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Exhibit Number	:	Cal Adv–04
Commissioner	:	John Reynolds
Administrative Law Judge	:	Elizabeth Fox
Cal PA Project Mgr.	:	Ernesto Falcon
Cal PA Expert Witness	:	Darren Blackburn



Public Advocates Office
California Public Utilities Commission

ERRATA
Opening Testimony of Darren Blackburn on Voice Service Quality

Verizon Proposed Acquisition of Frontier, 2024

Application (A.) 24-10-006

(PUBLIC)

San Francisco, California
July 18, 2025

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APPENDIX A

MEMORANDUM

This report was prepared by Darren Blackburn of the Public Advocates Office at the California Public Utilities Commission (Cal Advocates) under the general supervision of the Communications and Broadband Policy Branch Program Manager, Ernesto Falcon. Attachment A to this testimony presents a statement of qualifications from Darren Blackburn. Cal Advocates is represented by attorney Scott Merrill in this proceeding.

This testimony presents Cal Advocates' analysis of the Joint Application 24-10-006 of Verizon and Frontier (Application or A.24-10-006) and recommendations regarding voice service quality. In preparing this testimony, Cal Advocates has made every effort to comprehensively review the Application and responses to discovery requests, and to prioritize its analysis and recommendations to the Commission given the schedule of this proceeding. The absence of analysis or recommendations on any item contained within the Application, the proceedings' Scoping Ruling, or data request responses does not constitute either acceptance of, or agreement with, the information in the Application.

I. INTRODUCTION AND SUMMARY OF RECOMMENDATIONS

Pursuant to Section 854 of the California Public Utilities Code, the Public Advocates Office at the California Public Utilities Commission (Cal Advocates) submits this testimony on the Application for approval of the transfer of control of Frontier California Inc. (Frontier California), Citizens Telecommunications Company of California Inc. (Citizens), Frontier Communications of the Southwest Inc. (Frontier SW), Frontier Communications Online and Long Distance Inc., and Frontier Communications of America, Inc. (collectively "Frontier") to Verizon Communications Inc. (Verizon).[1] The Assigned Commissioner's Scoping Memo and Ruling Requesting Additional Information and Ruling on Oral Motion (Scoping Memo) issued on January 13, 2025 confirms that the Application is subject to the requirements outlined in California Public Utilities Code §854. Among several topics identified in the Scoping Memo in evaluating the proposed transfer of control and whether it is in the public interest, this testimony addresses the following:

1. Whether the proposed transaction maintains or improves the quality of service to public utilities ratepayers (Pub. Util. Code §854(c)) (Scoping Memo Question 3(b)).
2. What commitments have the Applicants made, including additional investments in California, as part of this Application? What methods should the Commission use to determine whether the Applicants have met those commitments? How are these commitments in the public interest? (Scoping Memo Question 6).

A Commission decision to approve the Proposed Transaction[2] without conditions to deploy fiber in Frontier's service territory will not yield benefits for Californians. Verizon and Frontier (together "Joint Applicants") claim that the proposed transaction

[1] Joint Application for Approval of the Transfer of Control of Frontier California Inc. (U 1002 C), Citizens Telecommunications Company of California (U 1024 C), Frontier Communications of the Southwest Inc. (U 1026 C), Frontier Communications Online and Long Distance Inc. (U 7167 C), and Frontier Communications of America, Inc. (U 5429 C), to Verizon Communications Inc. Pursuant to California Public Utilities Code Section 854 (A.) 24-10-006), filed October 18, 2024, last accessed 3/25/2025.

[2] A.24-10-006.

will "maintain or improve" service quality.[3] However, Frontier's voice service quality in California frequently falls below standards. Simply "maintaining" the level of service quality provided by Frontier would fail to provide the consumer benefits required by Public Utilities Code §854(c) et seq.[4] The Commission has had evidence of the Joint Applicants' substandard voice service quality for years, as documented in proceedings and reports such as the testimony submitted by Dr. Ayat Osman[5] regarding the Application 15-03-005 to transfer control of assets from Verizon California to Frontier (2015 Acquisition),[6] the Network Exam,[7] the 2020 Communications Division Report about Frontier,[8] and the testimony submitted by Cameron Reed[9] regarding Frontier's Application 20-05-010 requesting approval for restructuring (2020 Restructuring).[10] The Commission should consider Frontier's compliance and performance regarding voice service quality from year to year to inform its decision in this proceeding. If the Commission approves the proposed transaction, Verizon will inherit Frontier's existing service quality problems and the responsibility to address them. Frontier's voice service quality failures largely stem from its legacy copper network infrastructure. The Joint Applicants acknowledge that, "Fiber deployment results in service improvements, for

[3] A.24-10-006, p. 17.

[4] Public Utilities Code 854(c)(2).

[5] Cal Adv-08, Exhibit B-1 Dr. Ayat Osman. Office of Ratepayer Advocates Testimony and Recommendations Regarding Service Quality on Voice Services CONFIDENTIAL. (A.15-03-005), filed July 28, 2015.

[6] *Joint Application for Approval of Transfer of Control Over Verizon California Inc. and Related Approval of Transfer of Assets and Certifications*. (A.15-03-005), filed March 18th, 2015.

[7] Exhibit B-2 Network Exam of AT&T and Frontier/Verizon (Network Exam). Phase I 2010 – 2017, filed April 2019 and Exhibit B-3 Network Exam of AT&T and Frontier/Verizon (Network Exam) Phase II 2018 – 2019, filed July 2021.

[8] Exhibit B-4 Report About Frontier: Collection of Facts. October 28th, 2020.

[9] Exhibit B-5 Cameron Reed. Public Advocates Office Testimony on the Proposed Restructuring of Frontier Communications: Impacts on Frontier's Service Quality and 9-1-1 Network CONFIDENTIAL. (A.20-05-010), filed September 30, 2020.

[10] Application of Frontier Communications Corporation for Determination that Corporate Restructuring is Exempt from or Compliant with PU Code Section 854 (A.24-10-006), May 22nd, 2020.

both voice and broadband services,"[11] yet they offer no specific plans to expand Frontier's fiber footprint in California. If the Commission approves the Proposed Transaction absent conditions to improve service quality, it may forfeit public interest benefits such as enhanced network reliability and fewer outages. The Commission should not approve the Proposed Transaction without conditions designed to improve voice service quality and ensure that the transaction is in the public interest. As outlined in the testimony of Cal Advocates' witness Lucas Duffy,[12] the Commission should require Verizon to replace copper wirelines with fiber to address voice service quality failures in California.

II. SCOPE OF THIS TESTIMONY

The Scoping Memo provides that the Commission will evaluate the Application under California Public Utilities Code § 854 et seq. to determine if the Proposed Transaction is beneficial to the public.[13] This testimony examines and compares the quality of voice service delivered over the Joint Applicants' copper and fiber network infrastructure.

The analysis below regarding Frontier and Verizon's respective voice service quality performance is organized by the following metrics: 1) Out of Service (OOS) Repair Interval 2) Customer Trouble Reports and 3) Customer Complaints. Frontier's service quality data is derived from GO 133-D reporting on certain standard metrics[14] applied to time division multiplexing (TDM) voice service and data request responses from the company. Analysis of Frontier's interconnected Voice over Internet Protocol (VoIP) service quality is based on the Joint Applicants' responses to Cal Advocates' data requests.

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[11] A.24-10-006, p. 18.

[12] A.24-10-006. Cal Adv. 02 - Testimony of Lucas Duffy: Executive Summary of Cal Advocates Testimony & Proposed Transaction Conditions. *See* Summary of Recommended Merger Conditions.

[13] A.24-10-006 Assigned Commissioner Scoping Memo and Ruling Requesting Additional Information and Ruling on Oral Motion, January 13, 2025, p. 3.

[14] GO 133-D Metrics assessed in this testimony are Out of Service Repair Interval and Customer Trouble Reports.

In California, Frontier offers residential and business local exchange telephone service using TDM, more commonly known as Plain Old Telephone Service (POTS), over copper and interconnected VoIP.[15] While Verizon serves a relatively small number of enterprise customers in California via its Competitive Local Exchange Carrier (Verizon Business),[16] Verizon does not provide fixed voice service to residential or small business customers as an ILEC in California, so it is not required to report on service quality metrics under GO 133-D.[17] Verizon does, however, provide POTS service in New York State.[18] This testimony reviews Verizon's performance on certain service quality metrics from the company's operation in New York State to provide the Commission with a better understanding of the Verizon's current voice service quality outcomes and performance metrics.

