VERIZON PENNSYLVANIA LLC AND
VERIZON NORTH LLC

V.

METROPOLITAN EDISON COMPANY,
PENNSYLVANIA ELECTRIC COMPANY
AND PENN POWER COMPANY

DOCKET NO. C-2020-3019347

VERIZON PENNSYLVANIA LLC
AND VERIZON NORTH LLC

STATEMENT NO. 2.1

(SURREBUTTAL TESTIMONY)

WITNESS: Mark S. Calnon

DATED: June 18, 2020

PUBLIC VERSION

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I. INTRODUCTION

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

A. My name is Mark S. Calnon. I am a senior consultant on economic and regulatory policy supporting Verizon's Network Operations & Engineering Group. My business address is One Verizon Way, Basking Ridge, NJ 07920.

Q. Did you submit direct testimony in this case?

A. Yes. I submitted direct testimony in this case on April 21, 2020.

Q. On whose behalf are you submitting this surrebuttal testimony?

A. I am submitting this surrebuttal testimony on behalf of Verizon Pennsylvania LLC ("Verizon PA") and Verizon North LLC ("Verizon North") (collectively, "Verizon").

Q. What is the purpose of your surrebuttal testimony?

A. The purpose of my surrebuttal testimony is to respond to allegations in the rebuttal testimony submitted by witnesses for the Pennsylvania operating subsidiaries of FirstEnergy Corp. known as Metropolitan Edison Company ("Met-Ed"), Pennsylvania Electric Company ("Penelec"), and Pennsylvania Power Company ("Penn Power") (collectively, "FirstEnergy"). I will respond primarily to Mr. Schafer's incorrect rate calculations and his proposal to change the Commission's rate formulas, Mr. Zarakas's discussions of bargaining power and rate methodologies, and Ms. Savage's claims regarding the impact lawful rental rates could have on FirstEnergy's operating revenues.

Q. Are you sponsoring exhibits with your surrebuttal testimony?

A. Yes. I am sponsoring Verizon Exhibits MSC-3 through MSC-21.

Q. Please summarize your surrebuttal testimony.

A. In my surrebuttal testimony, I will first identify the just and reasonable rates that should apply to Verizon's use of FirstEnergy's poles under the Commission's regulations.[1] In particular, in Section II below, I will explain:

(A) the 2011 through 2019 new telecom rental rates in my direct testimony are the properly calculated new telecom rates under the Commission's new telecom rate formula;

(B) FirstEnergy does not provide Verizon a net material advantage under the joint use agreements as compared to FirstEnergy's license agreements with Verizon's competitors, so it should charge Verizon the same properly calculated new telecom rate guaranteed Verizon's competitors;

(C) the Commission does not need to calculate pre-existing telecom rates (also known as old telecom rates) because new telecom rates apply, but the 2011 through 2019 pre-existing telecom rental rates in my direct testimony are the properly calculated pre-existing telecom rates; and

(D) my overpayment calculations are correct and were not rebutted by FirstEnergy.

I will then address three arguments made by FirstEnergy witnesses who argue the Commission's rate formulas should not determine the just and reasonable rate in this case. In particular, in Section III below, I will explain:

(A) Mr. Schafer's request for "fully allocated" rates is an unwarranted request to allocate the same pole costs differently than the Commission decided to allocate pole costs when it adopted the new telecom rate formula;

(B) Verizon's payment of a competitively neutral new telecom rate will not materially harm FirstEnergy's retail electric customers in Pennsylvania; and

(C) the joint use agreement rates are not justified by FirstEnergy's claims about bargaining power.

[1] *See* 52 Pa. Code § 77.4(a) (adopting 47 C.F.R. §§ 1.1406(d), 1.1413(b)).

II. JUST AND REASONABLE RATES UNDER COMMISSION REGULATIONS

Q. Please summarize your testimony regarding the determination of a just and reasonable rate under the Commission's regulations.

A. In this section, I will focus on the rate regulations the Commission adopted at 52 Pa. Code § 77.4(a) for use in setting just and reasonable pole attachment rates for telecommunications providers, including Verizon. I detailed the regulations in my direct testimony and Exhibit MSC-1 thereto, where I explained how the proper application of the Commission's adopted rate formulas results in competitively neutral pole attachment rates among competing providers of telecommunications, video, broadband and other advanced services. These competing providers are typically referred to using their historic regulatory classifications, which include incumbent local exchange carrier ("ILEC"), competitive local exchange carrier ("CLEC"), and cable company.

Because of the historical development of pole attachment rate regulation, there are three Commission rate formulas. The "cable" rate formula was the first formula adopted. It sets the maximum rate for pole attachments by cable companies providing cable services. Using the FCC's default inputs, the cable rate covers about 7.4% of a pole owner's annual pole costs and was found fully compensatory by the Supreme Court and the FCC.[2] The second rate formula adopted was the "pre-existing" telecom rate formula—which is also referred to as the "old" telecom rate formula and the "pre-2011" telecom rate formula. It set the maximum rate for pole attachments by CLECs (including wireless providers) and cable companies providing telecommunications services before 2011,

[2] *Pole Attachment Order*, 26 FCC Rcd at 5297, 5321 (¶¶ 131 n.399, 183 n.569); *see also FCC v. Fla. Power Corp*., 480 U.S. 245, 253-54 (1987).

when the "new" telecom rate formula was adopted. The pre-existing telecom formula produced a rate about 1.51 times the cable rate for companies whose serving area includes urban areas (like the FirstEnergy entities here).[3] The FCC reduced the maximum rate that may be charged CLECs (including wireless providers) and cable companies in 2011 by adopting the new telecom rate formula, which produces a rate approximating the cable rate. As a result, since 2011, the maximum just and reasonable rate for CLECs and cable companies—whether set by the cable formula or the new telecom formula—has been about the same rate. The Commission adopted these formulas in its new regulations.[4]

The various rate formulas are implicated in this case because just and reasonable rates for ILECs are based on a principle of competitive neutrality. Under the regulations the Commission adopted, an ILEC is presumptively entitled to the same pole attachment rate guaranteed its competitors (*i.e*, the new telecom rate, which approximates the cable rate) if the ILEC attaches to an investor-owned utility's poles under a broadly defined set of joint use agreements.[5] If an investor-owned utility rebuts the presumption with clear and convincing evidence demonstrating that it provides the ILEC net benefits under a joint use agreement that materially advantage the ILEC as compared to the terms and conditions the utility provides the ILEC's competitors, it may charge a rate that accounts

[3] *See id.* at 5297 (¶ 131 n.399). The cable rate formula produces a rate that is about 7.4% of the annual cost of a pole using default inputs, while the pre-existing telecom formula produces a rate that is about 11.2% of the annual cost of a pole using default inputs. (11.2% / 7.4% = 1.51.)

[4] *See* 52 Pa. Code § 77.4(a); 47 C.F.R. § 1.1406(d).

[5] *See* 52 Pa. Code § 77.4(a); 47 C.F.R. § 1.1413(b).

for the value of the net material competitive benefits with the "pre-existing" or "old" telecom rate serving as a hard cap on the just and reasonable rate.[6]

In this section, I address the proper determination of just and reasonable rates under these regulations. In particular, I address Mr. Schafer's unfounded criticism of my properly calculated new telecom rates, explain why FirstEnergy's witnesses have not proven a rate higher than the new telecom rate is permitted under the standard of competitive neutrality, and reaffirm my calculation of Verizon's overpayments as compared to competitively neutral new telecom rates. I also address Mr. Schafer's unfounded criticism regarding my calculation of pre-existing telecom rates. I conclude that the proper per-pole rates for Verizon's use of FirstEnergy's poles for the 2011 to 2019 rental years are the following new telecom rates included in my direct testimony:[7]

New Telecom Rates for Verizon's Use of FirstEnergy's Poles (per pole)									
Rental Year	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**
Met-Ed poles	$8.29	$9.87	$10.07	$5.02	$9.35	$8.79	$9.55	$12.20	$13.83
Penelec poles	$6.43	$6.79	$7.18	$5.21	$6.96	$7.18	$7.49	$10.49	$9.07
Penn Power poles	$7.30	$8.47	$8.51	$8.21	$8.94	$9.40	$9.08	$11.18	$11.80

Q. Mr. Zarakas provides an overview of the history of pole attachment regulation. Do you agree with his overview?

A. I agree with aspects of it, but other aspects are misleading or wrong. Mr. Zarakas tends to make broad generic statements about topics he cannot know or "facts" that don't hold up against the record in this case. He claims to know, for example, why there was no federal regulation of pole attachments before 1978 and what the "primary motivation"

[6] *Third Report and Order*, 33 FCC Rcd at 7771 (¶ 129).

[7] *See* VZ Statement 2.0 at 4:10-11 (Calnon Direct Testimony).

was for companies entering joint use agreements even earlier than that, but he cites nothing to support his speculation. He also states joint use agreements were, without exception, entered when "telephone companies owned about the same number of poles as did electric utilities" and resulted "in roughly equal sharing of poles and costs."[8] I have not seen evidence either of these "facts" is true here or in other pole attachment complaints I've supported.[9]

There are also several errors in Mr. Zarakas's descriptions of the FCC rate formulas. For example, he says the cable rate formula does not cover costs associated with the unusable space on a pole,[10] but cable rates are calculated based on the total cost of a pole, with the cost of unusable space allocated to attaching entities "based on the portion of usable space occupied."[11] Mr. Zarakas describes the pre-existing telecom rate formula as producing rates "less than the rates that would have been produced under a fully allocated cost methodology,"[12] but the FCC described the formula as "based on a fully allocated cost methodology."[13] Mr. Zarakas also incorrectly contends the new telecom rate formula does not cover costs for unusable space[14] when the formula includes an input for

[8] FE Statement 2-R at 5:1-5 (Zarakas Rebuttal Testimony).

[9] *See, e.g.*, VZ Statement 1.1 at 61:7-13 (Mills Surrebuttal Testimony).

[10] *See, e.g.*, FE Statement 2-R at 5:18-19, 9:1-4, 9:19-20 (Zarakas Rebuttal Testimony).

[11] *RCN Telecom Servs. of Philadelphia, Inc. v. PECO Energy Co.*, 17 FCC Rcd 25238, 25240 (¶ 3) (2002).

[12] *See, e.g.*, FE Statement 2-R at 6:3-5, 9:5-11 (Zarakas Rebuttal Testimony).

[13] *Pole Attachment Order*, 26 FCC Rcd at 5300 (¶ 141).

[14] *See* FE Statement 2-R at 9:12-15, 19-20 (Zarakas Rebuttal Testimony).

unusable space and is based on the total cost for the pole.[15] He is also wrong when he says the carrying charge rate in the FCC formulas is based on an electric utility's "return on equity."[16] Instead, "the weighted average cost of debt and equity is the proper cost of capital figure."[17] These and similar errors undermine his rebuttal testimony about pole attachment rates under Commission regulations.

Q. Mr. Zarakas sponsored Exhibit WZ-1 titled "FCC Pole Attachment Rates Reference." Does Exhibit WZ-1 accurately summarize the FCC rate formulas?

A. No. Exhibit WZ-1 describes settled issues as though they remain open for discussion. The Exhibit does not summarize the FCC rate formulas the Commission adopted.

This is particularly apparent on the first page of Exhibit WZ-1. Mr. Zarakas says "space allocated to (non-ILEC) attachers is presumed to be 1'" under the FCC rate formulas. In fact, the FCC rate formulas are based on "space occupied"—not "space allocated"—and presume the average "space occupied" by a telecommunications provider, including an ILEC, is one foot.[18] Mr. Zarakas incorrectly limits "attachers" for purposes of calculating the FCC new and pre-existing telecom rates (which include an input for average number of attaching entities) to "non-owners (i.e., not electric utilities or ILECs)," an argument long ago rejected.[19] And, in perhaps his most glaring misstatement, he says allocation of

[15] *See* 47 C.F.R. § 1.1406(d)(2).

[16] FE Statement 2-R at 8:13 (Zarakas Rebuttal Testimony).

[17] *Multimedia Cablevision, Inc. v. Sw. Bell Tel. Co.*, 11 FCC Rcd 11202, 11215 (¶ 36) (1996).

[18] *See* 47 C.F.R. § 1.1410 (space occupied presumption); *see also* 47 C.F.R. § 1.1402(b) (defining presumption to include use of poles by "provider[s] of telecommunications services").

[19] *See, e.g.*, *In Re Amendment of Commission's Rules & Policies Governing Pole Attachments*, 16 FCC Rcd 12103, 12134 (¶ 60) (2001) ("We also find unpersuasive arguments that the non-telecommunications utility pole owner should not be included as an attaching entity.").

the costs of unusable pole space is a "contentious issue" for which there are several "[o]ptions." But there are no "options." The Commission decided to allocate the unusable space the same way Congress and the FCC require.[20]

There are errors on the subsequent pages of Exhibit WZ-1 as well. On several pages, Mr. Zarakas repeats his incorrect description about unusable space allocations under the rate formulas. He also provides an inaccurate and incomplete description of the "applicable rate of return" on page 2. He says the "initial default" was set at 11.25%. This was true, but only for poles owned by ILECs, and only prior to July 1, 2016.[21] The default for poles owned by rate-of-return regulated electric utilities—including FirstEnergy—is the electric utility's actual "weighted average cost of debt and equity."[22]

To assist the Commission, I prepared a correct reference guide about the Commission's adopted FCC rate formulas, which is attached as Exhibit MSC-3.

A. The New Telecom Rates in My Direct Testimony Are the Correctly Calculated New Telecom Rates.

Q. Did you review Mr. Schafer's criticism of the new telecom rates you calculated and provided in your direct testimony?

A. Yes, although I note Mr. Schafer only identified specific concerns with my calculation of the new telecom rate for Verizon's use of Penelec's poles for the 2019 rental year (calculated using year-end 2018 data) and did not cite Commission regulations or orders

[20] *See, e.g.*, 52 Pa. Code § 77.4(a) (incorporating 47 U.S.C. § 224 and 47 C.F.R. Chapter I, Subchapter A, Part 1, Subpart J); 47 U.S.C. § 224(e)(2); 47 C.F.R. § 1.1409(a).

[21] *See, e.g.*, *In the Matter of Connect Am. Fund*, 31 FCC Rcd 3087, 3093, 3212 (¶¶ 10, 326) (2016).

[22] *Multimedia Cablevision, Inc.*, 11 FCC Rcd at 11215 (¶ 36).

to support his position.[23] Mr. Schafer said the issues he identified "seem to have been repeated" in my other calculations, which cover the 2011 to 2019 rental years,[24] but rates are company-specific and year-specific under the Commission's rate formulas. Mr. Schaefer's generalized and unsupported criticism lacks merit.

Q. Did the manner in which Mr. Schafer criticized your new telecom rate calculations complicate your review?

Yes. As noted, Mr. Schafer generically stated I should have used certain numerical values when calculating new telecom rates, but cited only the company-specific and year-specific values he prefers for the 2019 new telecom rate for use of Penelec's poles.[25] Mr. Schafer also did not provide calculations to support the new telecom rates he says should apply in Tables 1 to 3 of his rebuttal testimony.[26] Further complicating matters, Mr. Schafer says *different* new telecom rates should apply than the new telecom rates FirstEnergy advocated for a few months ago in its Answer.[27] For example, Mr. Schafer's Table 2 says the 2019 new telecom rate for Verizon's use of Penelec's poles (using year-end 2018 data) is $8.63 per pole.[28] FirstEnergy's Answer says the same rate should be

[23] FE Statement 1-R at 19:12-20:26 (Schafer Rebuttal Testimony).

[24] *Id.* at 19:12-20:1.

