6 And each application generates a substantial amount of work to survey every pole and
7 develop a make-ready estimate, as explained in detail in Verizon MA's responses to
8 information requests DTC-VZ 1-23 and 1-32.

9 Verizon MA has finite and limited resources, in terms of personnel, to process
10 third-party pole attachment applications, and OTELCO is by no means the only third
11 party seeking to attach facilities to Verizon MA's poles. A project as large as OTELCO's
12 will take time to complete the surveys, prepare the make-ready estimates and perform
13 related tasks. By way of example, Verizon MA worked closely with the Massachusetts
14 Broadband Institute on the MBI's project to attach to over 40,000 of Verizon MA's poles
15 in western Massachusetts and was able to help MBI complete that project in about ten
16 years.

17 The Pole Attachment Agreement between Verizon MA and OTELCO addresses
18 the constraints on Verizon MA. Section 4.2 of the Agreement provides in part that:

19 Licensor reserves the right to limit the filing for pole attachments to no
20 more than 2,000 poles on all applications that are pending approval by
21 Licensor at any one time within a single Planning Manager's Area.
22 Licensee further agrees to designate a desired priority of completion of the
23 Pre-construction Survey and Make-ready Work for each application
24 relative to all other of its applications on file with the Licensor at the same
25 time.
26

1 Verizon MA has not invoked the 2,000 pole limit on OTELCO, but these provisions
2 reflect the parties' understanding that there are limits to the volume of poles that Verizon
3 MA can process for attachment. And OTELCO's project dwarfs the 2,000 pole limit by a
4 factor of over ten.

5 **Q. Mr. Allen argues that "OTECLO should not have to simply accept unreasonably**
6 **high and time-consuming make ready work where better options are available...."**
7 **Allen Pre-Filed Testimony at 8. Isn't that reasonable?**

8 A. Not here, because as we have tried to show in this testimony, Verizon MA's make-ready
9 estimates to OTELCO are not unreasonably high or time-consuming, and they apply the
10 best and most efficient make-ready options available for each application and run of
11 poles.

12 In addition, Verizon MA's make-ready estimates to OTELCO are just that –
13 estimates. Once make-ready work on an application is complete, Verizon MA does a
14 true-up of the estimate compared to the actual costs of performing the work, based on the
15 actual time Verizon MA spent on the work and the cost of the materials involved.
16 OTELCO could have raised objections with the proposed make-ready but then reserved
17 its right to contest the charges once the final charges were available, in order to allow
18 construction to proceed without delay. Other attachers have done this to preserve their
19 rights without delaying construction, although frankly, Verizon MA is usually able to
20 resolve make-ready disputes with pole attachers before reaching the true-up stage.

21 **Q. Mr. Allen asserts that the make-ready estimates issued by Verizon MA and National**
22 **Grid are much higher than the costs per mile that OTELCO incurred in building**

1 **networks in Maine and Connecticut. Allen Pre-Filed Testimony at 10. How do you**
2 **respond?**

3 A. OTELCO doesn't provide enough information to determine if this is a fair comparison.
4 Every project is different, and the make-ready costs for applications within Massachusetts
5 alone vary across a wide range, depending on many factors, including the height of the
6 poles the applicant wants to attach to, the age, condition and accessibility of the poles, the
7 volume and nature of pole owners' facilities on the poles and the number of third-party
8 facilities on the poles, including wireless facilities. Another factor is whether the current
9 facilities on the poles were placed and maintained in an orderly way, to allow make-ready
10 work to be performed efficiently. Without this information, there is no way to fairly
11 compare the make-ready costs of one project or application with the costs of another.
12 There is also no way to determine how much of the alleged cost differential is due to the
13 rules in Maine and Connecticut on boxing and attaching below the ILEC and how much
14 is due to other factors described above.

15 Q. **Mr. Allen alleges that the make-ready estimates in Massachusetts are "nearly**
16 **triple" the amount that OTELCO budgeted for the project based on its "experience**
17 **deploying communications networks in other states" and on "good-faith, reasonable**
18 **assumptions concerning make-ready, construction costs, and application cost...."**
19 **Please address his claims.**

20 A. I have not seen OTELCO's budget, but if it is that far off the actual estimated make-ready
21 costs, it appears likely that OTELCO drastically underestimated the number of poles that
22 would need to be replaced to accommodate its attachments, or it assumed that it would be

1 allowed either to box large numbers of poles or to attach below Verizon MA's facilities
2 on large numbers of poles. These are not reasonable assumptions. OTELCO should have
3 known from the outset of its project that Verizon MA does not allow third parties to
4 attach below Verizon MA or to box poles except in exceptional circumstances. Verizon
5 MA's policies on those issues have been in place for many years, and the actual
6 attachments on the poles show that. Any reasonable company planning a project to build
7 a new network on tens of thousands of poles would be expected to do a preliminary
8 investigation of the state of those poles in the planning stage of the project and before
9 filing pole attachment applications. And anyone with the "experience deploying
10 communications networks" that OTELCO says it has would have recognized, simply
11 from driving past the poles, that very few poles are boxed and that Verizon MA's
12 facilities are the lowest facilities on every pole to which they are attached. In addition to
13 conducting drive-bys of the poles, prospective third-party attachers sometimes seek
14 information from Verizon MA's License Administration Group about the company's pole
15 attachment process, including its make-ready practices, to better inform their project
16 planning and budgeting. To the extent that OTELCO was planning on saving make-
17 ready costs by boxing poles and attaching below Verizon MA, in a state in which it had
18 not previously built on many if any poles, it should have been expected to ask the owners
19 of the poles about their policies on those issues. A pre-project call or meeting on these
20 issues would have made clear that OTELCO could not rely on these techniques in its
21 budget.

1 **VI. CONCLUSION**

2 **Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?**

3 **A. Yes.**

Exhibit VZ-1

Telco Pole #	ELCO Pole #	Street Name	Description	Action	New Height	Comments	Quantity	Reqd. For ISS	Billable	Amount(\$)
624	54	SYKES	13A - REMOVE POLE - ALL SIZES - INCLUDING DISPOSAL	Other		RMV POLE	1	YES	NO	\$998.15
624	54	SYKES	21A - TRANSFER/MOVE/RAISE/LOWER CABLE - INCL DIPS N LICENSEE CA ATT. (one strand)	Transfer	21 0	FROM 20 1	1	YES	NO	\$242.70
624	54	SYKES	21B - EACH ADDITIONAL TRF/MOVE/RAISE/LOWER CABLE - INCL DIPS N LIC CA ATT. (per strand same pole)	Transfer	20 0	FROM 18 11	1	YES	NO	\$91.42
624	54	SYKES	33 - SITE PROTECTION (POLICE/TRAFFIC CONTROL)	Other		PROTECTION	4	NO	NO	\$210.00
624	54	SYKES	35 - CUT AND KICK POLE - ALL SIZES - IN ADDITION TO PLACE AND REMOVE POLE	Other		C+K	1	YES	NO	\$225.75