The New York Public Service Commission (NYPSC) requires Verizon New York Inc. (Verizon NY) to report on voice service quality in accordance with a tailored set of requirements and standards referred to as the "Service Quality Improvement Plan" (SQIP).[19] The SQIP was adopted in 2010; it mandates that Verizon NY need only report Timeliness-of-Repair metrics for its "core customers." Core customers are those who: 1) lack wireline alternatives to Verizon NY, 2) subscribe to Lifeline, and 3) have special needs (e.g., elderly, people with disabilities, other special conditions).[20] In Q3 of 2024, core customers accounted for 3.4% of Verizon NY's total access lines, and 2.5% of these

[15] GO 133-D § 1.3(m), p. 3.

[16] Exhibit B-6 Verizon Narrative Response to Cal Advocates Data Request 02 (Dec 27, 2024), p. 5 and Exhibit B-7 Verizon Response to Data Request 02 Question 2.2 Attachment VZ_PAO_0002090_CONIDENTIAL.xlsx.

[17] GO 133-D § 1.3(c)(g), p. 2.

[18] Exhibit B-6, p. 5 and Exhibit B-8 Verizon Response to Data Request 02 Question 2.2 Attachment VZ_PAO_0002091_CONIDENTIAL.xlsx.

[19] Exhibit B-9 Case 10-C-0202, Verizon Service Quality Improvement Plan, Order Adopting Verizon New York Inc.'s Revised Service Quality Improvement Plan with Modifications (issued December 17, 2010).

[20] Exhibit B-9, p. 5.

core customers are those who lack alternative providers.[21] Verizon and Frontier's responses to Cal Advocates' data requests and other publicly available information supplement the mandatory reporting data identified above.

Beyond service quality performance, voice service subscribership trends support that approval of the Proposed Transaction should include fiber buildout requirements. In general, both Verizon NY's[22] and Frontier's[23] fixed voice subscribers have declined substantially over the past five years with the largest loss from POTS customers. Between May 2021 and June 2024,[24] despite the overall decline in subscribership for fixed voice service, the average number of completed orders for Frontier's Fiber-to-the-Premise (FTTP) voice services was significantly higher than legacy copper service.[25] As evidenced by the following testimony, Frontier's fiber networks tend to perform better than its copper networks across critical service quality metrics, most notably the Out of Service (OOS) Repair Interval standard. The Joint Applicants acknowledge this reality,[26] yet they make no commitments, outside of Frontier's existing deployment plans, to upgrade legacy copper infrastructure to fiber. To ensure the Proposed Transaction yields

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[21] Exhibit B-10 Verizon NY Service Quality Reports 2020-2024. See Case 20-C-0193 3Q2024 Verizon Service Quality Report, p. 3.

[22] Exhibit B-6, p. 5, and Exhibit B-8 Verizon's Response to Data Request 02 Question 2.2 Attachment VZ_PAO_0002091_CONFIDENTIAL.xlsx. As of June 2024, Verizon's New York ILEC had about **<<BEGIN VERIZON CONFIDENTIAL>>** [redacted] **<<END VERIZON CONFIDENTIAL>>** total POTS and **<<BEGIN VERIZON CONFIDENTIAL>>** [redacted] **<<END VERIZON CONFIDENTIAL>>** VoIP subscribers.

[23] Exhibit B-11 Frontier Narrative Response to DR 02 Part 3 p. 6 and Exhibit B-12 Frontier Response to Data request 02 Question 2.2 Attachment "FTR DR 2.2 (Monthly Voice Subscriptions) [CONFIDENTIAL] (FTR005851).xlsx" As of June 2024, Frontier had about **<<BEGIN FRONTIER CONFIDENTIAL>>** [redacted] **<<END FRONTIER CONFIDENTIAL>>** TDM and **<<BEGIN FRONTIER CONFIDENTIAL>>** [redacted] **<<END FRONTIER CONFIDENTIAL>>** VoIP business and residential subscriptions in California.

[24] Exhibit B-6, p. 29. Verizon did not provide monthly service order data in New York State as requested by Cal Advocates in Data Request 02 Question 2.22.

[25] Exhibit B-13 Frontier Response to Dr 02 Attachment "Frontier Response to Cal Advocates DR 2.21 (Voice Service Orders) [CONFIDENTIAL].xlsx." Between May 2021 and June 2024, the three Frontier ILECs filled about **<<BEGIN FRONTIER CONFIDENTIAL>>** [redacted] **<<END FRONTIER CONFIDENTIAL>>** copper and **<<BEGIN FRONTIER CONFIDENTIAL>>** [redacted] **<<END FRONTIER CONFIDENTIAL>>** fiber orders for residential and business fixed voice service.

[26] A.24-10-006, p. 21.

the public benefits the application alleges,[27] and the Public Utilities Code requires,[28] the Commission should not approve the Application without conditions to improve voice service quality.

III. FRONTIER'S VOICE SERVICE OUTAGES

This section evaluates Frontier's TDM voice service outages and their compliance history with service quality standards established by GO 133-D.[29] In addition, the following analysis compares outages associated with copper and fiber infrastructure. If the Commission approves the Proposed Transaction, Verizon will acquire Frontier's network infrastructure, which often underperforms on the GO 133-D OOS Repair Interval standard. This section omits discussion of Verizon's outage data because its California enterprise customers are exempt from GO 133-D standards. The data presented in this section is from GO 133-D reports, Frontier's responses to Cal Advocates' data requests, and compliance records related to Frontier's 2020 Restructuring proceeding.[30]

The Commission monitors and enforces GO 133-D voice service quality standards on traditional, circuit-switched technologies by establishing certain minimum standards of service, which ILECs like Frontier report quarterly.[31] Currently, these reporting and compliance requirements do not apply to VoIP services. Frontier reports its OOS Repair Interval, Customer Trouble Report Rate, and Answer Time[32] metrics to comply with GO 133-D. Also, as a settlement condition to approve the 2015 Acquisition, Frontier

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[27] A. 24-10-006, p. 3.

[28] P.U. Code § 854(c).

[29] The Commission requires Frontier to report GO-133-D metrics for its TDM customers only. Verizon does not report GO 133-D OOS data in California. However, in New York state, Verizon's Customer Trouble Report Rate reporting in New York contains relevant information about Verizon's outage metrics. Verizon's Customer Trouble Report Rate in New York and some discussion of the associated outages is present in Section IV of this testimony.

[30] A.20-05-010.

[31] As a Uniform Regulatory Framework (URF) Independent Local Exchange Carriers (ILEC), Frontier reports Customer Trouble Reports, OOS Repair Intervals, and Answer Time metrics to demonstrate compliance with GO 133-D.

[32] This testimony does not include an analysis of Frontier's performance on the Answer Time metric. However, the Commission should note that Frontier regularly fails to meet this GO 133-D standard.

California submitted service quality results regarding its VoIP service residential VoIP service for three years starting in 2017, which included OOS Repair Interval.[33] In addition, Frontier reports Major Service Interruptions[34] affecting its POTS and VoIP customers to the FCC and the Commission.[35] Failure to meet the GO 133-D minimum standards constitutes unsafe and unreliable telephone service and violates Commission rules.[36]

As evidenced by the analysis below, fiber infrastructure maintains better quality service for POTS and VoIP customers. The Network Exam[37] found that, "Wire centers upgraded to Fiber-to-the-Premises (FTTP) capable of providing FiOS broadband services achieve better service quality performance scores in virtually every category."[38] In fact, the Joint Applicants tout that their fiber services are, "known for their 99.9% reliability and high speeds … with fewer customer calls for service related issues."[39] With a greater number of outages occurring across their copper network, Frontier's current outage data aligns with the Network Exam findings. The Commission should ensure that when Verizon determines "how best to address Frontier's service quality and compliance with

[33] D.15-12-005 Appendix F. Joint Motion of Frontier Communications Corporation, Frontier Communications of America, Inc., The Utility Reform Network, the Office of Ratepayer Advocates and the Center for Accessible Technology for Approval of Partial Settlement. Settlement Condition #8, p. 5.

[34] Major Service Interruptions are significant degradations in the ability of customers to use communications services as a result of failure in the service provider's network.

[35] 47 Code of Federal Regulations (CFR) 4.5 § (a). Exhibit B-14 Frontier Response to Data Request 02 Question 2.23 Attachment "FTR DR 2.23 (Voice Outages) [CONFIDENTIAL] (FTR005865).xlsx." This dataset includes outages that meet the criteria for the Network Outage Reporting System (NORS).