[25] *Id.* at 20:9, 18-20 (stating the "correct pole count is 528,755" and the "proper rate of return … is 7.92%"); *see also* Answer Attachment G at FE00090 (calculating rates for use of Met-Ed's poles using pole count of [redacted] and rate of return of [redacted]), FE00100 (calculating rates for use of Penn Power's poles using pole count of [redacted] and rate of return of [redacted]).

[26] *See* FE Statement 1-R at 16:5-17:2, Tables 1-3 (Schafer Rebuttal Testimony).

[27] *See* Answer Attachment G; *see also* FE Statement 1-R at 20:1-2, 21:15-17 (Schafer Rebuttal Testimony) (relying on Answer Attachment G).

[28] FE Statement 1-R at 16:8 (Schafer Rebuttal Testimony).

$8.53 per pole.[29] I have since received and reviewed Mr. Schafer's calculations of the new telecom rates in Tables 1 to 3 in discovery and am sponsoring exhibits which excerpt the relevant calculations.[30]

Q. Was Mr. Schafer's incomplete rate analysis a surprise?

Yes. Mr. Schafer repeated verbatim the incomplete rate analysis in FirstEnergy's Answer,[31] even though I detailed the reasons why the analysis was insufficient in a Reply Affidavit filed at the FCC on March 3, 2020. In addition, FirstEnergy should have calculated new telecom rates for Verizon's competitors years ago because the new telecom rate is the maximum rate FirstEnergy may charge CLECs and cable companies providing telecommunications services.[32] I learned in discovery FirstEnergy did perform new telecom rate calculations at least as far back as the 2014 rental year,[33] although it charged some of Verizon's competitors rates much higher than the maximum rate it calculated under the new telecom formula.[34]

[29] Answer Attachment G at FE00097.

[30] Ex. MSC-7 (Response to Verizon Interrogatory Set III, No. 21). The relevant excerpts of Mr. Schafer's spreadsheets, which show his new and pre-existing telecom rate calculations, can be found at Exs. MSC-8 (Met-Ed Table 1 new and old telecom rate calculations), MSC-9 (Penelec Table 2 new and old telecom rate calculations), and MSC-10 (Penn Power Table 3 new and old telecom rate calculations).

[31] *See* Answer ¶ 105; VZ Statement 1-R at 19:12-20:25 (Schafer Rebuttal Testimony).

[32] *See* 52 Pa. Code § 77.4(a); 47 C.F.R. § 1.1406(d).

[33] Ex. MSC-11 (Response to Verizon Interrogatory Set II, No. 15). Relevant excerpts of FirstEnergy's rate calculations for CLECs and cable companies are included in Exhibits MSC-12 (Met-Ed rate calculations), MSC-13 (Penelec rate calculations), and MSC-14 (Penn Power rate calculations).

[34] *See, e.g.*, Answer ¶ 101.

Q. Are the new telecom rates in Mr. Schafer's rebuttal testimony the same new telecom rates FirstEnergy calculated for Verizon's competitors?

A. No. Mr. Schafer calculated different new telecom rates for Verizon than FirstEnergy calculated for Verizon's competitors. This also adds unnecessary complexity to the case. Mr. Schafer admits the "sources of data and the mathematical formulas" required under Commission's regulations "are quite prescriptive,"[35] but the rates he and others at FirstEnergy purport to calculate under the formulas are a moving target. For example, Mr. Schafer says the 2019 new telecom rate for Verizon's use of Met-Ed's poles (using year-end 2018 data) is $13.67 per pole,[36] FirstEnergy's Answer says it is [redacted] per pole,[37] and FirstEnergy's pre-litigation calculation of the rate for Verizon's competitors says it is [redacted] per pole.[38]

FirstEnergy's calculation of different rates for use of the same poles during the same rental year stems in part from FirstEnergy's calculation of different values for its annual pole cost and carrying charge for a particular rental year. These values should be constant when calculated by FirstEnergy. They are based on FirstEnergy's publicly reported year-end data, FirstEnergy's authorized rate of return, and FirstEnergy's total number of distribution poles. FirstEnergy should not reach different results when performing the same calculation with the same data. The following table shows the

[35] FE Statement 1-R at 21:15-17 (Schafer Rebuttal Testimony).

[36] *Id.* at 16:8.

[37] Answer Attachment G at FE00094.

[38] Ex. MSC-12 (Met-Ed rate calculations).

variation across FirstEnergy's pole cost and carrying charge calculations for the 2019 rental year (using year-end 2018 data):

Rental Year 2019 Using data from 2018	FirstEnergy's Calculation for CLECs	FirstEnergy's Answer	Mr. Schafer's Rebuttal Testimony
Verizon's Use of Met-Ed's Poles			
Net Investment per Distribution Pole	[redacted]		
Capital Carrying Charge Rate			
Annual Cost Per Pole			
Verizon's Use of Penelec's Poles			
Net Investment per Distribution Pole	[redacted]		
Capital Carrying Charge Rate			
Annual Cost Per Pole			
Verizon's Use of Penn Power's Poles			
Net Investment per Distribution Pole	[redacted]		
Capital Carrying Charge Rate			
Annual Cost Per Pole			

Mr. Schafer's rebuttal testimony thus reinforces the need for Commission oversight to ensure the new telecom rate methodology is properly and uniformly applied to ensure the competitively neutral rental rates the Commission found imperative.

Q. FirstEnergy has calculated many different new telecom rates, but how different are they from the new telecom rates you calculated?

A. For many rental years, the new telecom rates Mr. Schafer and I calculate are fairly similar—and far lower than the rates FirstEnergy has charged Verizon. The following table compares the rate FirstEnergy most recently charged Verizon, the 2019 new telecom rates Mr. Schafer included for Verizon in Tables 1 to 3, the 2019 new telecom rates FirstEnergy calculated before this litigation for CLECs, and my properly calculated 2019 new telecom rates:

Comparison of 2019 Per-Pole Rates	Met-Ed	Penelec	Penn Power
Agreement rate most-recently charged Verizon[39]	[redacted]		
Mr. Schafer's new telecom rate calculated for Verizon[40]	$13.67	$8.63	$13.18
FirstEnergy's new telecom rate calculated for CLECs[41]	[redacted]		
Properly calculated new telecom rate[42]	$13.83	$9.07	$11.80

Exhibit MSC-4 includes similar comparisons for the 2011 through 2018 rental years. They all show, even under FirstEnergy's own calculations, FirstEnergy demands Verizon pay two to three times the new telecom rate. The comparisons also confirm the reasonableness of the new telecom rates I calculated, as some are slightly higher than the rates Mr. Schafer calculated.

Q. Why would your new telecom rates be higher than new telecom rates Mr. Schafer calculated?

A. The difference primarily results from Mr. Schafer's use of data regarding pole height and other characteristics it had a contractor quickly collect after this litigation was filed. I disagree the data is sufficiently complete and reliable for use in calculating rates under Commission regulations for reasons I detail below, even if use of the data would reduce the new telecom rate for Verizon's use of FirstEnergy's poles. Although the Commission's rules allow for use of actual, verified data in place of default inputs,

[39] Ex. SCM-8 (Joint Statement). This comparison uses the reciprocal rate equivalent to the rate charged by Met-Ed. *Id.*

[40] FE Statement 1-R at 16:5-17:2.

[41] Ex. MSC-12 (Met-Ed rate calculations); Ex. MSC-13 (Penelec rate calculations); Ex. MSC-14 (Penn Power rate calculations).

[42] Ex. MSC-1 at VZ00067, VZ00077, VZ00087 (Calnon Aff., Exs. C-1, C-2, C-3).

FirstEnergy's limited, flawed, and skewed data set is insufficient to rebut the formula's presumptions and substitute for the default inputs required by the regulations.

Q. What are the principal differences between your new telecom rate calculations and Mr. Schafer's?

A. The five main differences involve the inputs used for total distribution pole counts, appurtenance factor, net vs. gross allocation of values reported on a total company basis, rate of return, and calculation of the space factor.

Q. Please explain the total distribution pole count input.

A. The new telecom rate formula has two basic components: (1) the annual cost of pole ownership and (2) the percentage of the annual cost assigned to an attaching party.[43] The annual cost component requires the calculation of the utility's relevant investment on a per pole level.[44] Its total number of distribution poles is used to convert the total relevant investment to the per-pole amount.

Q. Why is your distribution pole count input appropriate?

A. I used the total distribution pole counts Mr. Schafer provided in May 2018.[45] Mr. Schafer uses total distribution pole count inputs that vary over time, but not significantly. My use of the values Mr. Schafer previously provided for rental year 2017 is appropriate and conservative because Mr. Schafer's inputs are generally higher. For example, I use

[43] *See* 52 Pa. Code § 77.4(a); 47 C.F.R. § 1.406(d).

[44] *See, e.g.*, *In the Matter of Amendment of Commission's Rules and Policies Governing Pole Attachments; Implementation of Section 703(e) of the Telecommunications Act of 1996*, Consolidated Partial Order on Reconsideration, 16 FCC Rcd 12103, 12121 (¶ 27) (2001) ("*Consolidated Partial Order*").).

[45] Ex. SCM-5 at VZ00657 (FCC Ex. 28).

345,441 total distribution poles when calculating rates for use of Met-Ed's poles and Mr. Schafer uses varying numbers that average 346,090. Because relevant investment is divided by total distribution poles, my use of a lower value for total distribution poles results in a higher net investment per pole and a higher new telecom rental rate for use of Met-Ed's poles. My input is therefore conservative and generally favors FirstEnergy by increasing the resulting new telecom rate Verizon would pay FirstEnergy.

Q. Please explain the role of the "appurtenance factor" in the new telecom formula.

A. New telecom rates are based on an electric utility's investment in its poles, but the relevant FERC account (Account 364) also includes non-pole related investment.[46] The appurtenance factor is an adjustment to the utility's total investment in Account 364 to "eliminate the investment in crossarms and other non-pole related items."[47] The non-pole related investment (and thus the appurtenance factor) is presumed to be 15 percent for electric utilities.[48]

Q. Why is your appurtenance factor input appropriate?

A. I use the default 15 percent appurtenance factor. Mr. Schafer uses appurtenance factors ranging from about 11 percent to about 15 percent.[49] Mr. Schafer did not provide data to

[46] *See* 18 C.F.R. § Pt. 101 (Account 364 "shall include the cost installed of poles, towers, and appurtenant fixtures used for supporting overhead distribution conductors and service wires.").

[47] *Consolidated Partial Order*, 16 FCC Rcd at 12122 (¶ 32).

[48] *Id.*; *see also Amendment of Rules & Policies Governing the Attachment of Cable Television Hardware to Util. Poles*, Report and Order, 2 FCC Rcd 4387 ¶¶ 10-19 (1987) ("In our formula …, we adjusted the net pole investment by 15 percent to eliminate the investment in crossarms and other non-pole related items…. [We] retain the 15 percent figure for electric utilities.").

[49] Mr. Schafer's calculations show the appurtenance factor as a percentage of investment used in the calculation, instead of the percentage removed from the calculation. For example, Mr.

support these departures from the Commission's presumption, and the FCC requires "probative, direct evidence on the actual investment in non-pole-related appurtenances" to use a value different from the 15 percent default.[50] Information FirstEnergy produced in discovery also did not support a departure from the default value because FirstEnergy either 1) did not produce an appurtenance factor calculation for a rental year, 2) calculated an appurtenance factor based on a total investment amount that did not match its reported total investment in Account 364, or 3) noted its reported total investment in Account 364, but calculated the appurtenance factor based on a lesser amount. The default 15 percent presumption is the correct input in this case.

Q. Please explain the issue related to the allocation of total company values.

A. The cost component of the new telecom formula requires the calculation of the net investment per distribution pole and a carrying charge rate. These calculations include accounts for accumulated deferred taxes (plant) and accumulated deferred taxes (income).[51] Electric utilities report these values on a total company basis, and the total company amounts must be allocated to reflect the amount associated with distribution poles.[52] I completed this allocation using a net method and Mr. Schafer used a gross method. The Commission's regulations do not require one approach or the other,

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Schafer uses a [redacted] value when calculating rates for use of Met-Ed's poles using year-end 2010 data, which is equivalent to a [redacted] appurtenance factor [redacted]. *See* Ex. MSC-8 (Met-Ed Table 1 new and old telecom rate calculations).

[50] *Amendment of Rules & Policies Governing the Attachment of Cable Television Hardware to Util. Poles*, Report and Order, 2 FCC Rcd at 4390 (¶ 19).

[51] *See e.g.*, *Consolidated Partial Order*, 16 FCC Rcd at 12176 (App. E-2).

[52] *See, e.g., id.* at 12156 (¶ 109) ("Accumulated Deferred Income Taxes represents the share of composite FERC Accounts 190, 281, 282 and 283 that corresponds to Account 364.").

although economic relationships are typically expressed on a net basis. The difference between the two approaches has a minimal impact on the resulting rate,[53] confirming the reasonableness of my approach.

Q. Please explain the rate of return input to the new telecom formula.

A. The carrying charge rate includes the utility's rate of return "so that the utility is fully compensated for the capital investment that is being used by the attacher."[54] The correct rate of return for an electric utility is its current "weighted average cost of debt and equity."[55] This value "provides the best estimate of the costs incurred by a utility in attracting capital, including that invested in poles and conduit."[56] Using a higher value than an electric utility actually incurs artificially increases the resulting rental rate and allows the electric utility to over-recover.

Q. Why are the rate of return inputs you used correct?

A. I used rate of return values based on the most current information available to me, considering FirstEnergy's 2014 and 2016 rate cases.[57] Mr. Schafer instead calculates rates for all rental years using outdated rates of return set in 2007 for Met-Ed (7.53%) and Penelec (7.92%) and in 1988 and potentially earlier for Penn Power (11.14% and

[53] VZ Statement 3.1 at 34:2-17 (Tardiff Surrebuttal Testimony).

[54] *See, e.g.*, *Consolidated Partial Order*, 16 FCC Rcd at 12161 (¶ 120).

[55] *Multimedia Cablevision*, 11 FCC Rcd at 11215 (¶ 36).

[56] *Id.*

[57] *See* Ex. MSC-1 at VZ00088-90 (Calnon Aff., Ex. C-4).

[redacted]).[58] He describes these outdated values as the rates of return "most recently approved by the PaPUC."[59] It therefore appears Mr. Schafer is hiding behind the "black box" confidential settlement of those proceedings to try to avoid an update to the rate of return used in FirstEnergy's rate calculations. This would inappropriately allow FirstEnergy to recover at a higher rate of return on its poles than has been authorized in its rate proceedings, even if the results of the rate proceedings are not published. This is incorrect because the proper rate of return is FirstEnergy's current "weighted average cost of capital, both debt and equity," even if the value is "no longer announce[d]" by the PaPUC in a published decision.[60]

Q. Is there a significant difference between the rates of return you and Mr. Schafer use in your calculations?

A. Not with respect to use of poles owned by Met-Ed and Penelec. Mr. Schafer and I use the same rate of return when calculating 2011 through 2014 rates for use of Met-Ed's and Penelec's poles. We also use similar values for the later years. For example, I calculated a 7.45% rate of return for use of Met-Ed's poles for the 2019 rental year and Mr. Schafer

[58] Mr. Schafer does not provide a source for the [redacted] rate of return used in his 2011-2013 Penn Power rate calculations. Mr. Schafer also says "[i]t is unclear how Verizon determined the rate of return," but I have explained my rate of return calculations on several occasions. *See* Compl. Ex. B at VZ00040, VZ00089 (Calnon Aff. ¶ 12 & Ex. C-4); Compl. Exs. 36-43 at VZ00710-809; Statement 2.0 at VZ00040, VZ00089 (Calnon Aff. ¶ 12 & Ex. C-4); Ex. MSC-2 (FCC Exs. 36-43).

[59] FE Statement 1-R at 20:18-20 (Schafer Rebuttal Testimony).