[36] See D.16-08-021, Decision Adopting General Order 133-D, p. 32, Finding of Fact 5.

[37] The Commission ordered the preparation of a comprehensive review (Network Exam) of the conditions of the networks of the larger ILECs operating in California, AT&T, Frontier, and Verizon (Note: Frontier acquired Verizon's California wireline assets while the Network Exam was being produced). This report examined local telecommunications networks and related policies and practices of AT&T California and Frontier California and covered the time period 2010 – 2017.

[38] Exhibit B-12 Network Exam Phase I Ch. 4F Service Quality Analysis: Verizon/Frontier, p. 283. Note: Fiber Optic Service (FiOS).

[39] A.24-10-006, p. 21.

General Order 133's service metrics,"[40] that it does so with robust and long-lasting infrastructure improvements, like replacing copper with fiber.

A. Frontier's Frequent and Lengthy Outages Indicate Poor Service Quality

Between 2019 and 2024, Frontier failed to consistently meet the GO 133-D OOS Repair Interval standard.[41] The OOS standard measures the time it takes to restore service after an out-of-service trouble report or an outage. GO 133-D requires telephone companies to restore voice service within 24 hours of a reported outage, and they must, at least, meet this requirement for 90% of their adjusted total outages each month.[42] Frontier provides quarterly reports containing both monthly adjusted and unadjusted OOS repair interval metrics. However, the adjusted OOS metrics, which exclude Sundays, federal holidays, and circumstances where maintenance is delayed due to reasons beyond the carrier's control,[43] determine compliance with GO 133-D minimum standards.

In 2024, using a weighted average based on proportion of working lines[44] held by each ILEC, Frontier complied with the OOS standard about 33% of the time.[45] Table 1 shows the percentage of months that each Frontier ILEC met the OOS standard and the total average percent compliance between 2019 and 2024. Figure 1 presents a detailed record of Frontier's compliance by month.

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[40] A.24-10-006, p. 21.

[41] See 2019 – 2024 GO 133-D Quarterly Service Quality Reports for: Frontier California, Frontier Communications/Citizens, and Frontier Communications of the Southwest. Available at: https://www.cpuc.ca.gov/industries-and-topics/internet-and-phone/network-performance-and-public-safety/telecommunications-carriers-service-quality-reports, last accessed May 21, 2025.

[42] GO 133-D § 3.4(c).

[43] GO 133-D, § 3.3(b).

[44] See 2024 GO 133-D Quarterly Service Quality Reports for: Frontier California, Frontier Communications/Citizens, and Frontier Communications of the Southwest. The percent of working lines for each Frontier ILEC shown in Table 1 reflect the average number of working lines reported in December 2024.

[45] Exhibit B-15 Analyst Work Paper for Section III(A).xlsx. Sheet "Table 1." Weighted Average = (Frontier California % working lines x % OOS standard met in 2024) + (Frontier Citizens % working lines x % OOS standard met in 2024) + (Frontier Southwest % working lines x the % OOS standard met in 2024).

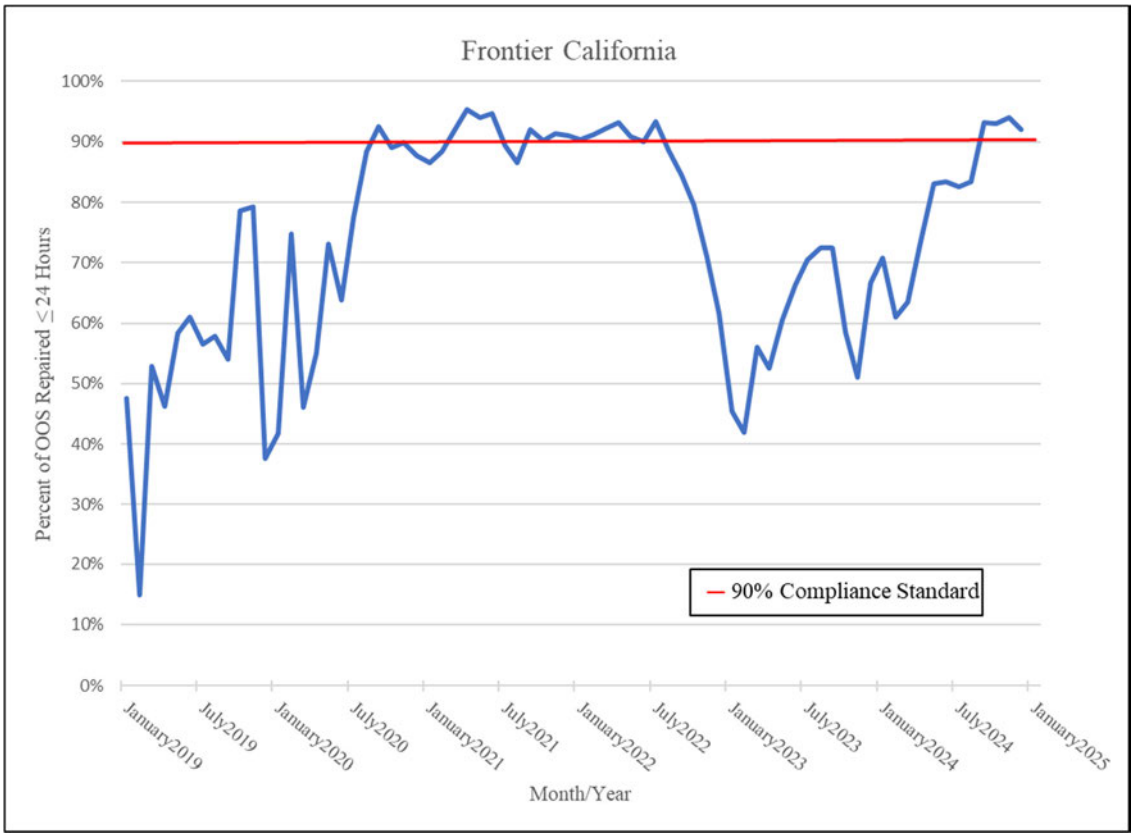
Table 1: Percentage of Months that Frontier Met the GO 133-D Out of Service Repair Interval Standard, 2019-2024[46]

Frontier ILEC (% of total working lines)[47]	2019	2020	2021	2022	2023	2024	2019 -2024 Average
Frontier California (89%)	0%	8%	67%	58%	0%	33%	**28%**
Frontier Citizens (10%)	0%	33%	83%	50%	0%	33%	**33%**
Frontier Southwest (1%)	0%	50%	100%	58%	42%	50%	**50%**

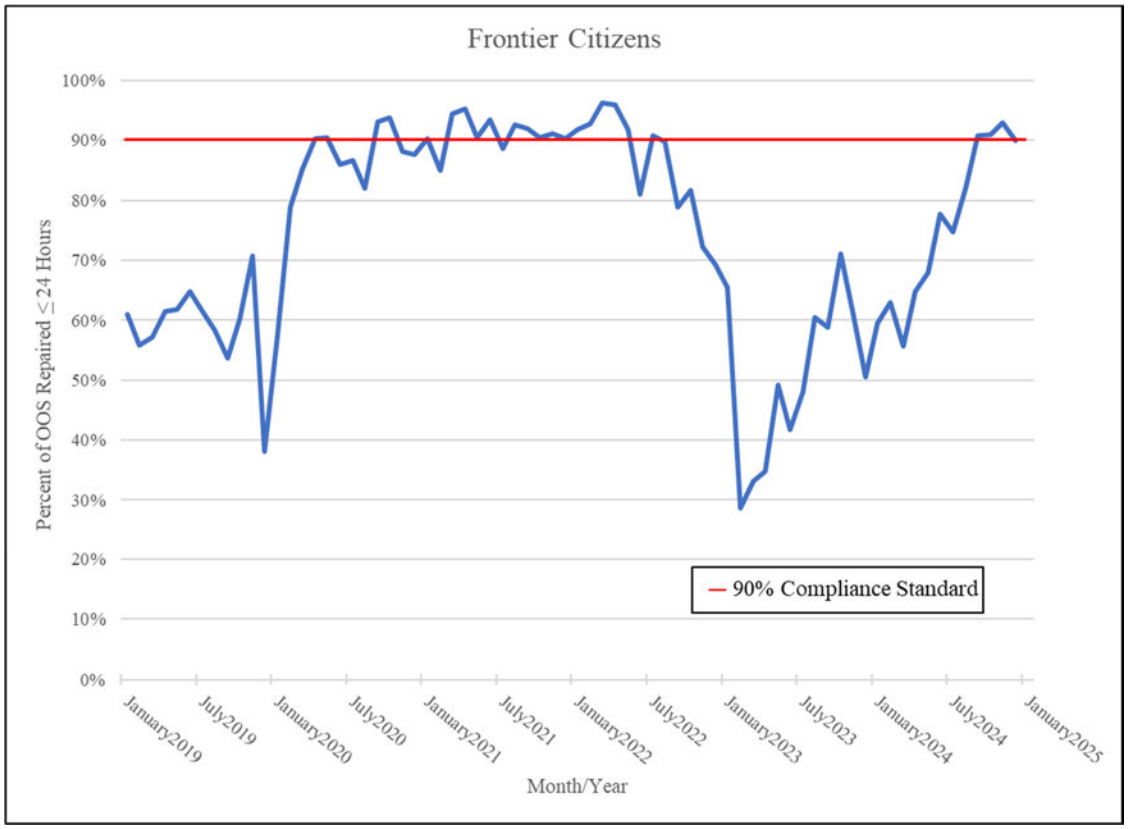
[46] Exhibit B-15 Sheet "Table 1." The yearly percent compliance for each Frontier ILEC was calculated by dividing the number of months the ILEC met the OOS standard by 12 months in a year. The percent of working lines was calculated by dividing the December 2024 number of working lines of each ILEC by the total number of Frontier working lines.