[60] *See Multimedia Cablevision, Inc.*, 11 FCC Rcd at 11215 (¶ 36).

claims it should be 7.53%, and I calculated a 7.66% rate of return for use of Penelec's poles for the 2019 rental year and Mr. Schafer claims it should be 7.92%.[61]

In contrast, we use materially different rates of return for use of Penn Power's poles for all rental years except 2013 and 2014. For 2011 and 2012, Mr. Schafer uses a [redacted] rate of return, which is higher than the 11.14% rate of return set for Penn Power in 1988 and has no apparent source.[62] For 2013 and 2014, we both used the 11.14% rate of return set in 1988. But for 2015 through 2019, Mr. Schafer continues to use the outdated 11.14% rate of return despite Penn Power's 2014 and 2016 rate cases. In contrast, I use an 8.01% rate of return for 2015 and 2016 and a 7.72% rate of return for 2017 to 2019 based on available data about the 2014 and 2016 cases.[63]

Q. Does Mr. Schafer provide an economic reason for continued use of outdated rates of return when calculating pole attachment rates?

No. Mr. Schafer presents no economic or financial justification for his continued use of outdated rates of return, including the 31-year-old rate of return for Penn Power. Under Mr. Schafer's proposal, Penn Power would receive a premium of 48% over Met-Ed and 41% over Penelec, in contrast to more contemporaneous materials showing the rates of return for the three companies as relatively comparable. For example, in 2016 rate cases, Penn Power requested an 8.7% rate of return, Met-Ed requested an 8.14% rate of return,

[61] *Compare* Ex. MSC-1 at VZ00089 (Calnon Aff., Ex. C-4) *with* Ex. MSC-8 (Met-Ed Table 1 new and old telecom rate calculations); Ex. MSC-9 (Penelec Table 2 new and old telecom rate calculations).

[62] *See* Ex. MSC-2 at VZ00747 (FCC Ex. 37).

[63] *Compare* Ex. MSC-1 at VZ00089 (Calnon Aff., Ex. C-4) *with* Ex. MSC-10 (Penn Power Table 3 new and old telecom rate calculations).

and Penelec requested an 8.58% rate of return.[64] Had these requested rates of return been authorized, Penn Power would have received a premium of less than 7% over Met-Ed and a premium of just over 1% as compared to Penelec. Penn Power's 2016 request also shows the unreasonableness of its use of an 11.14% rate of return, as Penn Power *requested* an 8.7% rate of return that is 22% lower than the 11.14% rate of return authorized in 1988 and used in FirstEnergy's 2019 rate calculations.[65] Mr. Schafer's approach ignores that a company's rate of return and, in particular, its cost of equity component, "is not fixed and is subject to fluctuation because of changing national economic and financial conditions, the market's current view of the sector, and the condition of the utility itself."[66] Using inflated and outdated rates of return is contrary to the Commission's cost-based rental rate formula.

Q. Please explain the disagreement regarding appropriate inputs for calculating the space factor.

A. The space factor determines the percentage of a utility's annual pole cost assigned to an attaching party, which reflects the direct space occupied by the attaching party and a share of the unusable space on the pole.[67] The presumptions are in the regulations the

[64] *See* Ex. MSC-1 at VZ00090 (Calnon Aff., Ex. C-4); *see also* Ex. MSC-2 at VZ00780, VZ00790, VZ00800 (FCC Exs. 40-42).

[65] *See* Ex. MSC-2 (FCC Ex. 42).

[66] *See* A Guide to Utility Ratemaking (2018 ed.) at 130, *available at* http://www.puc.state.pa.us/General/publications_reports/pdf/Ratemaking_Guide2018.pdf.

[67] *See* 52 Pa. Code § 77.4(a); 47 C.F.R. § 1.1406(d).

Commission adopted,[68] and are intended to provide "predictability, efficiency and fairness" when determining a just and reasonable rate.[69]

When calculating new telecom rates for all rental years (2011-2019), I used the presumptive inputs—average pole height (37.5 feet), unusable space (24 feet), usable space (13.5 feet), space occupied by Verizon (1 foot), and average number of attaching entities (5). Mr. Schafer instead used values hastily collected for litigation purposes *after* Verizon filed its Complaint from [redacted] or fewer FirstEnergy poles in Pennsylvania and Maryland.[70]

Q. Why do you say [redacted] *or fewer* FirstEnergy poles?

A. FirstEnergy's documents include inconsistent pole counts associated with the field review without explaining the inconsistencies. FirstEnergy's contractor, Mr. Guo of Precision Consulting, stated [redacted].[71] FirstEnergy's field contractor, Mr. Carlin of Davey Resource Group, then stated his team would "visit each of 1,519 poles owned by FirstEnergy" and "each of 1,519 poles owned by Verizon" as "provided as a source

[68] *See* 52 Pa. Code § 77.4(a); 47 C.F.R. §§ 1.1409, 1.1410.

[69] *See In the Matter of Implementation of Section 703(e) of the Telecommunications Act of 1996*, 13 FCC Rcd 6777 (¶ 74) (1998).

[70] *See* FE Statement 1-R at 22:3-23:6 (Schafer Rebuttal Testimony); *see also* FE Statement 6-R at 3:13-14 (Carlin Rebuttal Testimony) (stating data was collected from "December 2019 to January 2020").

[71] FE Statement 7-R at FE00158 (Guo Rebuttal Testimony, Ex. CG-1, Table 2).

material by FirstEnergy @95%."[72] Mr. Guo then reported some results about [redacted] FirstEnergy poles, some results about [redacted] FirstEnergy poles, some results about [redacted] Verizon poles, and some results about [redacted] Verizon poles.[73] FirstEnergy thus seeks to rebut the Commission's presumptive space factor inputs with information about, at most, [redacted] FirstEnergy poles in Pennsylvania and Maryland without explanation for its reliance on a smaller set of poles than was recommended for review.[74]

Q. Did FirstEnergy present sufficiently reliable or credible data to rebut the presumptive inputs?

A. No. As an initial matter, the information is not contemporaneous to the years in which Mr. Schafer calculates rental rates. The field review was "conducted from December 2019 to January 2020,"[75] but Mr. Schafer uses this information—gathered in 2020—to retroactively calculate rates for the 2011 through 2019 rental years.[76] Communications networks are dynamic and FirstEnergy did not have data about its poles (their height, average number of attaching entities, space occupied by Verizon, etc.) during the 2011

[72] FE Statement 6-R at FE00134 (Carlin Rebuttal Testimony, Ex. SC-1).

[73] FE Statement 7-R at FE00163-164, 166-167 (Guo Rebuttal Testimony, Ex. CG-1, Tables 3, 4).

[74] FirstEnergy included areas of Maryland in its field review because of a related dispute between the parties' affiliates, Verizon Maryland and The Potomac Edison Company, pending at the FCC. For ease of reference, when discussing the field review, I will refer to the two Verizon parties here (Verizon Pennsylvania and Verizon North) and the non-party (Verizon Maryland) as "Verizon" and to the four FirstEnergy operating companies (Met-Ed, Penelec, Penn Power, and Potomac Edison) as "FirstEnergy."

[75] FE Statement 6-R at 3:4-5 (Carlin Rebuttal Testimony).

[76] Ex. MSC-8 (Met-Ed Table 1 new and old telecom rate calculations); Ex. MSC-9 (Penelec Table 2 new and old telecom rate calculations), Ex. MSC-10 (Penn Power Table 3 new and old telecom rate calculations).

through 2019 rental years. Rates for those years, like rates FirstEnergy calculated for Verizon's competitors before this litigation was filed, must be based on the presumptive inputs.[77]

Q. Is FirstEnergy's data sufficiently reliable or credible data for use in calculating rates for future rental years?

A. No. FirstEnergy's witnesses provide only a very high-level summary of work performed and results alleged.[78] This is improper because the "survey should be submitted."[79] Verizon reminded FirstEnergy of this requirement in March,[80] but FirstEnergy still chose not to submit the data with its rebuttal testimony. FirstEnergy ultimately produced the data in response to Verizon's discovery requests, and it confirmed FirstEnergy's litigation-motivated field review has significant underlying flaws rendering it unreliable and invalid for use in setting rental rates.

Q. What is one flaw with FirstEnergy's field review?

A. FirstEnergy did not review only the poles for which rental rates are being set. In addition to collecting data about poles in Maryland,[81] it selected poles for the field review using a database with a materially greater number of poles than are covered by FirstEnergy's rental invoices. The parties agree the most recent rental invoices cover 513,595 poles in

[77] *See, e.g.*, Ex. MSC-12 (Met-Ed rate calculations); Ex. MSC-13 (Penelec rate calculations); Ex. MSC-14 (Penn Power rate calculations).

[78] *See* FE Statement 6-R (Carlin Rebuttal Testimony); FE Statement 7-R (Guo Rebuttal Testimony).

[79] *Teleport Commc'ns Atlanta, Inc. v. Ga. Power Co.*, 17 FCC Rcd 19859, 19865-66 (¶¶ 16, 18) (2002).

[80] *See* Reply Legal Analysis at 48 (Mar. 3, 2020).

[81] *See* FE Statement 6-R at 10-11 (Carlin Rebuttal Testimony).

Pennsylvania and Maryland,[82] but FirstEnergy's contractor selected poles from a set of [redacted].[83] The parties also agree the most recent rental invoices cover 381,118 FirstEnergy poles and 132,477 Verizon poles in Pennsylvania and Maryland.[84] FirstEnergy's contractor, however, selected poles from a set of [redacted] FirstEnergy poles and [redacted] Verizon poles in Pennsylvania and Maryland.[85]

Q. Did this flaw exist at the operating company level as well?

A. Yes. The following table compares the company-specific invoiced numbers with the number of poles used by FirstEnergy's contractor to select poles for the field review:[86]

	FirstEnergy Joint Use Pole Counts			Verizon Joint Use Pole Counts		
	Invoice	Guo Ex. CG-1	Difference	Invoice	Guo Ex. CG-1	Difference
Met-Ed (MED)	129,421	[redacted]		30,027	[redacted]	
Penelec (PND)	146,859			73,400		
Penn Power (PPD)	25,574			7,416		
Potomac Edison (PED)	79,264			21,634		
Total	381,118			132,477		

[82] *See* Ex. SCM-8 (Joint Statement ¶ 4) (agreeing 2018 invoices cover 412,697 poles jointly used in Pennsylvania); Ex. SCM-9 (MD Joint Statement ¶ 4) (agreeing 2019 invoice covers 100,898 poles jointly used in Maryland).

[83] FE Statement 7-R at FE00155 (Guo Rebuttal Testimony, Ex. CG-1).

[84] *See* Ex. SCM-8 (Joint Statement ¶ 4) (agreeing 2018 invoices cover 301,854 poles owned by FirstEnergy and 110,843 poles owned by Verizon in Pennsylvania); Ex. SCM-9 (MD Joint Statement ¶ 4) (agreeing 2019 invoice covers 79,264 poles owned by The Potomac Edison Company and 21,634 poles owned by Verizon Maryland in Maryland).

[85] FE Statement 7-R at FE00155 (Guo Rebuttal Testimony, Ex. CG-1).

[86] *Compare* Ex. SCM-8 (Joint Statement ¶ 4) and SCM-9 (MD Joint Statement ¶ 4) *with* FE Statement 7-R at FE00155 (Guo Rebuttal Testimony, Ex. CG-1).

This means on a total basis, [redacted] of the FirstEnergy poles and [redacted] of the Verizon poles used to determine the set of about [redacted] poles for the field review were not poles subject to the invoices challenged in this litigation.[87] This failure to ensure the field review reflected only poles for which rates are being set renders the results of the study unusable for setting those rates.

Q. Using the number of jointly used poles from the most recent invoices, what percentage of the pole network was considered?

A. Mr. Guo reported results for, at most, [redacted] poles owned by FirstEnergy and [redacted] poles owned by Verizon in Pennsylvania and Maryland.[88] This means, at most, the results involve [redacted] of FirstEnergy's 381,118 joint use poles in Pennsylvania and Maryland and [redacted] of Verizon's 132,477 joint use poles in Pennsylvania and Maryland.[89]

[87] [redacted]. As explained above, the number of poles selected for the field review is not clear. FirstEnergy's contractor Precision Consulting [redacted], but FirstEnergy's field contractor Davey Resource Group defined the scope as including 3,038 poles and Precision Consulting reported information about, at most, [redacted] FirstEnergy poles and [redacted] Verizon poles ([redacted] poles). *See* FE Statement 6-R at FE00134 (Carlin Rebuttal Testimony, Ex. SC-1); FE Statement 7-R at FE00158, FE00163-164, FE00166-167 (Guo Rebuttal Testimony, Ex. CG-1, Tables 2-4).

[88] *See* FE Statement 7-R at FE00163-164, FE00166-167 (Guo Rebuttal Testimony, Tables 3 & 4).

[89] *See* Ex. SCM-8 (Joint Statement ¶ 4); Ex. SCM-9 (MD Joint Statement ¶ 4).

Q. Did the field review have other flaws?

A. Yes. Without explanation, FirstEnergy's contractor collected different information based on whether FirstEnergy or Verizon owned a pole.[90] FirstEnergy asked its contractor to record data in a spreadsheet containing Columns A through DC for poles owned by FirstEnergy, but limited the spreadsheet to Columns A through Z (with some columns left to be "populated by FirstEnergy") when a pole was owned by Verizon.[91] FirstEnergy's contractor thus collected an incomplete picture of the joint use network and avoided collecting at least one input (average number of attaching entities) that risked increasing rates FirstEnergy would pay to attach to Verizon's poles. I'll explain this further below.

Q. Are there other reasons why the reported results are unreliable?

A. Yes. The data collection standards produced inconsistent and unreliable results. For example, Mr. Schafer uses different values for unusable space than the Commission's presumption that unusable space averages 24 feet,[92] but FirstEnergy's contractor did not measure the unusable space. Instead, he "calculate[d] the unusable space as 10% final pole length + 2 feet + 18 feet of presumptive height above ground level."[93] Mr. Schafer also uses space occupied values for Verizon slightly higher than the Commission's presumption that Verizon occupies on average 1 foot of space,[94] but its contractor ensured that result by assuming Verizon always occupies at least 1 foot of space. He

[90] FE Statement 6-R at FE00134-135 (Carlin Rebuttal Testimony, Ex. SC-1).

[91] *Id.* at FE00135-137, FE00140-141.

[92] *See* 52 Pa. Code § 77.4(a); 47 C.F.R. § 1.1410.

[93] FE Statement 6-R at FE00134 (Carlin Rebuttal Testimony, Ex. SC-1).

[94] *See* 52 Pa. Code § 77.4(a); 47 C.F.R. § 1.1410.

explained Verizon was "deemed to occupy six (6) inches of clearance above its highest usable space attachment and six (6) inches below its lowest usable space attachment."[95]

Q. Are these the only reasons why the results are unreliable?

A. No. The results exclude significant numbers of FirstEnergy poles, while including most of the Verizon poles, without explanation. The following table compares the number of poles FirstEnergy included in the field review with the results Mr. Guo reported:[96]

FirstEnergy Poles			
	Poles in Field Review	Poles in Reported Results	Percent
Pole height and average number of attaching entities			
Met-Ed territory (MED)	[redacted]		
Penelec territory (PND)			
Penn Power territory (PPD)			
Potomac Edison territory (PED)			
Space occupied by Verizon and height of Verizon's lowest attachment			
Met-Ed territory (MED)	[redacted]		
Penelec territory (PND)			
Penn Power territory (PPD)			
Potomac Edison territory (PED)			

In contrast, Mr. Guo [redacted]:

[95] FE Statement 6-R at FE00135 (Carlin Rebuttal Testimony, Ex. SC-1).

[96] FE Statement 7-R at FE00158, FE00163-164 (Guo Rebuttal Testimony, Ex. CG-1, Tables 2 & 3).

Verizon Poles			
	Poles in Field Review	Poles in Reported Results	Percent
Pole height and space occupied by FirstEnergy			
Met-Ed territory (MED)	[redacted]		
Penelec territory (PND)			
Penn Power territory (PPD)			
Potomac Edison territory (PED)			
Space required by FirstEnergy			
Met-Ed territory (MED)	[redacted]		
Penelec territory (PND)			
Penn Power territory (PPD)			
Potomac Edison territory (PED)			

Q. Did Mr. Guo provide an explanation for this disparity?

A. He did not explain the disparity in his rebuttal testimony. There, he acknowledged [redacted]. [97] His explanation in discovery was no more illuminating, as he merely identified the problem: he received information with "missing or non-numerical data."[98]

Q. Did you review the data Mr. Guo relied upon?

A. Yes, but it raised additional concerns. For example, Mr. Guo provided an Excel spreadsheet used to compile his results, but it [redacted]

[97] FE Statement 7-R at FE00154 (Guo Rebuttal Testimony, Ex. CG-1).

[98] Ex. MSC-15 (Response to Verizon Interrogatory Set III, No. 19); Ex. MSC-16 (Response to Verizon Interrogatory Set III, No. 20).

[redacted]. The following table compares the number of poles reflected in the field review and Mr. Guo's results with the poles marked [redacted] in the spreadsheet:

FirstEnergy Poles			
	Poles in Field Review	Poles in Reported Results	Poles with [redacted]
Pole height			
Met-Ed territory (MED)	[redacted]		
Penelec territory (PND)			
Penn Power territory (PPD)			
Potomac Edison territory (PED)			
Average number of attaching entities			
Met-Ed territory (MED)	[redacted]		
Penelec territory (PND)			
Penn Power territory (PPD)			
Potomac Edison territory (PED)			

Q. Do you have additional concerns with Mr. Guo's compilation of results?

A. Yes. Mr. Guo did not include in his rebuttal testimony a discussion of routine review of the data to identify obvious errors, outliers or extreme values. He [redacted]

[redacted]

[redacted]

[redacted]

[redacted][99] This assumption is not well-founded. In addition to the errors identified above, a review of the summary data

[99] FE Statement 7-R at FE00160 (Guo Rebuttal Testimony, Ex. CG-1).

includes extreme values strongly suggesting mistakes in the data collected and results reported.[100]

Q. Were you correct to use the presumptive inputs when calculating the space factor?

A. Yes. The Commission's presumptive inputs must be used here because there is no accurate, comprehensive and reliable data about the parties' joint use poles.

Q. If Mr. Schafer used the Commission's presumptive inputs when calculating the space factor, what impact would it have on his new telecom rates?

A. Mr. Schafer would have calculated new telecom rates very similar to the rates I calculated, as shown in the following table which uses 2019 rates as an example:

Verizon's Use of Met-Ed's Poles		
Rental Year 2019 Using data from 2018	Schafer Inputs with Default Space Factor	Verizon Calculation
Space Factor	0.1120	0.1120
multiplied by		
Net Investment per Distribution Pole	[redacted]	$605.68
multiplied by		
Capital Carrying Charge Rate	[redacted]	30.89%
multiplied by		
Urbanized Service Area Cost Allocator	0.66	0.66
Equals		
New Telecom Rate: Met-Ed (per pole)	[redacted]	**$13.83**
Verizon's Use of Penelec's Poles		
Rental Year 2019 Using data from 2018	Schafer Inputs with Default Space Factor	Verizon Calculation
Space Factor	0.1120	0.1120
multiplied by		
Net Investment per Distribution Pole	[redacted]	$537.04
multiplied by		
Capital Carrying Charge Rate	[redacted]	22.86%
multiplied by		
Urbanized Service Area Cost Allocator	0.66	0.66
Equals		

[100] FE Statement 7-R at FE00163-164 (Guo Rebuttal Testimony, Ex. CG-1).

New Telecom Rate: Penelec (per pole)	[redacted]	**$9.07**
Verizon's Use of Penn Power's Poles		
Rental Year 2019 Using data from 2018	Schafer Inputs with Default Space Factor	Verizon Calculation
Space Factor	0.1120	0.1120
multiplied by		
Net Investment per Distribution Pole	[redacted]	$562.75
multiplied by		
Capital Carrying Charge Rate	[redacted][101]	28.37%
multiplied by		
Urbanized Service Area Cost Allocator	0.66	0.66
Equals		
New Telecom Rate: Penn Power (per pole)	[redacted]	$11.80

Q. Having reviewed the rebuttal testimony of FirstEnergy's witnesses, what are the properly calculated new telecom rates for Verizon's use of FirstEnergy's poles?

A. It remains my conclusion that a proper application of the FCC's new telecom rate formula produces the following per-pole new telecom rates for Verizon's use of FirstEnergy's poles for the 2011 to 2019 rental years:

New Telecom Rates for Verizon's Use of FirstEnergy's Poles (per pole)									
Rental Year	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**
Met-Ed poles	$8.29	$9.87	$10.07	$5.02	$9.35	$8.79	$9.55	$12.20	$13.83
Penelec poles	$6.43	$6.79	$7.18	$5.21	$6.96	$7.18	$7.49	$10.49	$9.07
Penn Power poles	$7.30	$8.47	$8.51	$8.21	$8.94	$9.40	$9.08	$11.18	$11.80

These are the same new telecom rates I included in my direct testimony.[102]

[101] FirstEnergy's carrying charge rate includes the inflated 11.14% rate of return I addressed above. If the rate of return is corrected to 7.72% in FirstEnergy's calculation, the resulting new telecom rate is [redacted] per pole.

[102] VZ Statement 2.0 at 4:8-14 (Calnon Direct Testimony); Ex. MSC-1 at VZ00058-87 (Calnon Aff., Exs. C-1, C-2, C-3).

B. FirstEnergy's Witnesses Have Not Identified a Net Material Competitive Advantage That Would Justify Charging Verizon a Rate Higher Than the New Telecom Rate.

Q. Mr. Schafer says the joint use agreements provide Verizon advantages that justify rates higher than the new telecom rate. Do you agree with his statement?

A. No. FirstEnergy's witnesses have not identified "advantages" that individually or collectively justify charging Verizon a rate higher than the new telecom rate. Their analysis also continues to have the foundational flaws I detailed in Exhibit MSC-1, is not supported by FirstEnergy's discovery responses, and is in many cases rebutted by FirstEnergy's abandonment of alleged but non-existent "advantages" FirstEnergy relied on during negotiations to try to force Verizon to agree to anti-competitive rates.

Q. What is a foundational flaw with FirstEnergy's analysis?

A. FirstEnergy's witnesses failed to account for disadvantages under the joint use agreements as compared to the terms and conditions that apply to Verizon's competitors. This is a significant problem because a proper analysis of competitive neutrality must consider both burdens and benefits associated with the use of FirstEnergy's poles. As the FCC explained, "[a] failure to weigh, and account for, the different rights and responsibilities in joint use agreements could lead to marketplace distortions."[103] Therefore, a proper calculation of a competitively neutral rental rate must consider the *net* difference between an ILEC and its competitors, accounting both for unique costs imposed on the ILEC and unique benefits given the ILEC, if any. FirstEnergy's witnesses did not account for the unique pole ownership costs increasing Verizon's costs

[103] *Pole Attachment Order*, 26 FCC Rcd at 5335 (¶ 216 n.654).

as compared to its competitors. They also did not factor in unique offsetting burdens imposed on Verizon under the joint use agreements.

Q. Please provide an example.

Mr. Schafer effectively admits Verizon has pole ownership responsibilities Verizon's competitors do not have, but ignores the associated costs when comparing Verizon with its competitors. Mr. Mills' direct testimony included data showing FirstEnergy required Verizon to incur the cost to replace 569 more poles and to complete 3,687 more transfers than Verizon required of FirstEnergy over about five years.[104] FirstEnergy could not impose similar pole replacement and transfer costs on Verizon's competitors because FirstEnergy's license agreements [redacted].[105] Except for 28 pole replacements, Mr. Schafer does not challenge Mr. Mills' data.[106] Yet Mr. Schafer claims Verizon's costs for this work were [redacted] when comparing Verizon with its competitors.[107]

[104] *See* Ex. SCM-1 at VZ00025-28 (Mills Aff. ¶¶ 57-61).

[105] *See, e.g.*, Ex. SCM-3 at VZ00507 (Bell Atlantic License, Art. IV(1a)) ("Licensee shall perform such work at its own expense except in cases where the cause is due solely to changes, improvements or renewal of Owner's facilities (*e.g.*, including but not limited to installation of a transformer, installation of a recloser or a rephasing of conductors)…. Licensee's expenses for such work shall be paid by Owner...").

[106] *See* FE Statement 1-R at 37:12-22 (Schafer Rebuttal Testimony).

[107] *See id.* at 32:16-33:25.

Q. Are there other flaws with the allegations of FirstEnergy's witnesses?

A. Yes. They ignore the materiality standard. Verizon should pay the same properly calculated new telecom rate as its competitors if the terms and conditions of its joint use agreements do "not provide a *material* advantage to [ILECs] relative to cable operators or telecommunications carriers"—even if "the terms and conditions of access are not the same."[108] FirstEnergy's witnesses do not argue materiality or explain how differences as trivial as taking a photograph of a utility pole are "material" under Commission regulations.

Q. Are there other overarching flaws with the allegations of FirstEnergy's witnesses?

A. Yes. They did not cite or quote a single term or condition in the joint use agreements or its license agreements when they allege Verizon is advantaged over its competitors. They did not even attach a license agreement. They attempt few quantifications, never try to justify the difference between the new and the pre-existing telecom rate based on the value of alleged benefits, and try to fault Verizon for FirstEnergy's lack of proof. Mr. Schafer even claims Verizon "failed to engage in an open and fair discovery process," which is absurd given the amount of discovery made available to FirstEnergy in this proceeding.[109] But Mr. Schafer's unfounded complaint is beside the point because FirstEnergy has all the relevant information it requires to prove an alleged material competitive advantage were one to exist. The Commission's standard looks to whether *FirstEnergy* provides Verizon "net benefits" under *FirstEnergy*'s joint use agreements

[108] *Pole Attachment Order*, 26 FCC Rcd at 5336 (¶ 217) (emphasis added).

[109] FE Statement 1-R at 5:6-7, 31:16-32:2 (Schafer Rebuttal Testimony).

with Verizon that "materially advantage [Verizon] over other telecommunications providers" that attach to the *FirstEnergy*'s poles under the terms and conditions of *FirstEnergy*'s license agreements.[110]

Q. Did you analyze the specific advantages alleged by FirstEnergy's witnesses?

A. Yes. The allegations are primarily in Mr. Schafer's rebuttal testimony, although Mr. Zarakas includes a generic claim that a joint use agreement is more advantageous than a license agreement.[111] His rebuttal testimony represents at least the third time someone at FirstEnergy has attempted to compile a list of the alleged advantages it provides Verizon under the joint use agreements, and the list continues to change as prior allegations fall flat. In my direct testimony, I explained why the list FirstEnergy provided in June 2018 did not identify a net material competitive advantage that justifies charging Verizon a rental rate higher than the properly calculated new telecom rate in my direct testimony.[112] FirstEnergy has effectively admitted it could not prove its June 2018 allegations,[113] although Mr. Schafer continues to allege without support or quantification that they are "advantages."[114] FirstEnergy relied on a different set of three alleged advantages in its

[110] *In the Matter of Accelerating Wireline Broadband Deployment*, Third Report and Order and Declaratory Ruling, 33 FCC Rcd 7705, 7770-71 (¶¶ 127-29) (2018) ("*Third Report and Order*"); *see also* 52 Pa. Code § 77.4(a); 47 C.F.R. § 1.1413(b).

[111] *See* FE Statement 1-R at 31:11-37:9 (Schafer Rebuttal Testimony); FE Statement 2-R at 31:1-32:7 (Zarakas Rebuttal Testimony).

[112] *See* Ex. MSC-1 at VZ00051-55 (Calnon Aff. ¶¶ 30-35); Ex. SCM-5 at VZ00690 (FCC Ex. 29).

[113] *See* VZ Statement 1.1 at 32:6-34 (Mills Surrebuttal Testimony).

[114] FE Statement 1-R at 31:16 n.5 (Schafer Rebuttal Testimony).

February 3, 2020 Answer, which Mr. Schafer has now recast and supplemented with additional meritless allegations.[115]

Q. Mr. Schafer says several alleged advantages individually and combined create a "speed to market" advantage for Verizon. Do you agree with his statement?

A. No. The underlying premise of Mr. Schafer's allegation is that Verizon deployed facilities before CLECs and cable companies existed. The historical development of the network is not a reason to continue charging Verizon far higher rates for use of comparable space today. Also underlying Mr. Schafer's allegation is a fact equally applicable to Verizon and its competitors—specifically, FirstEnergy installed a pole network tall enough to accommodate communications facilities in addition to electric facilities. This is not a competitive "advantage" because it is not uniquely enjoyed by Verizon. Verizon's competitors are also able attach facilities to FirstEnergy's poles, which FirstEnergy claims are over 40-feet tall and have only about three attaching entities.[116] The principle of competitive neutrality requires consideration of only those items that *uniquely* advantage or disadvantage Verizon as compared to its competitors, and the height of FirstEnergy's poles does not.

Q. Mr. Schafer presents an analysis that, he says, shows Verizon incurs fewer make-ready costs than its competitors. Does Mr. Schafer's analysis show this?

A. No. Mr. Schafer provides a flawed and misleading analysis comparing very different costs. With respect to Verizon, Mr. Schafer only counts make-ready costs when Verizon

[115] *See, e.g.*, FE Statement 1-R at 32:4-37:9 (Schafer Rebuttal Testimony).

[116] FE Statement 7-R at FE00161 (Guo Rebuttal Testimony, Ex. CG-1). The Commission presumes a 37.5-foot pole can hold FirstEnergy and 4 additional attachers. *See* 52 Pa. Code § 77.4(a); 47 C.F.R. §§ 1.1409(c), 1.1410.

pays them to FirstEnergy. But Verizon performs much of its own make-ready work and incurs the cost to complete that work directly. Verizon also incurs the cost to perform significant pole replacement and transfer work for FirstEnergy, as Mr. Mills' analysis shows.[117]

Verizon's competitors, in contrast, generally pay FirstEnergy to complete make-ready at cost.[118] This is a difference in how they incur costs, but it should not be a difference in the amount of cost incurred. Mr. Schafer's analysis, however, counts costs for Verizon's competitors irrespective of whether Verizon performs the same work at its own cost.[119] This approach effectively double charges Verizon for the same work—once when Verizon performs the services at its own expense and a second time through an increased rental rate—which is directly contrary to a principle of competitive neutrality.[120]

Mr. Schafer's analysis is also incorrect because he considers only attachers that paid FirstEnergy the *highest* make-ready costs during the last two years.[121] The FCC previously rejected this approach because it "omit[ted] the information needed to analyze whether, and, if so, the extent to which, Verizon has been advantaged relative to a typical

[117] *See* Ex. SCM-1 at VZ00025-27 (Mills Aff. ¶¶ 57-61).

[118] *See, e.g.*, Ex. SCM-11 at FE00268 (CLEC-5 License Agreement ¶ 4) ("Licensor shall provide Licensee with an estimate of the costs associated with preparing Licensor's poles for attachment by Licensee. Licensee shall pay the estimated costs or formally accept or reject such estimate within the time frame established by Licensor, which in no event shall be less than thirty (30) days from date of notice.").

[119] *See* VZ Statement 1.1 at 15:10-17:3 (Mills Surrebuttal Testimony).