[47] The percent of total working lines in this table uses the December 2024 GO 133-D Service Quality Reports.

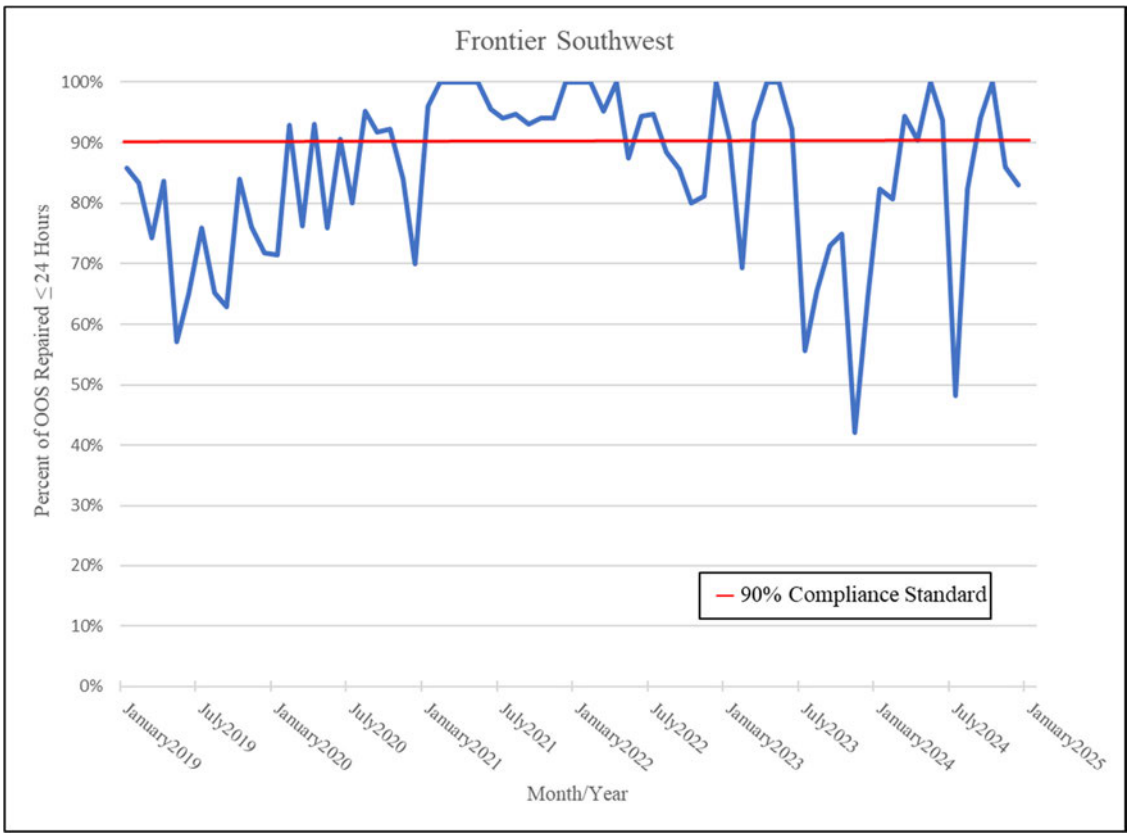
Figure 1: Percent of Frontier's Out of Service Repair Tickets Restored ≤ 24 Hours, January 2019 – December 2024[48]



[48] Exhibit B-15 Sheet "Figure 1."


Frontier Citizens
Percent of OOS Repaired ≤ 24 Hours
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
January2019
July2019
January2020
July2020
January2021
July2021
January2022
July2022
January2023
July2023
January2024
July2024
January2025
Month/Year
90% Compliance Standard

1


Frontier Southwest
Percent of OOS Repaired ≤ 24 Hours
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
January2019
July2019
January2020
July2020
January2021
July2021
January2022
July2022
January2023
July2023
January2024
July2024
January2025
Month/Year
90% Compliance Standard

2

Frontier California is the largest of the three ILECs (making up about 89% of Frontier's working lines) and exhibits the worst performance on the OOS metric.[49] Frontier has shown greater compliance in recent months, coinciding with the lead-up to the Proposed Transaction discussed in this testimony. In fact, this pattern of improved service quality leading up to Commission-approved transactions is not new. There was a notable improvement in Frontier's OOS performance in 2021 that coincided with the Commission's evaluation of its application for authorization for corporate restructuring following its declaration of bankruptcy.[50] The Network Exam and the Commission's Decision (15-12-005) in the 2015 Acquisition also made this observation.[51] This pattern could indicate that Frontier is able to improve service quality quickly given sufficient incentives.

GO 133-D requires telephone companies to report adjusted and unadjusted outage durations. The Commission uses the adjusted data to determine compliance; however, the unadjusted outage durations are important because they reflect the actual time customers are without access to essential voice service. Long outages are especially harmful during an emergency. The California Office of Emergency Services (CalOES) reported that, in 2023, nearly 2.9 million 9-1-1 calls originated from wireline and VoIP telephone services.[52] Customers without voice service during an outage are often unable to dial 9-1-1, receive evacuation notifications, or contact family and friends for assistance. In addition, outages can inhibit customers from conducting business and maintaining their regular communication needs. Between January 2019 and December 2024, Frontier's

[49] See Figure 1 and 2019 - 2024 GO 133-D Quarterly Service Quality Reports for: Frontier California, Frontier Communications/Citizens, and Frontier Communications of the Southwest.

[50] See July 2020 - July 2022 in Figure 1.

[51] Exhibit B-3, p. 217; D.15-12-005, Decision Granting Application Subject to Conditions and Approving Related Settlements, December 9, 2015, p. 67.

[52] CalOES. "State 9-1-1 Advisory Board" (2024). Available at: https://www.caloes.ca.gov/wp-content/uploads/PSC/Documents/9-1-1-Advisory-Board-Slides-May-2024-Final.pdf, last accessed March 18, 2025.

combined[53] average unadjusted outage duration was 81 hours and 2 minutes.[54] Table 2 shows the aggregated average outage duration for the past six years.

Table 2: Frontier's Average Yearly Out of Service Repair Unadjusted Outage Durations, January 2019 – December 2024 (Hour: Minute)[55]

Frontier ILEC (% of total working lines)[56]	2019	2020	2021	2022	2023	2024	2019-2024 Average
Frontier California (89%)	89:82	28:24	49:58	74:94	124:07	84:53	74:07
Frontier Citizens (10%)	62:62	577:04	15:18	23:50	102:21	28:54	134:87
Frontier Southwest (1%)	32:01	20:47	34:31	15:98	72:63	31:48	34:13

Between 2019 and 2024, 93% of Frontier California's monthly average unadjusted outage durations were more than 24 hours.[57] Regardless of the day (e.g., Sundays and holidays) or the cause (e.g., natural disasters), an outage that leaves customers without voice service for extended periods constitutes a public safety risk.[58] Compared to the adjusted data used to determine compliance with GO 133-D, unadjusted outage duration data more accurately describes of the impact outages have on Frontier's customers. The average durations of Frontier's outages often exceeds acceptable standards and are highly variable with no consistent improvement over the past six years (Table 2).[59]

[53] Combined data for Frontier California, Citizens and Southwest.