[120] *Dominion Order*, 32 FCC Rcd at 3759 (¶ 18) ("Where Verizon performs a particular service itself and incurs costs comparable to its competitors in performing that service, … [an electric utility] may not 'embed in Verizon's rental rate costs that [the electric utility] does not incur.").

[121] FE Statement 1-R at 32:7-33:25 (Schafer Rebuttal Testimony); Ex. SFS-5.

competitor or an average of its competitors."[122] Mr. Schafer further inflated the results of his analysis by [redacted] of the licensees in its list, some of which [redacted] before the two-year study period. These new licensees are not typical of Verizon's competitors, which generally have more established networks. By including them in a straight average, Mr. Schafer significantly skewed the resulting calculation. For example, had Mr. Schafer calculated a *weighted* average of the [redacted] Met-Ed licensees with the highest make-ready costs, the result would have changed from the [redacted] Mr. Schafer cites to [redacted].[123] This value remains significantly inflated, but highlights just how flawed Mr. Schafer's analysis is. It is significantly inflated because even a weighted average does not account for make-ready required by more than [redacted] additional licensees. And Mr. Schafer's analysis shows some licensees with the "largest number of attachment applications during the past two years"—meaning they had the most rapid buildout during the last two years—paid the equivalent of [redacted] per pole.[124]

Q. Mr. Schafer alleges Verizon is advantaged because its competitors pay field audit costs every five years. Do you agree?

A. No. This allegation is misleading and inaccurate. FirstEnergy cannot identify when it last completed a field audit, so Verizon's competitors have *not* been subject to field audit

[122] *Verizon Va. v. Va. Elec. & Power Co*., 32 FCC Rcd 3750, 3759 (¶ 20) (EB 2017) ("*Dominion Order*").

[123] FE Statement 1-R at 33:2-3 (Schafer Rebuttal Testimony); Ex. SFS-5.

[124] Ex. SFS-5.

costs as Mr. Schafer alleges.[125] Mr. Schafer attempts to quantify the cost of a hypothetical future field audit based on an audit performed in Ohio, but field audits are not a one-price-fits-all option. And, at least in Pennsylvania, FirstEnergy claims that a future field audit will be optional for Verizon's competitors and completed at no cost to FirstEnergy. Rather, payment (if any) for the field audit will be to FirstEnergy's contractor, who will negotiate with Verizon's competitors to try to secure their participation and contribution to its cost.[126] There is no good reason for FirstEnergy to collect additional sums from Verizon based on the potential for a future audit that would be cost-free to FirstEnergy and optional for Verizon's competitors.

Q. Mr. Schafer alleges Verizon would be advantaged if it pays new telecom rates because FirstEnergy would still pay Verizon at rates set by the joint use agreements. Do you agree with his statement?

A. I was disappointed to see this allegation because it suggests Mr. Schafer has not read the pleadings and testimony in this case. Mr. Schafer says Verizon asked to pay new telecom rates "while retaining the benefit of charging FirstEnergy rates" calculated under the joint use agreements.[127] This is not true. Verizon has repeatedly represented that, when the just and reasonable rate for Verizon's use of FirstEnergy's poles is set, Verizon will

[125] *See* FE Statement 1-R at 35:9-17 (Schafer Rebuttal Testimony); Ex. SCM-18 (Response to Verizon Interrogatory Set II, No. 7); Ex. SCM-19 (Response to Verizon Interrogatory Set II, No. 24).

[126] *See* Ex. SCM-8 (Response to Verizon Interrogatory Set II, No. 7 & Attachment E thereto) (stating the contractor "will negotiate" with "attaching companies" for fees).

[127] FE Statement 1-R at 35:20-23 (Schafer Rebuttal Testimony). Mr. Schafer's claim is additionally odd because Met-Ed does not pay a rate for use of Verizon's poles under the joint use agreements.

charge FirstEnergy a proportional rate for its use of Verizon's poles.[128] To ensure this result, I calculated refunds of overpayments using proportional rates for Verizon and FirstEnergy—not new telecom rates for Verizon and joint use agreement rates for FirstEnergy as Mr. Schafer suggests.[129]

Q. Do you have additional comments about Mr. Schafer's alleged advantages?

A. Yes. Mr. Schafer includes a concluding statement which is unsupported and does not reflect the discussion that precedes it. In particular he states, "[o]f all of these benefits, it is indisputable that Verizon, at the very least, enjoys the benefits of: guaranteed access; reserved space; no permitting; no inspection; lowest space on the pole; and charging First Energy a fully allocated cost rate for attachments to its poles."[130] While Mr. Schafer raises several new concepts in this incorrect and unsupported allegation, he still does not identify anything FirstEnergy provides Verizon under the joint use agreements which sets Verizon at a net material competitive advantage.[131]

[128] *See, e.g.*, Complaint ¶ 62 (requesting refund of overpayment calculated using proportional new telecom rates for Verizon and FirstEnergy).

[129] *See, e.g.*, Ex. MSC-1 at VZ00047 (Calnon Aff. ¶ 25).

[130] FE Statement 1-R at 37:6-9 (Schafer Rebuttal Testimony).

[131] *See, e.g.*, VZ Statement 1.1 at 29:7-32:2 (Mills Surrebuttal Testimony).

For example, Verizon is not, in fact, "reserved space" on FirstEnergy's poles under the joint use agreements[132] or FCC precedent.[133] Verizon is also *disadvantaged* relative to its competitors with respect to pole access. As Mr. Zarakas explains, "ILECs 'have no statutory right to nondiscriminatory pole access under section 224(f)(1).'"[134] Verizon's competitors, in contrast, have an ongoing and statutorily-protected right of access to FirstEnergy's poles. This is a critical difference between Verizon and its competitors. Without a statutory right of access, Verizon is dependent on the joint use agreements, which FirstEnergy may terminate at any time. If FirstEnergy terminates the joint use agreements, Verizon would not be permitted to attach to new FirstEnergy pole lines, which would complicate and increase Verizon's deployment costs. It is self-evident this provides FirstEnergy significant leverage in its negotiations with Verizon, which it has used to perpetuate unreasonably high rental rates. Verizon is not advantaged, let alone provided a net material competitive advantage, that justifies charging Verizon a rate higher than the new telecom rate guaranteed Verizon's competitors.

[132] The Met-Ed joint use agreements do not include space allocations or reservations. The Penelec and Penn Power joint use agreements designate space as "telephone space" or "communications space," but do not reserve that space for Verizon's exclusive use. *See* Ex. SCM-2 at VZ00322 (Penelec Bell JUA, Art. II), VZ00348 (Penelec Contel JUA, Art. II), VZ00374 (Penelec GTE JUA, Art. II), VZ00438 (Penelec Quaker JUA, Art. II), VZ00474 (Penn Power JUA, Art. IX).

[133] *See* 52 Pa. Code § 77.4(a) (incorporating 47 U.S.C. § 224(f)); *In the Matter of Implementation of the Local Competition Provisions in the Telecommunications Act of 1996*, 11 FCC Rcd 15499, 16053 (¶ 1170) (1996) ("Permitting an incumbent LEC, for example, to reserve space for local exchange service … would favor the future needs of the incumbent LEC over the current needs of the new LEC. Section 224(f)(1) prohibits such discrimination among telecommunications carriers.").

[134] FE Statement 2-R at 10:6-7 (Zarakas Rebuttal Testimony).

C. The Pre-Existing Telecom Rates in My Direct Testimony Are the Correctly Calculated Pre-Existing Telecom Rates.

Q. Have you considered Mr. Schafer's criticisms of your pre-existing telecom rate calculations?

A. Yes. Mr. Schafer levies the same criticisms about my pre-existing telecom rate calculations as he did regarding my new telecom rate calculations. The arguments fail for the same reasons detailed above. The methodological errors in Mr. Schafer's calculations are more apparent, however, in the pre-existing telecom (or old telecom) rates he calculates. A properly calculated new telecom rate is 0.66 times the pre-existing telecom rate in FirstEnergy's service area, which means a properly calculated pre-existing telecom rate is about 1.51 times a properly calculated new telecom rate (1 / 0.66 = 1.51).[135] Mr. Schafer instead purports to calculate pre-existing telecom rates up to 2.3 times the new telecom rates he calculated.[136] They are also about 1.5 times the pre-existing telecom rates FirstEnergy calculated before this litigation was filed.[137]

Q. What is the primary difference between the pre-existing telecom rates you and Mr. Schafer calculate?

A. The major driver is Mr. Schafer's reliance on the unreliable data from FirstEnergy's field review. To perform a more appropriate comparison, I calculated the 2019 pre-existing telecom rates that result from Mr. Schafer's calculations if the presumptive inputs are used in place of the flawed field data results. The following table compares those rates, the rates FirstEnergy has charged Verizon, the pre-existing telecom rates FirstEnergy

[135] *See* Ex. TJT-1 at VZ00108 (Tardiff Aff. ¶ 8 n.6).

[136] *See* VZ Statement 1-R at 16:5-17:2 (Schafer Rebuttal Testimony).

[137] *See* Ex. MSC-12 (Met-Ed rate calculations); Ex. MSC-13 (Penelec rate calculations); Ex. MSC-14 (Penn Power rate calculations).

calculated before this litigation commenced, and my properly calculated pre-existing telecom rates:

Comparison of 2019 Per-Pole Rates	Met-Ed	Penelec	Penn Power
Agreement rate most-recently charged Verizon[138]	[redacted]		
FirstEnergy's pre-existing telecom rate calculations performed before this litigation[139]			
FirstEnergy's pre-existing telecom rate calculated for Verizon, but using presumptive inputs in place of flawed field data results [140]	$20.99	$14.05	$20.05[141]
Properly calculated pre-existing telecom rate[142]	$20.96	$13.75	$17.88

Exhibit MSC-5 includes similar comparisons for the 2011 through 2018 rental years. The comparisons further illustrate the unreasonableness of the agreement rates, as they exceed each pre-existing telecom rate calculation for Verizon's use of FirstEnergy's poles. The pre-existing telecom rate, however, is a *hard cap* on the rate FirstEnergy could charge even if it could rebut the Commission's new telecom rate presumption.[143]

[138] Ex. SCM-8 (Joint Statement).

[139] Ex. MSC-12 (Met-Ed rate calculations); Ex. MSC-13 (Penelec rate calculations); Ex. MSC-14 (Penn Power rate calculations).

[140] FE Statement 1-R at 16:5-17:2 (Schafer Rebuttal Testimony).

[141] FirstEnergy's rate was calculated with the inflated 11.14% rate of return I addressed above. If the rate of return is corrected in FirstEnergy's calculation, the resulting pre-existing telecom rate is [redacted] per pole.

[142] Ex. MSC-1 at VZ00067, VZ00077, VZ00087 (Calnon Aff., Exs. C-1, C-2, C-3).

[143] *See Third Report and Order*, 33 FCC Rcd at 7770-71 (¶¶ 127-29).

Q. Having reviewed the rebuttal testimony of FirstEnergy's witnesses, what are the properly calculated pre-existing telecom rates for Verizon's use of FirstEnergy's poles?

A. It remains my conclusion that a proper application of the FCC's pre-existing telecom rate formula produces the following per-pole pre-existing telecom rates for Verizon's use of FirstEnergy's poles for the 2011 to 2019 rental years:

Pre-Existing Telecom Rates for Verizon's Use of FirstEnergy's Poles (per pole)									
Rental Year	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**
Met-Ed poles	$12.57	$14.96	$15.26	$7.61	$14.16	$13.32	$14.47	$18.49	$20.96
Penelec poles	$9.74	$10.29	$10.89	$7.89	$10.54	$10.88	$11.35	$15.90	$13.75
Penn Power poles	$11.06	$12.83	$12.90	$12.44	$13.54	$14.24	$13.75	$16.94	$17.88

These are the same pre-existing telecom rates I included in my direct testimony.[144]

D. The Overpayment Calculations in My Direct Testimony Are Correct, and FirstEnergy's Witnesses Did Not Rebut Them.

Q. Please summarize the conclusion you reached about your overpayment calculations.

A. My overpayment calculations are correct. Verizon has overpaid FirstEnergy by [redacted] to date in excess of pole attachment rent calculated using proportional new telecom rates for both parties, and by [redacted] to date in excess of pole attachment rent calculated using proportional pre-existing telecom rates for both parties.[145] FirstEnergy's witnesses did not directly address my calculations or present calculations of their own. Instead, Mr. Schafer provided an irrelevant calculation of net rental

[144] VZ Statement 2.0 at 4:15-5:4 (Calnon Direct Testimony); Ex. MSC-1 at VZ00058-87 (Calnon Aff., Exs. C-1, C-2, C-3).

[145] VZ Statement 2.0 at 4:11-14, 5:1-4 (Calnon Direct Testimony); Ex. MSC-1 at VZ00101-103 (Calnon Aff., Ex. C-6).

amounts he calculated using rates he incorrectly refers to as "fully allocated" rates. That calculation is flawed for several reasons, including that it uses incorrect invoice amounts that understate the rent Verizon paid FirstEnergy.[146] For example, Mr. Schafer states Verizon paid Met-Ed [redacted] for 2012 pole attachment rent, when it is undisputed that Verizon paid Met-Ed [redacted] for 2012 pole attachment rent.[147]

Q. Has FirstEnergy elsewhere criticized your overpayment calculations?

A. Not specifically, although FirstEnergy's Answer challenges the proportional new and pre-existing telecom rates I applied to FirstEnergy's use of Verizon's poles.

Q. Did you properly calculate the proportional new and pre-existing telecom rates for FirstEnergy's use of Verizon's poles?

A. Yes. FirstEnergy's Answer included three criticisms, and each is unfounded. *First*, FirstEnergy questioned my calculation of rates based on the total reported for four relevant Verizon "study areas" in Pennsylvania.[148] Without support, FirstEnergy stated "Verizon is required to develop different rates for each study area."[149] My approach was proper and consistent with the [redacted] rate calculations FirstEnergy offered

[146] *See* VZ Statement 1.1 at 60:3-8 (Mills Surrebuttal Testimony); Ex. SCM-8 (Joint Statement ¶ 8).

[147] *Compare* FE Statement 1-R at 18:5 (Schafer Rebuttal Testimony) *with* Ex. SCM-8 (Joint Statement ¶ 8); Ex. SCM-30 (2012 Met-Ed Invoices).

[148] The relevant study areas are Verizon North LLC – Contel Pennsylvania (COPA), Verizon North LLC – Contel Quaker State (COQS), Verizon North LLC – Pennsylvania (GTPA), and Verizon Pennsylvania LLC – Pennsylvania (PAPA).

[149] Answer ¶ 107.

during the parties' negotiations.[150] My approach was also consistent with the parties' past practice; in 2009, the parties agreed to reduce the number of disparate rate structures in Pennsylvania to ease the administrative difficulties associated the payment of different rates to the same company based on the location of the pole. FirstEnergy's Answer showed how the parties would return to that scenario if Verizon calculated different rates for FirstEnergy's use of its poles based on the location of a pole: each FirstEnergy operating company would have up to four different rates depending on where Verizon's pole is located with respect to legacy service boundaries.[151]

Second, FirstEnergy overlooked my discussion of Verizon's compliance with an FCC regulation that applies where an ILEC, like Verizon, transitions from USOA-based accounting to GAAP-based accounting.[152] FirstEnergy argued in its Answer that I had not shown how my 2019 rate (the first rental year subject to the rule) comports with this rule, but I had detailed my compliance with the rule (47 C.F.R. § 1.1406(e)) and shown how it *reduced* the proportional 2019 rate for FirstEnergy's use of Verizon's poles.[153]

Third, FirstEnergy challenged my use of the Commission's presumptive inputs for pole height, space occupied by FirstEnergy, and usable space when calculating the space factor.[154] But these presumptive inputs were correct because there is no reliable data that

[150] *See* Ex. SCM-5 at VZ00686 (FCC Ex. 28) (showing [redacted] calculations).