[54] Exhibit B-15 Sheet "Table 2." This average includes outliers. Regardless of an event that causes an outage, it is important for the Commission to understand that actual approximate durations that customers have been left without voice service. The April 2020 GO 133-D outage duration data that Frontier Citizens reported to the CPUC contained an outlier of "6421.22." Omitting this outlier brings the combined average unadjusted outage duration down to 51 hours and 29 minutes.

[55] Exhibit B-15 Sheet "Table 2."

[56] The percent of total working lines in this table uses the December 2024 GO 133-D Service Quality Reports.

[57] Exhibit B-15 Sheet "Table 2."

[58] See Public Utilities Code § 451. "Every public utility shall furnish and maintain such adequate, efficient, just, and reasonable service, instrumentalities, equipment, and facilities, including telephone facilities, as defined in Section 54.1 of the Civil Code, as are necessary to promote the safety, health, comfort, and convenience of its patrons, employees, and the public."

[59] 2019 - 2024 GO 133-D Quarterly Service Quality Reports for: Frontier California, Frontier Communications/Citizens, and Frontier Communications of the Southwest.

The OOS Repair Interval data discussed in this section does not include Frontier's VoIP customers because GO 133-D only applies service quality standards and reporting to TDM customers. Pursuant to Commission Decision D.15-12-005,[60] Frontier California submitted service quality reports for its VoIP service from 2017 to 2019. Cal Advocates' witness Cameron Reed's testimony in the 2020 Restructuring proceeding showed that the three-year average for OOS Repair Intervals completed within 24 hours was 67.4% and the average outage duration was 34 hours and 50 minutes.[61] This indicates that, if the Commission applied GO 133-D's requirements to VoIP, Frontier's service quality during this time period would be substandard. Mr. Reed's analysis also noted that the causes of Frontier's OOS repair tickets seem to "originate overwhelmingly from deteriorating network infrastructure."[62]

Frontier's failure to consistently meet the OOS Repair Interval standard substantiates that the Commission should not approve the Proposed Transaction without conditions that will result in consistent compliance with the OOS Repair Interval standard.[63] The following section provides evidence that fiber infrastructure provides greater reliability and better performance outcomes for fixed voice service. If the Commission approves the Proposed Transaction, it should require Verizon to replace Frontier's copper network with fiber because it will substantially improve the company's ability to comply with the OOS Repair Interval standard.[64]

[60] D. 15-12-005 Appendix F. Joint Motion of Frontier Communications Corporation, Frontier Communications of America, Inc., The Utility Reform Network, the Office of Ratepayer Advocates and the Center for Accessible Technology for Approval of Partial Settlement. Settlement Condition #8, p. 5.

[61] Exhibit B-5, p. 15; Table 6.

[62] Exhibit B-5, p. 15; Lines 16 – 17.

[63] D.15-12-005 Appendix F. Settlement Condition #8, p. 5.

[64] A.24-10-006. Cal Adv. 02 – Testimony of Lucas Duffy: Executive Summary of Cal Advocates Testimony & Proposed Transaction Conditions. *See* Summary of Recommended Merger Conditions.

B. Frontier's Fiber Network Infrastructure is Associated with Fewer Outages than its Copper Infrastructure

Between May 2021 and June 2024, Frontier's copper network infrastructure experienced a significantly higher number of outages compared to its fiber network. At the end of Q3 2024, about **<<BEGIN FRONTIER CONFIDENTIAL>>** [redacted] **<<END FRONTIER CONFIDENTIAL>>** of Frontier's voice customers had POTS service.[65] The outage data analyzed in this section is derived from Frontier's response to Cal Advocates' data requests. In total, **<<BEGIN FRONTIER CONFIDENTIAL>>** [redacted] **<<END FRONTIER CONFIDENTIAL>>** voice outages occurred across Frontier's copper and fiber networks between May 2021 and June 2024.[66] The outage data Frontier provided was largely incomplete as to whether each outage was associated with fiber or copper network infrastructure.[67] However, **<<BEGIN FRONTIER CONFIDENTIAL>>** [redacted] **<<END FRONTIER CONFIDENTIAL>>** of the outages reported in this dataset associate the cause of the outage with either its copper or fiber network infrastructure.[68] Table 3 isolates this subset from the larger dataset to compare the number of outages associated with copper and fiber infrastructure. The difference in the number of fiber outages compared to copper in shown in Table 3 shows that fiber delivers more reliable service than copper. For example, in 2023, only **<<BEGIN FRONTIER CONFIDENTIAL>>** [redacted] **<<END FRONTIER CONFIDENTIAL>>** of the subset voice outages are associated with fiber infrastructure.[69]

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[65] Exhibit B-22 Q2.44, p. 32, Exhibit B-22 Frontier response to DR 02 Attachment Question 2.44 Supp. Response DR 2.44 (OP 4.m.i-iv) CONFIDENTIAL.xlsx. and Exhibit B-16 Sheet "Q1-3 2024 Wire Centers."

[66] Exhibit B-14. Sheets "Matrix 4" and "Matrix 5."

[67] Cal Advocates asked Frontier to provide the end user technology for each outage, but it was unable to do. However, about 14% of the outage data provided by Frontier clearly link Fiber or Copper to portions of their "Network Infrastructure." See Exhibit B-14 Sheets "Matrix4" and "Matrix5" Column K "I Network infrastructure."

[68] Exhibit B-16 Analyst Work Paper for Section III(B) CONFIDENTIAL.xlsx. Sheet "Table 3."

[69] Exhibit B-13 and Exhibit B-16 Sheet "Table 3."

Table 3: Number of Outages Associated with Frontier's Copper and Fiber Network Infrastructure, May 2021 – June 2024[70]



<<END FRONTIER CONFIDENTIAL>>

Paul Sullivan, Vice President of Wireline Network Operations for Verizon, states, "Fiber deployment results in service improvements, for both voice and broadband services."[71] Mr. Sullivan elaborates that fiber technology is more resilient, reliable, efficient, and durable than copper and it is "much less vulnerable to many environmental factors that affect copper cable."[72] Frontier's outage reports support this assertion. The subset of outages associated with the copper network account for **<<BEGIN FRONTIER CONFIDENTIAL>>** [redacted] **<<END FRONTIER CONFIDENTIAL>>** of the total outages shown in Table 3, while fiber accounts for **<<BEGIN FRONTIER CONFIDENTIAL>>** [redacted] **<<END FRONTIER CONFIDENTIAL>>**. Furthermore, copper is more likely to be vandalized or stolen than fiber. Of the total **<<BEGIN FRONTIER CONFIDENTIAL>>** [redacted] **<<END FRONTIER CONFIDENTIAL>>** incidents of vandalism/theft that occurred between May 2021 and June 2024 that caused an outage, only **<<BEGIN FRONTIER CONFIDENTIAL>>** [redacted] **<<END FRONTIER CONFIDENTIAL>>** are associated with fiber.[73] In Q3 2024, as part of the ongoing independent compliance monitoring ordered as a condition to Frontier's settlement to approve its 2020

[70] Exhibit B-13 and Exhibit B-16 Sheet "Table 3."

[71] A.24-10-006. Paul Sullivan. Opening Testimony for Verizon Communications Inc. [Public Version – Confidential Information Redacted] January 24, 2025, p. 10.

[72] A.24-10-006. Paul Sullivan Opening Testimony, p. 10.

[73] Exhibit B-13 and Exhibit B-16 Sheet "Table 3." The total incidents of vandalism/theft are from the subset of data extracted for Table 3.

Restructuring, the Compliance Monitor asked Frontier to explain why OOS rates continued to miss GO 133-D thresholds.[74] Frontier identified two issues impacting their service quality performance: **<<BEGIN FRONTIER CONFIDENTIAL>>** [redacted] **<<END FRONTIER CONFIDENTIAL>>**[75] Considering the high proportion of copper related outages, the analysis above indicates that replacing copper infrastructure with fiber will reduce the number of service disruptions that impact customers.

Frontier's overall network availability data[76] shows that the copper portion of its network experiences significantly more downtime compared to fiber. Between May 2021 and November 2024, the total customer outage hours on Frontier's copper network was about **<<BEGIN FRONTIER CONFIDENTIAL>>** [redacted] **<<END FRONTIER CONFIDENTIAL>>** while the fiber network totaled **<<BEGIN FRONTIER CONFIDENTIAL>>** [redacted] **<<END FRONTIER CONFIDENTIAL>>** hours.[77] The greater downtime of Frontier's copper network compared to its fiber network supports the need for a conditional commitment from Verizon to replace Frontier's failing copper infrastructure with fiber. This transition will significantly improve network reliability with less downtime and fewer customer outage hours.