[151] *See* Answer Attachment G at FE00105.

[152] Answer ¶ 107; *see also* 47 C.F.R. § 1.1406(e).

[153] Ex. MSC-1 at VZ00047-48, VZ00100 (Calnon Aff. ¶ 25 & n.26, Ex. C-5).

[154] Answer ¶ 107.

could rebut the presumptions. FirstEnergy's recent field survey did not produce that data for reasons detailed above, and even if it were accurate, it would only apply prospectively and increase the amount of space occupied by FirstEnergy.

Use of the field audit data to calculate rates in this case is additionally inappropriate because FirstEnergy avoided collecting information that would have risked a material increase to the new and preexisting rates FirstEnergy would pay for use of Verizon's poles. In particular, FirstEnergy rested on the presumption that Verizon's poles have an average of five attaching entities (to protect against a possible rate increase) while collecting data about the average number of attaching entities on FirstEnergy's poles to try to increase the rates it could calculate for Verizon. This attempt to cherry-pick inputs is inappropriate. It is also unreasonable to assume poles in the same geographic area have an average of five attaching entities when owned by Verizon, but only average [redacted] attaching entities when owned by FirstEnergy.

The financial incentive for FirstEnergy's selective data collection is apparent from the following illustration. Using 2019 new and pre-existing telecom rates as an example, the following table compares the rates I calculated for FirstEnergy's use of Verizon's poles using the default input of five average attaching entities with the rates that result when the input is changed to three:

FirstEnergy's Use of Verizon's Poles		
Rental Year 2019 Using data from 2018	New Telecom Rate	Pre-Existing Telecom Rate
Default: Average 5 attaching entities	$18.28 per pole	$27.70 per pole
Scenario: Average 3 attaching entities	$22.16 per pole	$33.58 per pole

FirstEnergy's selective data collection thus sought to avoid the potential for a $4 to $6 per pole rate increase of the rates it would pay Verizon. Use of the Commission's default inputs when calculating rates for both parties will protect against the inequity that would result from FirstEnergy's biased data collection decisions, designed to materially increase rates charged Verizon, but not FirstEnergy.

III. REBUTTAL OF OTHER ARGUMENTS OF FIRSTENERGY WITNESSES

Q. Please summarize the remainder of your surrebuttal testimony.

A. In this section, I will address various arguments raised by FirstEnergy witnesses to try to avoid application of the Commission's rate formulas. In particular, I will explain flaws in Mr. Schafer's argument about what he calls "fully allocated" rates, rebut Ms. Savage's argument about the ramifications of new telecom rates for electric ratepayers, and refute Mr. Zarakas's allegations about bargaining power.

A. The Commission Did Not Adopt Mr. Schafer's "Fully Allocated" Rate Methodology.

Q. What is your reaction to Mr. Schafer's criticism of the rate formula adopted by the Commission?

A. Mr. Schafer's criticism is misplaced, incorrect and irrelevant. In an effort to maintain the excessive contract rates, Mr. Schafer claims the Commission's rate formulas do not produce fully allocated rental rates. In other words, he contends that some pole costs incurred by FirstEnergy (specifically, costs associated with the unusable space on a pole)

are not reflected in the rental rates charged attachers under the Commission's rate formulas. This is not accurate. The Commission's rate formulas are based on all pole costs (direct costs and common costs) incurred by FirstEnergy and apportion them in the resulting rental rates.

Mr. Schafer focuses specifically on the unusable space on a pole. The Commission presumes a pole has 24 feet of unusable space,[155] an amount which reflects the general "guideline that 18 feet of the pole space must be reserved for ground clearance and that six feet of pole space is for setting the depth of the pole."[156] All FCC rate formulas—the cable formula, the pre-existing telecom formula, and the new telecom formula—are calculated using pole costs related to the entire pole, including costs associated with the usable and unusable space on the pole.

The space factor in the new and pre-existing telecom formulas allocates two-thirds of the cost for the unusable space equally among attaching entities (including the pole owner), which leaves one-third of the cost of the unusable space for the pole owner. This two-thirds allocation of unusable space is required by statute and regulation.[157]

[155] *See* 52 Pa. Code § 77.4(a); 47 C.F.R. § 1.1410.

[156] *See In the Matter of Implementation of Section 703(e) of the Telecommunications Act of 1996*, 13 FCC Rcd 6777 (¶ 22) (1998).

[157] *See* 52 Pa. Code § 77.4(a) (incorporating 47 U.S.C. § 224 and 47 C.F.R. Chapter I, Subchapter A, Part 1, Subpart J); 47 U.S.C. § 224(e)(2) ("A utility shall apportion the cost of providing space on a pole … other than the usable space among entities so that such apportionment equals two-thirds of the costs of providing space other than the usable space …"); 47 C.F.R. § 1.1409(a) ("a utility shall apportion the cost of providing unusable space on a pole so that such apportionment equals two-thirds of the costs of providing unusable space …").

In stating the Commission's rate formulas do not produce "fully allocated" rates, Mr. Schafer is proposing to revise the longstanding space factor formula by allocating the entire cost of unusable space equally among attaching entities. Using the Commission's presumption that a utility pole has five attaching entities (FirstEnergy plus four communications companies), the following table illustrates the difference between the required two-thirds allocation of unusable space costs under the regulations and the alternative advocated by Mr. Schafer:

Commission's Telecom Rate Formulas – Space Factor		
Attacher	*Allocation of Unusable Space*	*Total*
Communications attachers	Four attachers are each allocated 1/5 of 66% of unusable space, or 13.40%	53.60%
FirstEnergy as pole owner	FirstEnergy is allocated 1/5 of 66% of unusable space plus 33% of unusable space	46.40%
		100%
Mr. Schafer's Proposed Space Factor		
Attacher	*Allocation of Unusable Space*	*Total*
Communications attachers	Four attachers are each allocated 1/5 of 100% of unusable space, or 20%	80%
FirstEnergy as pole owner	FirstEnergy is allocated 1/5 of 100% of unusable space, or 20%	20%
		100%

The total cost of the unusable space is allocated under both space factors. Mr. Schafer simply wants to allocate the cost differently so FirstEnergy can charge higher rates by avoiding responsibility for costs Congress, the FCC, and the Commission allocated to pole owners.[158]

[158] *See* 52 Pa. Code § 77.4(a); 47 U.S.C. § 224(e)(2); 47 C.F.R. § 1.1409(a).

Q. Is this difference apparent in Mr. Schafer's calculations?

A. Yes. Mr. Schafer refers to the space factor calculation as the [redacted] in his various rate calculation spreadsheets. In the new and pre-existing telecom rate calculations, his [redacted] calculation includes a 2/3 input sourced to "FCC Formula."[159] In his "fully allocated" rate calculations, Mr. Schafer replaced the 2/3 input with a [redacted].[160] He provides no source for that value because there is no source in Commission or FCC regulations.

Q. Please compare the "fully allocated" rates in Mr. Schafer's spreadsheets to the "fully allocated" rates in Mr. Schafer's Tables 1 to 3.

A. Mr. Schafer ran four separate "fully allocated" rate calculations, and then included the highest of four in Tables 1 to 3 of his rebuttal testimony. Two calculations changed the 2/3 allocation required by the new telecom rate formula and two calculations changed the 2/3 allocation required by the pre-existing telecom rate formula. He then paired his novel rate methodologies with the FCC's default space factor inputs and the inputs from FirstEnergy's flawed field audit. His spreadsheets refer to these alternate calculations as [redacted]. The four calculations—not one of which is

[159] *See* Ex. MSC-8 (Met-Ed rate calculations); Ex. MSC-9 (Penelec rate calculations); Ex. MSC-10 (Penn Power rate calculations).

[160] *See* Ex. MSC-17 (Met-Ed "fully allocated" calculations); Ex. MSC-18 (Penelec "fully allocated" calculations); Ex. MSC-19 (Penn Power "fully allocated" calculations).

consistent with the Commission's regulations—produced materially different results. The following table includes the four rates Mr. Schafer calculated as "fully allocated" rates for use of FirstEnergy's poles for the 2011 rental year.[161] The last column includes the rates Mr. Schafer included in Tables 1 to 3.

Mr. Schafer's "Fully Allocated" Per-Pole Rates (2011 Rental Year)		
Met-Ed's poles	[redacted]	**$26.50**
Penelec's poles		**$20.49**
Penn Power's poles		**$26.28**

Although Mr. Schafer included the highest of the four rates in his rebuttal testimony, each rate was still *lower* than the rate FirstEnergy charged Verizon that rental year.

Q. Mr. Schafer says his formula is better than the Commission's rate formulas because the Commission rate formulas do not account for all pole costs. Do you agree with his statement?

A. No. The Commission's rate formulas account for all pole costs. The allocation of two-thirds of the unusable space to attaching entities does not mean the rate formulas ignore costs. Instead, it simply means the other one-third of the unusable space is allocated to the pole owner. Mr. Schafer recognizes this when he says that "[w]ith the insertion of [the two-thirds] coefficient, pole owners were effectively directly assigned 1/3rd of the common space cost."[162] Mr. Schafer's argument thus boils down to his belief that the Commission should abandon the formulas that have long been in place and that it recently adopted in its regulations and reallocate costs among attaching entities and pole owners.

[161] *See* Ex. MSC-17 (Met-Ed "fully allocated" calculations).

[162] FE Statement 1-R at 3-6 (Schafer Rebuttal Testimony).

Q. What impact would Mr. Schafer's methodology have on pole attachment rates in Pennsylvania?

A. It would significantly increase pole attachment rates and require communications companies to cover costs properly assigned to FirstEnergy, assuming Mr. Schafer intends his new rate methodology to replace the Commission's adopted formulas for all attaching entities.[163] This is apparent in the following illustration. Using the annual pole costs Mr. Schafer calculated for the 2011 rental year, and the Commission's presumption that FirstEnergy's poles have five attaching entities (FirstEnergy plus four communications companies), if four communications companies paid FirstEnergy the "fully allocated" rates Mr. Schafer seeks on a competitively neutral non-discriminatory basis, FirstEnergy—which presumptively uses 10.5 feet of space on its poles—would collect about 90 percent of its pole costs from four companies that together require a total of about three feet of space on its poles:[164]

	"Fully Allocated" Per-Pole Rates from Tables 1-3	Total from Four Communications Attachers	FirstEnergy's Annual Pole Cost[165]	Percent of FirstEnergy's Pole Cost
Met-Ed's poles	$26.50	$106.00	[redacted]	[redacted]
Penelec's poles	$20.49	$81.96		
Penn Power's poles	$26.28	$105.12		

[163] If this is not Mr. Schafer's intention and he criticizes the Commission's rate formulas only as applied to Verizon, his methodology would undermine competitive neutrality and perpetuate outdated rate disparities between Verizon and its competitors.

[164] *See* Ex. SCM-1 at VZ00029-30 (Mills Aff. ¶ 65).

[165] Ex. MSC-17 (Met-Ed "fully allocated" calculations); Ex. MSC-18 (Penelec "fully allocated" calculations); Ex. MSC-19 (Penn Power "fully allocated" calculations).

Under this scenario, FirstEnergy's effective rate for use of 10.5 feet of space on a pole would be far *lower* than the rate FirstEnergy would charge communications companies for their use of about 1 foot of space:

	"Fully Allocated" Per-Pole Rates from Tables 1-3	Total from Four Communications Attachers	FirstEnergy's Annual Pole Cost[166]	FirstEnergy's Responsibility (per pole)
Met-Ed's poles	$26.50	$106.00	[redacted]	
Penelec's poles	$20.49	$81.96		
Penn Power's poles	$26.28	$105.12		

Q. Mr. Schafer says the Commission's rate formulas are inconsistent with Pennsylvania ratemaking policies. Are they?

A. No. The Commission's rate formulas cannot be inconsistent with Pennsylvania practices because they are the formulas the Commission adopted following a thoroughly vetted rulemaking proceeding in which FirstEnergy had ample opportunity to make its arguments. They also reflect an appropriate balance of the interests of pole owners and attachers. Indeed, it makes sense that the Commission's rate formulas assign FirstEnergy responsibility for more *unusable* space than is assigned to communications attachers because FirstEnergy uses far more *usable* space than communications attachers. In this respect, Mr. Schafer is simply wrong when he says the FCC's rate formulas, and the cable formula in particular, do not allocate the cost of unusable space on the pole.[167] Instead, the FCC has long been clear its cable formula "attributes unusable space" to attaching entities "based on the portion of usable space occupied" by that attaching

[166] Ex. MSC-17 (Met-Ed "fully allocated" calculations); Ex. MSC-18 (Penelec "fully allocated" calculations); Ex. MSC-19 (Penn Power "fully allocated" calculations).

[167] FE Statement 1-R at 13:17-21 (Schafer Rebuttal Testimony).

entity.[168] Mr. Schafer's lengthy discussion of "fully allocated" rates is thus a simple and improper attempt to change the Commission's regulations so FirstEnergy can shift its own infrastructure costs to the communications attachers that depend on its poles to deploy and provide telecommunications, broadband, video, wireless and other advanced services in Pennsylvania.

B. Verizon's Payment of a Competitively Neutral New Telecom Rate Will Not Materially Harm Retail Electric Customers in Pennsylvania.

Q. Did you review Ms. Savage's rebuttal testimony?

A. Yes. Ms. Savage says it was filed in response to claims I made in my direct testimony, but other than relying on one number I calculated in one of my exhibits, she does not address or criticize my prior testimony.

Q. Please summarize your response to Ms. Savage's rebuttal testimony.

A. Ms. Savage was advised by counsel that the rates Electric Distribution Companies (EDCs) charge for electric service must be "just and reasonable as well as non-discriminatory (*i.e.*, not grant any person an unreasonable preference or advantage or subject any person to an unreasonable prejudice or disadvantage.)"[169] FirstEnergy's pole attachment rates should also meet this standard, but they do not. Instead, FirstEnergy seeks to continue charging Verizon far more than FirstEnergy may charge Verizon's competitors for use of comparable space on its poles.

[168] *Teleport Commc'ns Atlanta, Inc.*, 16 FCC Rcd at 20239 (¶ 3).

[169] FE Statement 3-R at 3:8-11 (Savage Rebuttal Testimony).

Ms. Savage does not grapple with the discriminatory rates FirstEnergy charges Verizon. Instead, she argues a reduction of those rates would "result in lower joint use revenues and therefore a smaller credit to electric ratepayers when the Companies calculate the revenue requirement in their next base rate cases."[170] She predicts this will result "in higher base distribution rates" for customers "than would otherwise be the case absent the reduction in joint use fees."[171] Setting aside the hypothetical nature of Ms. Savage's predictions, and the fact Verizon has long overcompensated FirstEnergy by paying for pole space Verizon does not use, I disagree with her concerns about the potential impact of charging Verizon the properly calculated competitively neutral new telecom rate required by law.

Q. Please provide your analysis of the potential impact, assuming the accuracy of Ms. Savage's prediction.

A. Ms. Savage states that FirstEnergy's operating revenues would be reduced if Verizon's rental payments were lowered. As a result, I compared FirstEnergy's annual operating revenues as reported in its FERC Form 1 to the overpayment amounts I calculated in Exhibit MSC-1. My full calculation is attached as Exhibit MSC-5. The following table compares the overpayments I calculated (as compared to properly calculated new telecom rental rates) to FirstEnergy's reported operating revenues for the same rental years. It shows the reductions at issue in this case amount to about [redacted] of FirstEnergy's operating revenues:

[170] *Id.* at 4:11-13.

[171] *Id.* at 4:13-14.