[74] Exhibit B-19 Dr. David P. Reed. July – December 2024, CONFIDENTIAL: Semi-Annual Frontier Compliance Report 5th Review of Frontier's Compliance to CPUC Decision 21-04-008 & Attached Settlement Agreements, p. 27.

[75] Exhibit B-19, p. 27.

[76] The network availability data and totals provided in this paragraph include all services (e.g., Data, TDM/SS7, Video, etc.).

[77] Exhibit B-20 Frontier Narrative Response to DR 02 Part 1, Exhibit B-21 Frontier Response to Cal Advocates Attachment DR 2.12 (Network Availability) [CONFIDENTIAL].xlsx, and Exhibit B-16 Sheet "Network Availability."

Wire centers[78] with a higher proportions of Fiber Voice/VoIP customers compared to POTS generally have fewer outages per customer. As of September 2024, Frontier operated **<<BEGIN FRONTIER CONFIDENTIAL>>** [redacted] **<<END FRONTIER CONFIDENTIAL>>** wire centers in California.[79] The fixed voice customers connected to these wire centers are either POTS or Fiber Voice/VoIP customers. About **<<BEGIN FRONTIER CONFIDENTIAL>>** [redacted] **<<END FRONTIER CONFIDENTIAL>>** of these wire centers only have copper customers.[80] In addition, only about **<<BEGIN FRONTIER CONFIDENTIAL>>** [redacted] **<<END FRONTIER CONFIDENTIAL>>** wire centers have more than 50% Fiber Voice/VoIP customers.[81] Figure 3 shows the relationship between the average number of outages per customer[82] and the percentage of fiber customers[83] for each wire center between Q1 and Q3 2024.

[78] GO 133-D § 1.3(y) defines a wire center as, "A facility composed of one or more switches (either soft switch or regular switch) which are located on the same premises and which may or may not utilize common equipment. In the case of a digital switch, all remote processors that are hosted by a central processor are to be included in the central office wire center."

[79] Exhibit B-22 Q2.44, p. 32, Exhibit B-22 Frontier response to DR 02 Attachment Question 2.44 Supp. Response DR 2.44 (OP 4.m.i-iv) CONFIDENTIAL.xlsx, and Exhibit B-16 Sheet "Q1-3 2024 Wire Centers."

[80] These wire centers have no Fiber Voice customers.

[81] Exhibit B-21 and Exhibit B-16 Sheet "Q1-3 2024 Wire Centers." The customer counts are split between POTS, Fiber Voice and VoIP. Fiber Voice and VoIP totals are the same, so Fiber Voice data was used in this analysis.

[82] The number of outages per customer was calculated by dividing the total number of outages in each quarter by the average number of POTS and Fiber Voice customers for each wire center, Q1-3 2024.

[83] The percent of fiber customers was calculated by dividing the average number of Fiber Voice customers by the total number of customers (POTS + Fiber Voice) for each wire center, Q 1-3 2024.

Figure 3: Average Outage Per Customer and Percent of Fiber Voice Customers for each Frontier Wire Center, January 2024 – September 2024[84]

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Each data point shown in Figure 3 represents an individual wire center. The number of outages per customer and the percentage of customers subscribed to Frontier's Fiber Voice/VoIP service is an average of the totals reported for quarters one, two and three in 2024. Wire centers with a higher proportion of fiber customers tended to experience less outages on a per customer basis (Figure 3). Similarly, the Network Exam found that, "The Operating Areas within which most of the Verizon and Frontier FTTP upgrades have occurred have experienced the lowest number of OOS incidents and shortest outage durations for those that do occur."[85]

It is unclear how Verizon's processes and systems designed to optimize network performance will differ from the tools Frontier uses in California.[86] The Joint Applicants

[84] Exhibit B-22 and Exhibit B-16 Sheet "Figure 2."

[85] Exhibit B-2 Phase I, Chapter 4F, p. 1.

[86] Exhibit B-26 Verizon Narrative Response to Cal Advocates Data Request 01 (Nov 22 2024), Q1.5. Cal Advocates asked the Joint Applicants for specific transaction benefits that will result from the Proposed Transaction and their response did not identify benefits or specific improvements beyond what they stated in their Application.

state that, "Verizon will utilize its innovative tools and technology to further Frontier's network reliability by deploying systems that aim to identify network problems on a prospective basis and resolve them rapidly if they do occur."[87] They provide no specific examples or comparisons to explain how Verizon's tools and technology associated with its "Network Reliability Program"[88] are superior to Frontier's existing network monitoring processes. However, the substantial difference in downtime between the copper and fiber networks stated above is unambiguous evidence that upgrading Frontier's copper infrastructure to fiber will improve network reliability.

The Commission should recognize that imposing financial penalties on Frontier for missing performance targets has been largely ineffective in achieving consistent compliance with the OOS standard. For example, despite the additional financial penalties[89] applied to Frontier for non-compliance with Condition B.6 of the 2020 Restructuring settlement agreement,[90] Figure 2 shows that the three ILECs fell out of compliance in August 2022. The Compliance Monitor assigned to report on the status and compliance pursuant to Frontier's 2020 Restructuring settlement agreement noted that, **<< BEGIN FRONTIER CONFIDENTIAL >>** [redacted] **<< END FRONTIER CONFIDENTIAL >>**[91] The financial penalties Frontier incurred for its lack of compliance following its restructuring have not sufficiently motivated the company to consistently comply with the OOS standard. Considering that frequent and lengthy outages often cut off access to 9-1-1 and other emergency services, a more reliable voice network will enhance public safety. Unlike the additional financial penalties designed to

[87] A.24-10-006, p. 19.

[88] A.24-10-006, p. 19.

[89] Settlement Condition B.6 applies additional penalties to be calculated on percentage basis based on the number of access lines of each Frontier ILEC.

[90] Condition B.6 of the 2021 Restructuring settlement agreement required Frontier to restore at least 80% of outages within 24 hours for each month in 2022. In 2023 and 2024, the threshold increased to 90%.

[91] Exhibit B-19, p. 4.

incentivize compliance with the OOS Repair Interval standard, replacing legacy copper infrastructure with fiber will ensure significant long-lasting improvements to voice service quality in California.

C. Recommendations Regarding Out of Service Repair Interval and Outages.

The analysis in this section establishes that frequent lengthy outages prevent Frontier from maintaining compliance with the GO 133-D OOS Repair Interval standard. The Joint Applicants claim that the Proposed Transaction will maintain or improve service quality[92] without providing any firm commitments or plans detailing how they will bring Frontier's network into consistent compliance with the OOS standard. The Commission should not take these claims on faith, particularly given Frontier's demonstrated history of failing to meet its obligations and performance targets, as described above. Firm and explicit conditions to improve voice service quality are necessary to satisfy the requirements of Public Utilities Code §854(c) and ensure that the transaction is in the public interest.

Statements made by the Joint Applicants in their Application[93] and the opening testimony submitted by Verizon's expert witness[94] recognize the superior voice service quality provided over fiber technology. Furthermore, Frontier's Senior Vice President, Allison Ellis, acknowledges that, "Frontier has experienced challenges in meeting the California out of service restoral in 24 hours service quality requirements for its legacy copper services."[95] The performance comparison between copper and fiber described

[92] A.24-10-006, p. 17.

[93] A.24-10-006, p. 18.

[94] A.24-10-006. Paul Sullivan. Opening Testimony for Verizon Communications Inc. [Public Version – Confidential Information Redacted] January 24, 2025, p. 10.

[95] TESTIMONY OF ALLISON M. ELLIS. ON BEHALF OF FRONTIER COMMUNICATIONS PARENT, INC., FRONTIER CALIFORNIA INC. (U 1002 C), CITIZENS TELECOMMUNICATIONS COMPANY OF CALIFORNIA INC. (U 1024 C), FRONTIER COMMUNICATIONS OF THE SOUTHWEST INC. (U 1026 C), FRONTIER COMMUNICATIONS ONLINE AND LONG DISTANCE INC. (U 7167 C), AND FRONTIER COMMUNICATIONS OF AMERICA, INC. (U 5429 C) IN SUPPORT OF JOINT APPLICATION, filed January 24, 2025, p. 19.

above in this section demonstrates that fiber deployments significantly enhance voice service quality, thereby directly benefiting customers affected by the Proposed Transaction. The Commission should not approve the Proposed Transaction unless Verizon commits to the fiber deployment conditions described in the testimony submitted by Cal Advocates' witness, Lucas Duffy.[96]

IV. CUSTOMER TROUBLE REPORTS

The Customer Trouble Reports (CTR) metric is the only GO 133-D service quality standard with which Frontier consistently complies. GO 133-D describes a CTR as "service affecting, and out of service trouble reports, from customers and users of telephone service relating to dissatisfaction with telephone company services."[97] The CTR metric measures the percentage of total working phone lines experiencing out-of-service or service affecting trouble reports from customers.[98] The minimum standard reporting level for CTR maintains that no more than 6% of working lines (for reporting units containing 3,000 or more lines), 8% of working lines (for reporting units containing between 1,001 and 2,999 lines) or 10% of working lines (for reporting units containing 1,000 lines or less) should have trouble reports every month.[99] This section will evaluate Frontier's compliance with the GO 133-D CTR standard, and frames how the Commission should assess this metric in this proceeding.

Verizon has not provided fixed voice service as an ILEC in California since it sold its assets to Frontier in 2015. Given the absence of this data, it is necessary to review Verizon NY's performance data and its compliance with the NYPSC voice service quality standards, specifically the Customer Trouble Report Rate (CTRR)[100] metric. This

[96] A.24-10-006. Cal Advocates Exhibit D of Lucas Duffy: Executive Summary of Cal Advocates Testimony & Proposed Transaction Conditions. *See* Summary of Recommended Merger Conditions.

[97] G.O. 133-D § 3.3 a.

[98] G.O. 133-D, § 3.3 (a.)

[99] G.O. 133-D, § 3.3 (d.) (c.)

[100] Exhibit B-10. According to the NYPSC, CTRR is defined as the number of customer trouble reports per hundred access lines per month.

subsection illustrates the difference in performance outcomes pertaining to Verizon NY's regulated voice services provided over copper and fiber. CTRR and Mean Time to Repair (MTTR) are discussed in parallel because MTTR measures the time it takes the company to clear out-of-service and service-affecting trouble reports. The data used in the technology analysis is from a data request to Verizon[101] while the review of Verizon NY's history of compliance comes from quarterly service quality reports filed by the NYPSC.[102]

A. Frontier meets the California Customer Trouble Report Standard but this metric should be given less weight than the OOS Repair Interval Standard

Frontier's CTRs consistently fall between about 1% and 3%, which is within the established compliance limits.[103] However, the 2016 Network Exam,[104] testimony filed in Frontier's 2020 Restructuring proceeding,[105] and testimony filed in the Order Instituting Rulemaking R.22-03-016 to Consider Amendments to General Order 133[106] recommend that the Commission revise the CTR standard downward. For example, the Network Exam states, "Even the poorest performing wire centers for each of the two ILECs under examination here have reported results that are consistently well below these limits, and neither ILEC has ever failed to meet this standard."[107] This high compliance threshold indicates that even though quarterly GO 133-D reports show Frontier's compliance, and the company accrues no penalties, voice customers may still experience frequent and unreasonable trouble conditions.

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[101] Exhibit B-6 and Exhibit B-18 Data Request to Verizon DR02 Q2.6 Attachment VZ_PAO_0002094_CONFIDENTIAL.xlsx.

[102] Exhibit B-10.

[103] Note that the lowest compliance limit for the CTR metric is 6%.

[104] Exhibit B-2 Chapter 1, p. 3.

[105] Exhibit B-5, pp. 9 – 11.

[106] R.22-03-016 Cameron Reed. Opening Comments of the Public Advocates Office on the order Instituting Rulemaking Proceeding to Consider Amendments to General Order 133, p. 4, filed May, 9, 2022.

[107] Exhibit B-2 Chapter 1, p. 3 specifically referring to AT&T and Frontier.

B. In New York State, Verizon's Fiber Network has a Lower Rate of Customer Trouble Reports than Copper

Verizon NY's fiber network performs significantly better for CTRR and MTTR metrics compared to its copper network. CTRR measures the number of trouble reports received per hundred lines in a month. This metric reflects the frequency that customers experience service issues and the time it takes Verizon NY to resolve them. Verizon produced the data in this section in response to a data request from Cal Advocates regarding Verizon's regulated voice services in New York State. Consistent with the disparity in performance between Frontier's copper and fiber networks described in the previous section, Verizon NY's CTRR and MTTR data show that its fiber network consistently provides superior service quality than its copper network (Figure 4 and 5). The average CTRR between January 2022 and November 2024 is **<<BEGIN VERIZON CONFIDENTIAL>>** [redacted] **<<END VERIZON CONFIDENTIAL>>** for copper and **<<BEGIN VERIZON CONFIDENTIAL>>** [redacted] **<<END VERIZON CONFIDENTIAL>>** for fiber. Figure 4 shows that the rate of trouble reports was, on average, 100% higher among Verizon NY's copper customers than customers who receive voice service delivered over fiber.[108]

[108] Exhibit B-18 Data Request to Verizon DR02 Q2.6 Attachment VZ_PAO_0002094_CONFIDENTIAL.xlsx and Exhibit B-24 Analyst Work Paper Verizon Section IV and V CONFIDENTIAL.xlsx. Sheet "Figure 4 and 5".

Figure 4: Verizon's Customer Trouble Report Rate in New York, January 2022 – November 2024[109]

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Figure 5 shows that MTTR for fiber service is consistently much shorter compared to copper. Between January 2022 and November 2024, the total average monthly MTTR was **<<BEGIN VERIZON CONFIDENTIAL>>** [redacted] **<<END VERIZON CONFIDENTIAL>>** hours for regulated copper voice services and **<<BEGIN VERIZON CONFIDENTIAL>>** [redacted] **<<END VERIZON CONFIDENTIAL>>** hours for fiber.[110] The NYPSC's Q3 2024 Service Quality Report confirms wire centers that fail the CTRR metric are usually, "small, primarily use copper cable, and generally serve areas that are more rural or have seasonal populations."[111] Figures 4 and 5 also indicate

[109] Exhibit B-18 and Exhibit B-24 Sheet "Figure 4 and 5".

[110] Exhibit B-18 and Exhibit B-24 Sheet "Figure 4 and 5." The average monthly Median Time to Repair for the same dataset and time is **<<BEGIN VERIZON CONFIDENTIAL>>** [redacted] **<<END VERIZON CONFIDENTIAL>>** hours for fiber.

[111] Exhibit B-10 3Q2024 Report, p. 4.

that Verizon NY's fiber based voice services exhibit less variability in the CTRR and MTTR metrics compared to copper.

Figure 5: Verizon's Mean Time to Repair in New York, January 2022 – November 2024 (Hrs)[112]

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Verizon NY fails to consistently meet New York's established service quality standards; despite the small portion of core customers the company reports on. The NYPSC requires Verizon NY to report monthly service quality data for CTRR, OOS Repair Interval, Repair Call Answer Time, and the number of Service Inquiry Reports.[113] Between 2020 and 2024, the NYPSC filed 20 quarterly reports describing Verizon NY's voice service quality performance; of those reports, six (30%) show Verizon NY

[112] Exhibit B-18 and Exhibit B-24 Sheet "Figure 4 and 5".

[113] Exhibit B-10. Service Inquiry Reports identify specific reporting entities (e.g., central office switches, answer bureau, geographic areas) where improvements are required, detail the reasons for poor performance, describe the corrective action being taken, and identify an expected improvement date. Pursuant to 16 NYCRR §603.4, SIRs must be reported whenever an entity's performance on a given service standard metric is not at or better than the threshold of that metric for the current month and any two of the previous four months.

complied fully with New York's CTRR, Timeliness of Repair Performance, and Repair Call Answer Time standards.[114] Of these metrics, Verizon NY exhibits the poorest performance with the CTRR standard. Between 2020 and 2024, Verizon complied with the NYPSC CTRR standard only 58% of the time.[115] Figures 4 and 5 indicate that replacing copper infrastructure with fiber will lower the rate of customer trouble reports and shorten times to resolve the service affecting issues.

C. Fiber Deployment will Likely Reduce the Number and Rate of Customer Trouble Reports

If the Commission approves the Proposed Transaction, Verizon will be responsible for adhering to California's service quality standards. Verizon NY's CTRR performance data supports the assertion that fiber deployments will provide significant service quality benefits for Californians. A condition that requires Verizon to replace Frontier's legacy copper network with fiber will strengthen the company's ability to comply with California's voice service quality standards. The Commission should adopt the recommendations outlined in Cal Advocates' witness Lucas Duffy's testimony and require Verizon to deploy fiber in Frontier's service territory.[116] Doing so will ensure that Californians receive the net public benefit required by Public Utilities Code Section 854(c)(6) to approve the Proposed Transaction.