	Average Annual Operating Revenues (2011-2018)	Verizon's Average Annual Overpayment: New Telecom Rates (2011-2018)	Percentage of Overpayment to Operating Revenues
Met-Ed	$842,223,790	[redacted]	
Penelec	$852,505,208		
Penn Power	$225,252,150		
Total	$1,919,981,148		

The overpayment amounts are so minimal in comparison to FirstEnergy's operating revenues, it is impossible to conclude that consumer rates would need to increase were FirstEnergy to charge the competitively neutral pole attachment rates required by law.

C. FirstEnergy's Claims About Bargaining Power Do Not Justify the Joint Use Agreement Rates.

Q. Does FirstEnergy have bargaining power when negotiating pole attachment rates with Verizon?

A. Yes. FirstEnergy's contrary claim is refuted by the substantial pole ownership imbalance, FirstEnergy's conduct throughout its negotiations with Verizon, and the discrimination reflected in the excessive rates FirstEnergy says it charges CLEC and cable attachers. FirstEnergy has significant bargaining power as a result of the nearly three-to-one pole ownership imbalance with Verizon based on "standard economic theories" the FCC recognized in the 2011 *Pole Attachment Order*.[172] FirstEnergy's behavior during its negotiations with Verizon and in its dealings with cable and CLEC attachers demonstrates FirstEnergy's willingness and ability to exercise that bargaining power by (a) perpetuating rates for Verizon that are more than triple the proper rates FirstEnergy *should be* charging cable and CLEC attachers, and (b) price discriminating

[172] *See Pole Attachment Order*, 26 FCC Rcd at 5329 (¶ 206 n.618); *see also Final Rulemaking Order*, 2019 WL 4345730 at *1 n.6 (citing "*April 2011 Order*").

among cable and CLEC attachers despite the fact these attachers are similarly situated and entitled by statute and regulation to a properly calculated new telecom rate. These abuses of market power by an owner of an essential input (poles) distorts competition in the downstream market (cable, broadband and communications services).

Q. Please explain the basis for your conclusion.

A. In his direct testimony, Mr. Mills detailed FirstEnergy's exercise of its bargaining power to perpetuate the agreement rates during negotiations. FirstEnergy's Answer and the rebuttal testimony of its witnesses do not rebut the facts Mr. Mills presented and confirm a pattern of behavior consistent with the ongoing exercise of bargaining power. FirstEnergy agreed it owns three joint use poles for every one Verizon owns.[173] Mr. Schafer admitted FirstEnergy refused to sell Verizon poles, [174] which allowed FirstEnergy to preserve its pole ownership majority. FirstEnergy admitted it engaged in protracted negotiations, and asserted for the first time in its Answer "there is not enough guidance in the *2011 Pole Attachment Order* for the parties to negotiate a resolution of this issue without a pole attachment complaint proceeding."[175] Mr. Schafer and Mr. Zarakas rely on a *framework* Mr. Schafer proposed for *potential* rate reforms that tied the possibility of rate relief to Verizon's agreement to transfer its poles to FirstEnergy[176]—a scheme that would have increased FirstEnergy's bargaining power and, given FirstEnergy's self-

[173] *See* Answer to Compl. ¶ 4.

[174] FE Statement 1-R at 11:1-11 (Schafer Rebuttal Testimony); *see also* Answer to Compl. ¶¶ 23, 31.

[175] Answer ¶ 121.

[176] *See, e.g.*, FE Statement 1-R at 27:7-28:2 (Schafer Rebuttal Testimony); FE Statement 2-R at 26:27-27:3 (Zarakas Rebutal Testimony).

admitted practice of price discrimination, *not* guarantee Verizon a just and reasonable properly calculated new telecom rate.

Q. Have you seen evidence FirstEnergy has been willing to exercise its superior bargaining power with respect to other attachers as well?

A. Yes. FirstEnergy documented significant variations in the rates it charges CLEC and cable attachers.[177] Without identifying a single provision in an agreement, it states "[t]hese fees are appropriate, as they were agreed to by FirstEnergy and its attachers along with other bargained-for rates, terms and conditions."[178] At the same time, FirstEnergy admitted its license agreements with several cable and CLEC providers "all contain nearly identical provisions."[179]

I reviewed the redacted license agreements FirstEnergy produced, and so was able to compare the non-rental rate terms and conditions for FirstEnergy's licensees. [redacted]. Instead, I agree with FirstEnergy's statement that its license agreements tend to contain "nearly identical provisions."[180] In my review, I did identify several license agreements that [redacted]. Rates calculated under such [redacted] would not

[177] *See* Answer ¶ 101; Ex. MSC-20 (Response to Verizon Interrogatory Set I, No. 4).

[178] *See* Answer ¶ 102; *see also* Ex. MSC-21 (Response to Verizon Interrogatory Set II, No. 16).

[179] *See* Answer ¶ 103 n.117.

[180] *See id.*

tend to have a relationship to rates properly calculated under the Commission's rate formula in terms of their rate level or year-over-year change. There was nothing about the non-rental rate terms and conditions in these license agreements, however, that appeared to [redacted] [redacted] FirstEnergy may charge using that methodology.

Q. Please address FirstEnergy's specific arguments about bargaining power.

A. Despite the evidence of FirstEnergy's bargaining power, FirstEnergy's witnesses attempt to deny that bargaining power with four arguments: (a) that Verizon rejected a less-costly alternative from FirstEnergy, (b) that FirstEnergy would suffer harm if it were unable to connect to Verizon's poles, (c) that it would be expensive for FirstEnergy to construct a parallel pole network, and (d) that evergreen provisions prevent FirstEnergy from disconnecting Verizon's existing attachments. These arguments do not negate FirstEnergy's bargaining power.

The first claim that Verizon rejected a less-costly alternative fails to recognize that FirstEnergy's "offer" lacked the details necessary for Verizon to conduct a proper business case evaluation considering all relevant costs and benefits of a transition of pole ownership to FirstEnergy. The analysis is also flawed in that it collapses a potential settlement framework—which would require multiple transactions, a multi-year (if not multi-decade) implementation, and a complex set of commercial and legal agreements—into a single statement regarding the potential for a change in rental payment. Nothing about the proposed "offer" was definite or even likely given FirstEnergy's insistence on

far higher "telecom" rates during the parties' negotiations than it calculated in its Answer.[181]

FirstEnergy's three remaining arguments *confirm* FirstEnergy's bargaining power. For example, Mr. Zarakas establishes a false "strawman" alternative to the current joint use agreement rates, which would require establishing stand-alone networks for Verizon and FirstEnergy. Mr. Coleman and Mr. Pryatel cite this alternative's prohibitive costs to FirstEnergy, but fail to recognize that under the alternative, Verizon would incur roughly three times FirstEnergy's cost because FirstEnergy owns three times the poles. When the alternatives to the current agreement rates are significantly more costly for one party to the negotiation than to the other, the party that would suffer the least is in the strongest bargaining position.

FirstEnergy also relied in its Answer on a Declaration Dr. Bridger Mitchell filed in 2014 in an unrelated case, in which he argued joint use agreements share costs of a pole network and can "be understood to be the solution to a cooperative game."[182] Dr. Mitchell was silent about how the relative bargaining power of the parties influences the outcome of that game. He also failed to recognize that games have rules, referees, and constraints.

The law and the competitive telecommunications marketplace have fundamentally changed since the joint use agreements were signed. FirstEnergy's Answer and the rebuttal testimony of its witnesses confirm FirstEnergy has bargaining power and has

[181] *See, e.g.*, Ex. SCM-5 at VZ00652-685 (FCC Ex. 28).

[182] *See* Answer Attachment E at FE00047 (Mitchell Decl. ¶ 8).

exercised it to postpone and avoid the rental rate changes that would eliminate the outdated, artificial, and non-cost-based rate differences between Verizon and its competitors.

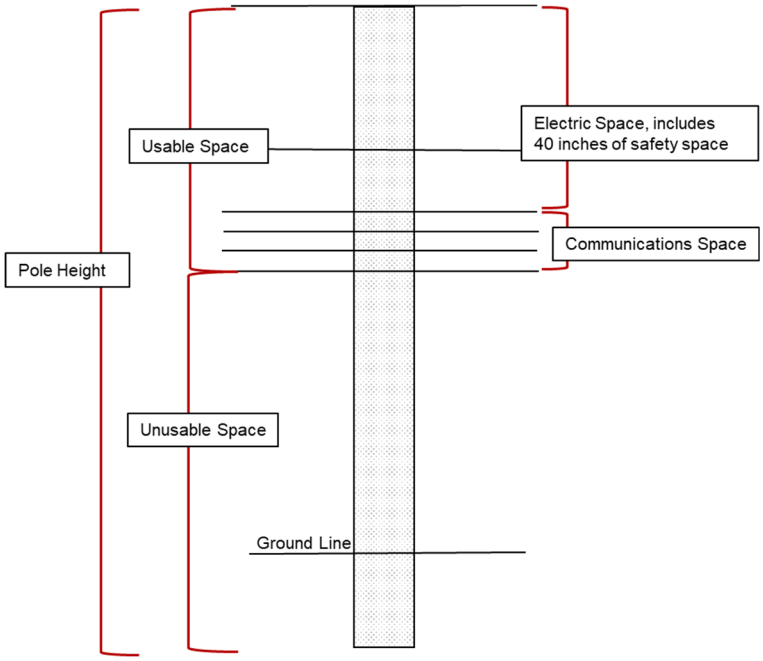
Q. Does this conclude your surrebuttal testimony?

A. Yes, although I reserve the right to supplement my surrebuttal testimony should it become necessary to do so.

Exhibit MSC-3

Reference Guide: Commission's Adopted Per-Pole Rate Formulas

Utility Pole Overview



- The typical utility pole includes space for electric and communications facilities.
- Communications facilities are typically located below electric facilities on a pole, although wireless providers are increasingly installing pole-top antennas.
- The FCC adopted presumptive values for rate inputs to provide rate predictability, avoid a pole-by-pole rate calculation, and eliminate the cost and expense of extensive annual field audits to gather real-time data.
- The presumptions are in the regulations the Commission adopted. *See* 52 Pa. Code § 77.4(a); 47 C.F.R. §§ 1.1409(c), 1.1410.
- The presumptions are:
  - Pole Height: 37.5 feet.
  - Unusable space: 24 feet.
  - Usable space: 13.5 feet.
  - Space occupied by communications attachers (ILECs, CLECs, cable companies, wireless providers): 1 foot.
  - Average number of attaching entities when service area includes areas with 50,000 or more people ("urban" areas, which includes FirstEnergy's serving areas): 5.
- The presumptions, when paired together, assume the electric utility occupies 10.5 feet of space. Under FCC precedent, the electric utility's space must include 40 inches of safety space required by its facilities.
- The presumptions are generally conservative:
  - Pole height has tended to increase for resiliency and to accommodate more attachers. The presumptive 37.5-foot value is the average of the most commonly used poles in the 1970s, which were 35 and 40-foot poles (there are no 37.5-foot poles because poles come in 5-foot increments). *See* 72 FCC.2d 59, 69 (¶ 21) (1979).
  - Space occupied by electric utilities has tended to increase over time for infrastructure improvement and other reasons, and space occupied by communications companies has tended to decrease as technology has improved.

Additional FCC Rate Calculation Fundamentals (Page 1)

- Cost Data: Pole attachment rates are calculated using the pole owner's reported cost data:
  - For use of an electric utility's poles, the relevant cost data is found in its FERC Form 1.
  - For use of an ILEC's poles, the relevant cost data is found in its ARMIS report, which is filed with the FCC. The cost data may now reflect Uniform System of Accounts (USOA) or Generally Accepted Accounting Principles (GAAP) accounting.

- Pole-Related Investment Only: Pole attachment rates are based on a pole owner's investment in poles, but the relevant cost accounts include non-pole related investment. The FCC adopted an "appurtenance factor" to ensure a pole owner's non-pole-related investment in cross-arms and other appurtenances needed to support its own facilities is not shifted to attaching entities:
  - Electric utilities require more investment in appurtenances to support their overhead distribution facilities, so the appurtenance factor for use of an electric utility's poles is 15 percent.
  - ILECs require less investment in appurtenances to support their wireline facilities, so the appurtenance factor for use of an ILEC's poles is 5 percent.

- Rate of Return: Pole attachment rates are calculated using a rate of return input to ensure the pole owner is appropriately compensated for its capital investment:
  - Because electric utilities are rate-of-return regulated, rates for use of an electric utility's poles are calculated using its actual weighted average cost of debt and equity.
  - Because ILECs operate in a competitive environment, rates for use of an ILEC's poles are calculated using a rate of return authorized by the FCC. The authorized rate of return is in the process of transitioning one-quarter point per year from 11.25% to 9.75%. Effective July 1, 2020, it will be 10.0%.

Additional FCC Rate Calculation Fundamentals (Page 2)

- Usable Space Occupied: Pole attachment rate formulas include a "space occupied" input to ensure rates are calculated based on the space a company uses on the pole.

- Unusable Space: Pole attachment rates include allocations of unusable space as required by the statute and regulations the Commission adopted:

  - The cable rate formula allocates unusable space to attachers in proportion to the amount of usable space they occupy.

  - The space factor in the new telecom and old telecom formulas allocates two-thirds of the unusable space equally among attachers (including the pole owner) and the remaining one-third of the unusable space to the pole owner.

  - Unlike presumptive inputs to the formula, the allocations of unusable space cannot change from the allocations required by statute and regulation.

Sources: 52 Pa. Code § 77.4(a); 47 U.S.C. § 224(d)-(e); 47 C.F.R. §§ 1.1406(d), 1.1409(a); *In the Matter of Connect Am. Fund*, 31 FCC Rcd 3087 (2016); *RCNRcn Telecom Servs. of Philadelphia, Inc. v. PECO Energy Co*., 17 FCC Rcd 25238 (2002); *Consolidated Partial Order*, 16 FCC Rcd 12103 (2001); *Multimedia Cablevision, Inc. v. Sw. Bell Tel. Co*., 11 FCC Rcd 11202 (1996).

Annual Pole Cost and Carrying Charge Rate Calculations
for Use of Electric Utility Poles

$$\text{Net Cost of a Bare Pole} = \frac{\text{Gross Pole Investment (Account 364)} - \text{Accumulated Depreciation (Account 108) (Poles)} - \text{Accumulated Deferred Income Taxes (Accounts 190, 281-283) (Poles)} - \text{0.15 Net Pole Investment (Appurtenance Factor)}}{\text{Total Number of Distribution Poles}}$$

$$\text{Net Pole Investment} = \text{Gross Pole Investment (Account 364)} - \text{Accumulated Depreciation (Account 108) (Poles)} - \text{Accumulated Deferred Income Taxes (Account 190, 281-283) (Poles)}$$

$$\text{Carrying Charge Rate} = \text{Administrative} + \text{Maintenance} + \text{Depreciation} + \text{Taxes} + \text{Return}$$

$$\text{Administrative Element} = \frac{\text{Total General and Administrative}}{\text{Gross Plant Investment (Electric)} - \text{Accumulated Depreciation (Account 108)} - \text{Accumulated Deferred Taxes (Plant) (Accounts 190, 281-283)}}$$

$$\text{Maintenance Element} = \frac{\text{Account 593}}{\text{Pole Investment in Accounts 364, 365 \& 369} - \text{Depreciation (Poles) Related to Accounts 364, 365 \& 369} - \text{Accumulated Deferred Income Taxes Related to Accounts 364, 365 \& 369}}$$

$$\text{Depreciation Element} = \frac{\text{Gross Pole Investment (Account 364)}}{\text{Net Pole Investment}} \times \text{Depreciation Rate for Gross Pole Investment}$$

$$\text{Taxes Element} = \frac{\text{Accounts 408.1 + 409.1 + 410.1 + 410.1 + 411.4 - 411.1}}{\text{Gross Plant Investment (Total Plant)} - \text{Accumulated Depreciation (Account 108)} - \text{Accumulated Deferred Taxes (Plant) (Accounts 190, 281-283)}}$$

$$\text{Return Element} = \text{Weighted Average Cost of Debt and Equity}$$

Sources: *Consolidated Partial Order*, 16 FCC Rcd 12103 (2001); *Multimedia Cablevision, Inc. v. Southwestern Bell Tel. Co.*, 11 FCC Rcd 11202 (1996); *Amendment of Rules & Policies Governing the Attachment of Cable Television Hardware to Util. Poles*, 2 FCC Rcd 4387 (1987).

Cable Rate Formula

$$\text{Maximum Rate} = \text{Space Factor} \times \text{Net Cost of a Bare Pole} \times \text{Carrying Charge Rate}$$

$$\text{Where Space Factor} = \frac{\text{Space Occupied by Attachment}}{\text{Total Usable Space}}$$

- Sets the maximum rate for use of poles by cable companies providing cable services.
- When properly applied with presumptive inputs, recovers about 7.4% of annual pole cost.
- Approximates the new telecom rate.
- Cost of unusable space is allocated based on proportion of usable space occupied.
- Affirmed by the Supreme Court as fully compensatory to the pole owner.

Sources: 47 C.F.R. § 1.1406(d)(1); *FCC v. Fla. Power Corp.*, 480 U.S. 245 (1987); *Pole Attachment Order*, 26 FCC Rcd 5240 (2011); *RCNRcn Telecom Servs. of Philadelphia, Inc. v. PECO Energy Co.*, 17 FCC Rcd 25238 (2002).

New Telecom Rate Formula

Rate = Space Factor x Cost

$$\text{Where Space Factor} = \left[\frac{\left(\frac{\text{Space}}{\text{Occupied}} \right) + \left(\frac{2}{3} \times \frac{\text{Unusable Space}}{\text{No. of Attaching Entities}} \right)}{\text{Pole Height}} \right]$$

Where Cost = In service areas where the average number of attaching entities is:

5: 0.66 x (Net Cost of a Bare Pole x Carrying Charge Rate)

4: 0.56 x (Net Cost of a Bare Pole x Carrying Charge Rate)

3: 0.44 x (Net Cost of a Bare Pole x Carrying Charge Rate)

2: 0.31 x (Net Cost of a Bare Pole x Carrying Charge Rate)

Other: value interpolated from above values x (Net Cost of a Bare Pole x Carrying Charge Rate)

- Sets the maximum rate for use of poles by CLECs and cable companies providing telecommunications services.
- For use of poles by ILECs:
  - Is the presumptive just and reasonable rate under "new and newly renewed" agreements, including agreements that were automatically renewed, extended, or placed in evergreen status after March 11, 2019 (the effective date of the *Third Report and Order*).
  - Is the just and reasonable rate under other agreements unless the electric utility provides the ILEC net benefits under their joint use agreement that materially advantage the ILEC as compared to the terms and conditions the electric utility provides the ILEC's competitors.
- When properly applied with presumptive inputs, recovers about 7.4% of annual pole cost.
- Approximates the cable rate.
- Space factor allocates applicable cost of unusable space as required by statute (two-thirds equally among attaching entities, one-third to pole owner).
- Found fully compensatory by the FCC and affirmed on appeal.

Sources: 47 U.S.C. § 224(e)(2); 47 C.F.R. §§ 1.1406(d)(2), 1.1413(b); *Pole Attachment Order*, 26 FCC Rcd 5240 (2011); *Third Report and Order*, 33 FCC Rcd 7705 (2018); *Am. Elec. Power Serv. Corp. v. FCC*, 708 F.3d 183 (D.C. Cir. 2013); *Ameren Corp. v. FCC*, 865 F.3d 1009 (8th Cir. 2017).

Old Telecom Rate Formula (also known as Pre-Existing Telecom Rate Formula)

$$\text{Maximum Rate} = \text{Space Factor} \times \text{Net Cost of a Bare Pole} \times \left[\begin{array}{c}\text{Carrying}\\ \text{Charge}\\ \text{Rate}\end{array}\right]$$

$$\text{Where Space Factor} = \left[\frac{\left(\begin{array}{c}\text{Space}\\ \text{Occupied}\end{array}\right) + \left(\frac{2}{3} \times \frac{\text{Unusable Space}}{\text{No. of Attaching Entities}}\right)}{\text{Pole Height}}\right]$$

- Before 2011, was the maximum rate for use of poles by CLECs and cable companies providing telecommunications services.

- For use of poles by ILECs:

  - Is a "hard cap" on the rate that may be charged ILECs under "new and newly renewed" agreements, including agreements that were automatically renewed, extended, or placed in evergreen status after March 11, 2019 (the effective date of the *Third Report and Order*), if the electric utility rebuts the new telecom rate presumption with clear and convincing evidence it provides the ILEC net benefits under their joint use agreement that materially advantage the ILEC as compared to the terms and conditions the electric utility provides the ILEC's competitors. In this scenario, the annual per pole value of each benefit must be quantified and added to the new telecom rate, the sum of which may not exceed the old telecom rate.

  - For other agreements, is a "reference point" for the just and reasonable rate if the electric utility provides the ILEC net benefits under their joint use agreement that materially advantage the ILEC as compared to the terms and conditions the electric utility provides the ILEC's competitors. As with "new and newly renewed" agreements, the annual per pole value of each benefit must be quantified and added to the new telecom rate, but in this scenario the old telecom rate is the "reference point" rather than the maximum rate.

- When properly applied with presumptive inputs in urban service areas like FirstEnergy's, recovers about 11.2% of annual pole cost.

- In urban service areas like FirstEnergy's, old telecom rate is 1.51 times the new telecom rate.

- Space factor allocates applicable cost of unusable space as required by statute (two-thirds equally among attaching entities, one-third to pole owner).

Sources: 47 U.S.C. § 224(e)(2); 47 C.F.R. §§ 1.1406(d)(2), 1.1413(b); *Pole Attachment Order*, 26 FCC Rcd 5240 (2011); *Third Report and Order*, 33 FCC Rcd 7705 (2018).

Exhibit MSC-4
Proprietary Exhibit Omitted

Exhibit MSC-5
Proprietary Exhibit Omitted

Exhibit MSC-6
Redacted Public Version

Comparison of Overpayments at Proportional New Telecom Rates to Operating Revenues Data from FERC Form 1

Data Sources: FERC Form 1, page 300, line 14 ("Total Revenues Net of Provisions for Refunds"); Statement 2.0, Ex. MSC-1 at Ex. C-6 (VZ00102)

	2011	2012	2013	2014	2015	2016	2017	2018	Average
Met-Ed Operating Revenues	$ 1,158,550,149	$ 871,555,620	$ 770,805,374	$ 721,293,744	$ 797,275,322	$ 792,488,681	$ 806,252,752	$ 819,568,676	$ 842,223,790
[redacted]									
Penelec Operating Revenues	1,029,909,372	850,259,615	794,087,448	745,677,270	797,549,145	836,718,111	869,641,815	896,198,886	$ 852,505,208
[redacted]									
Penn Power Operating Revenues	233,799,677	194,284,030	188,008,938	197,661,895	250,995,086	246,800,024	239,125,683	251,341,869	$ 225,252,150
[redacted]									
Totals									
Total Operating Revenues	$ 2,422,259,198	$ 1,916,099,265	$ 1,752,901,760	$ 1,664,632,909	$ 1,845,819,553	$ 1,876,006,816	$ 1,915,020,250	$ 1,967,109,431	$ 1,919,981,148
[redacted]									

Comparison of Overpayments at Proportional Old Telecom Rates to Operating Revenues Data from FERC Form 1

Data Sources: FERC Form 1, page 300, line 14 ("Total Revenues Net of Provisions for Refunds"); Statement 2.0, Ex. MSC-1 at Ex. C-6 (VZ00103)

	2011	2012	2013	2014	2015	2016	2017	2018	Average
Met-Ed Operating Revenues	$ 1,158,550,149	$ 871,555,620	$ 770,805,374	$ 721,293,744	$ 797,275,322	$ 792,488,681	$ 806,252,752	$ 819,568,676	$ 842,223,790
Penelec Operating Revenues	1,029,909,372	850,259,615	794,087,448	745,677,270	797,549,145	836,718,111	869,641,815	896,198,886	$ 852,505,208
Penn Power Operating Revenues	233,799,677	194,284,030	188,008,938	197,661,895	250,995,086	246,800,024	239,125,683	251,341,869	$ 225,252,150
Totals									
Total Operating Revenues	$ 2,422,259,198	$ 1,916,099,265	$ 1,752,901,760	$ 1,664,632,909	$ 1,845,819,553	$ 1,876,006,816	$ 1,915,020,250	$ 1,967,109,431	$ 1,919,981,148

Exhibit MSC-7

METROPOLITAN EDISON COMPANY, PENNSYLVANIA ELECTRIC COMPANY AND PENNSYLVANIA POWER COMPANY
v.
VERIZON PENNSYLVANIA LLC AND VERIZON NORTH LLC
Docket No. C-2020-3019347

Verizon Interrogatory Set III, No. 21

Reference Rebuttal Testimony. Provide all documents, workpapers, reports, and analyses FirstEnergy's witnesses considered or relied upon in preparing Rebuttal Testimony.

ORIGINAL RESPONSE (6/2/2020):

Attached as CONFIDENTIAL Verizon Interrogatory Set III, No. 21, Attachment A is a document relied upon by Ms. Savage in preparing her rebuttal testimony (FirstEnergy Statement No. 3-R), which has not been provided previously. All other documents, workpapers, reports, and analyses considered or relied upon by FirstEnergy's witnesses in preparing their rebuttal testimony are already in Verizon's possession.

SUPPLEMENTAL RESPONSE (6/5/2020):

Attached as CONFIDENTIAL Verizon Interrogatory Set III, No. 21, Attachment A is a document relied upon by Ms. Savage in preparing her rebuttal testimony (FirstEnergy Statement No. 3-R), which has not been provided previously.

In addition, attached as CONFIDENTIAL Verizon Interrogatory Set III, No. 21, Attachments B through D are zip files containing Excel files relied upon by Mr. Schafer in preparing his rebuttal testimony (FirstEnergy Statement No. 1-R), which have not been provided previously.

All other documents, workpapers, reports, and analyses considered or relied upon by FirstEnergy's witnesses in preparing their rebuttal testimony are already in Verizon's possession.

Exhibit MSC-8
Proprietary Exhibit Omitted

Exhibit MSC-9
Proprietary Exhibit Omitted

Exhibit MSC-10
Proprietary Exhibit Omitted

Exhibit MSC-11

METROPOLITAN EDISON COMPANY, PENNSYLVANIA ELECTRIC COMPANY AND PENNSYLVANIA POWER COMPANY
v.
VERIZON PENNSYLVANIA LLC AND VERIZON NORTH LLC
Docket No. C-2020-3019347

Verizon Interrogatory Set II, No. 15

Reference Answer Brief ¶ 101. Describe in detail how FirstEnergy calculated the rates it charged cable companies and CLECs each year from 2011 through 2019 and identify the calculations, inputs, assumptions, and sources for each rate, the person(s) who conducted the measurements, and the date the rate was calculated. Provide all documents concerning the calculations if they are not publicly available.

ORIGINAL RESPONSE (5/22/2020):

Rates charged to cable television ("CATV") and competitive local exchange carrier ("CLEC") companies are based on calculation of the Federal Communications Commission ("FCC") telecom rate formulas or per respective agreements. CATV and CLEC companies that are not receiving the FCC telecom formula rate pay the rate as per the negotiated agreements with escalators as described in the respective agreements. *See* Verizon Interrogatory Set II, No. 15, Attachments A1 through A12, B1 through B12 and C1 through C11 for calculations of the FCC telecom rate formulas for Met-Ed, Penelec, and Penn Power, respectively. Copies of the CATV and CLEC agreements that have rates not based on those formulas were previously provided to Verizon.

SUPPLEMENTAL RESPONSE (6/2/2020):

Rates charged to cable television ("CATV") and competitive local exchange carrier ("CLEC") companies are based on calculation of the Federal Communications Commission ("FCC") telecom rate formulas or per respective agreements. CATV and CLEC companies that are not receiving the FCC telecom formula rate pay the rate as per the negotiated agreements with escalators as described in the respective agreements. *See* Verizon Interrogatory Set II, No. 15, CONFIDENTIAL Corrected Attachments A1 through A6, B1 through B6, and C1 through C6 for calculations of the FCC telecom rate formulas for Met-Ed, Penelec, and Penn Power, respectively, that were used for invoicing. The CONFIDENTIAL Corrected Attachments A1 through A6, B1 through B6, and C1 through C6 replace all of the attachments originally served on May 22, 2020. FirstEnergy was unable to locate its calculations of the FCC telecom rate formulas for Met-Ed, Penelec, and Penn Power that were used for invoicing prior to 2014. The calculations set forth in CONFIDENTIAL Corrected Attachments A1 through A6, B1 through B6, and C1 through C6 are self-explanatory, as the spreadsheets contain the live formulas of the calculations and show how

the calculations were performed. Below is a table showing who performed those calculations and when:

Data Year	**Billing YR**	**Who**	**When**
2013	2014	Deanna DeWitt	ME and PN 6/2014, PP 9/2014
2014	2015	Deanna Dewitt	ME 7/2015, PN 10/2015, PP 9/2015
2015	2016	Deanna Dewitt	ME and PN 11/2016, PP 10/2016
2016	2017	Deanna Dewitt	ME, PN, PP 6/2017
2017	2018	Andrew Bowen	ME, PN, PP 12/2018
2018	2019	Andrew Bowen	ME, PN, PP 6/2019

Copies of the CATV and CLEC agreements that have rates not based on those formulas were previously provided to Verizon.

Exhibit MSC-12
Proprietary Exhibit Omitted

Exhibit MSC-13
Proprietary Exhibit Omitted

Exhibit MSC-14
Proprietary Exhibit Omitted

Exhibit MSC-15
Proprietary Exhibit Omitted

Exhibit MSC-16
Proprietary Exhibit Omitted

Exhibit MSC-17
Proprietary Exhibit Omitted

Exhibit MSC-18
Proprietary Exhibit Omitted

Exhibit MSC-19
Proprietary Exhibit Omitted

Exhibit MSC-20
Proprietary Exhibit Omitted

Exhibit MSC-21

METROPOLITAN EDISON COMPANY, PENNSYLVANIA ELECTRIC COMPANY AND PENNSYLVANIA POWER COMPANY
v.
VERIZON PENNSYLVANIA LLC AND VERIZON NORTH LLC
Docket No. C-2020-3019347

Verizon Interrogatory Set II, No. 16

Reference Answer Brief ¶ 102 and Answer to Compl. ¶ 11.

(a) Describe in detail the basis for FirstEnergy's statement that it charges some CLECs higher rates than other CLECs "for good reasons" and due to "bargained for rates, terms and conditions."

(b) By entity, identify the "bargained for rates, terms and conditions" that justify the higher rate with citation to the relevant License Agreement provision and the cost incurred by FirstEnergy to justify the higher rate, and provide all documents concerning FirstEnergy's conclusion that it may lawfully charge some CLECs higher rates than other CLECs.

RESPONSE:

(a) Some attaching entities that have higher rates are for categorization purposes referred to as "CLECs" but are not providers of telecommunications services as defined by 47 U.S.C. § 224 and, therefore, are not entitled to lower rates under that statute. Examples include ILEC(s) operating outside of the geographic territory covered by its ILEC territory; internet-only providers; or attachers who otherwise did not verify their eligibility for the telecom rate.

(b) Verizon already has copies of the agreements related to this question, which were provided in response to Verizon Interrogatory Set I, No. 5, and the documents speak for themselves.