V. CUSTOMER COMPLAINTS

This section examines Frontier and Verizon's customer complaint data. Subsection A uses Frontier's customer complaint data provided in response to Cal Advocates' data request. This data identifies the technology[117] associated with each complaint, which allows for comparison between copper and fiber services.

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[114] Title 16, NYCRR Part 603 Service Standards Applicable to Telephone Corporations.

[115] Exhibit B-24 Sheet "Verizon NY Service Quality."

[116] A.24-10-006. Cal Adv. 02 – Testimony of Lucas Duffy: Executive Summary of Cal Advocates Testimony & Proposed Transaction Conditions. *See* Summary of Recommended Merger Conditions.

[117] The complaint data provided by Frontier identifies technology as "Copper, Fiber, Unknown or N A" (not applicable).

Verizon does not have residential or business wireline voice customers, but it does have a large base of fixed voice subscribers in New York State. Subsection B evaluates Verizon NY's history of customer complaints in accordance with New York State guidelines.

A. Frontier Receives More Complaints About Its Copper Services than its Fiber Services

Customers submit more complaints[118] about Frontier's copper services compared to fiber. Frontier received **<<BEGIN FRONTIER CONFIDENTIAL>>** [redacted] **<<END FRONTIER CONFIDENTIAL>>** complaints across all services between May 2021 and June 2024; of these, more than half are for services provided over copper technology.[119] Between May 2021 and June 2024, the most common "Complaint Type"[120] reported was, "Repair – Voice trouble – Static/Intermittent/No Dial tone," and, of those, **<<BEGIN FRONTIER CONFIDENTIAL>>** [redacted] **<<END FRONTIER CONFIDENTIAL>>** are from copper connections.[121]

Fixed voice services provided over copper technology receives significantly more customer complaints compared to fiber. The data provided by Frontier associates each complaint with a category of service (e.g., Data, Voice, Video). Table 4 breaks down Frontier's complaint data based on technology and the services that could include fixed voice customers, which are "All/Multiple Services,"[122] "Data/Voice," and "Voice."

[118] When a customer files a complaint with Frontier, the customer selects the technology and service field.

[119] Exhibit B-11 Q2.28, Exhibit B-25 Frontier Response to Data Request 02 Attachment FTR DR 2.28 (Customer Complaints) [CONFIDENTIAL] (FTR005873).xlsx, and Exhibit B-27 Analyst Work Paper Frontier Section V CONFIDENTIAL.xlsx. Sheet "Calculation 1".

[120] There are about 200 "Complaint Types" that describe a customer's issue in Exhibit B-25.

[121] Exhibit B-25 and Exhibit B-27 Sheet "Calculation 2".

[122] Aggregate data for three categories of service: "All/Multiple Services," "All/Multiple Service type," and "All/Services Impacted".

Table 4: Number of Complaints Received About Frontier's Voice, Data/Voice, and All/Multiple Services by Technology, May 2021 – June 2024[123]

<<BEGIN FRONTIER CONFIDENTIAL>>



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Communication services provided over copper networks received significantly more customer complaints in every technology category shown in Table 4. Out of the **<<BEGIN FRONTIER CONFIDENTIAL>>** [redacted] **<<END FRONTIER CONFIDENTIAL>>** complaints received between May 2021 and June 2024, **<<BEGIN FRONTIER CONFIDENTIAL>>** [redacted] **<<END FRONTIER CONFIDENTIAL>>** reference services provided over copper wireline. In addition, standalone copper "Voice" service received **<<BEGIN FRONTIER CONFIDENTIAL>>** [redacted] **<<END FRONTIER CONFIDENTIAL>>** of the total Voice complaints, which is significantly less than fiber.

B. Verizon NY's Customer Complaint Rate Frequently Exceeds New York State Guidelines

The number of complaints from Verizon NY's wireline voice customers is high relative to the number of access lines the company operates in New York State. The NYPSC establishes a guideline[124] for the rate of complaints they receive regarding telephone companies in New York, and they file the results quarterly. The target

[123] Exhibit B-25 and Exhibit B-27 Sheet "Table 4." The "NA" technology category was omitted because there were only 11 complaints present in the "All/Multiple Services" category.

[124] The NYPSC Customer Complaint guideline is not a formal standard like the CTRR metric discussed in Section II of this testimony.

annualized rate is 0.75 or less complaints per thousand access lines per year.[125] NYPSC quarterly service quality reports indicate that between 2020 and 2024, Verizon NY failed to meet the target complaint rate in 50 out of 60 (83%) of months.[126] Verizon NY habitually misses the complaint rate target established by the NYPSC. The Joint Applicants have not presented the Commission with any specific evidence demonstrating that Verizon's fixed voice service or their customer service processes in California would be an improvement from Frontier's. The Commission should consider that Verizon's operation of its fixed voice service could be similar to Verizon NY's, which often fails to meet the NYPSC complaint rate guidelines.

C. A Condition for Verizon to Deploy Fiber will Likely Reduce the Number of Customer Complaints

Customer complaint data reflects the overall customer experience, which includes service quality issues. Frontier receives significantly more complaints for the fixed voice service provided over copper wireline compared to fiber. The Commission should adopt Cal Advocates' witness Lucas Duffy's recommendation regarding conditions for Verizon to build out fiber in California, because transitioning Frontier's copper voice customers to fiber will provide greater reliability and likely reduce service quality customer complaints.[127]

Despite Verizon's award-winning customer service proclaimed in the Joint Application,[128] the NYPSC's quarterly service quality reports show that Verizon repeatedly fails to meet the NYPSC's established guidelines for customer complaints. In addition, the testimony submitted by Cal Advocates in the 2015 Acquisition proceeding noted that over **<<BEGIN VERIZON CONFIDENTIAL>>** [redacted] **<<END VERIZON CONFIDENTIAL>>** of the total customer complaints Verizon received between 2010

[125] Exhibit B-10 Verizon Service Quality Q4 2024.

[126] Exhibit B-10 and Exhibit B-24 Sheet "Verizon NY Service Quality".

[127] A.24-10-006. Cal Adv. 02 - Testimony of Lucas Duffy: Executive Summary of Cal Advocates Testimony & Proposed Transaction Conditions. *See* Summary of Recommended Merger Conditions.

[128] A.24-10-006, p. 21.

and 2014 were about their voice service.[129] The Joint Applications have not provided any substantive evidence that Verizon's customer service is superior to Frontier's.

The Commission should note that the 2020 Communications Division Report About Frontier observed a significant spike in the number of complaints reported to the Consumer Affairs Branch (CAB) in 2016.[130] The timing of this spike follows the 2015 Acquisition of Verizon's California assets by Frontier.[131] As set forth in the testimony of Cal Advocates witness Alejandra Martinez, Verizon and Frontier mismanaged the transition of operations between the two companies, which resulted in significant service quality failures.[132] If the Commission approves the Proposed Transaction, it should closely monitor and evaluate Verizon's customer complaints as an additional component of service quality.

VI. CONCLUSION

The above testimony provides evidence that: 1) Frontier's fixed voice network needs to improve on critical service quality metrics, and 2) replacing copper infrastructure with fiber will ensure improvement in these performance outcomes. Frontier's record of non-compliance with the GO 133-D OOS Repair Interval standard highlights the need for the Commission to require and enforce conditions on Verizon to address this issue. A condition for Verizon to build out fiber infrastructure in California will improve service quality and satisfy the requirements of Public Utilities Code 854(c). Furthermore, customers with access to FTTP voice service will receive the benefits of a more reliable, resilient, and long-lasting communications network. Upgrading Frontier's network to fiber will also enhance public safety because copper wirelines experience more outages compared to fiber and take more time to restore service when an outage occurs, making copper systems less safe. A condition for Verizon to upgrade Frontier's

[129] Exhibit B-1, p. 3-3; Line 12.

[130] Exhibit B-4, p. 3.

[131] Exhibit B-1, p. 3-3.

[132] A.24-10-006. Cal Adv. 03 - Opening Testimony of Alejandra Martinez on Impacts to Broadband Service Quality, p. 46.

aging copper infrastructure to fiber is the most effective way to ensure that Verizon consistently meets California's service quality standards. The Commission should adopt the recommendations in Cal Advocates' witness Lucas Duffy's testimony regarding fiber deployments because doing so will protect critical communications during emergencies, which will help safeguard the public.[133]

The reality is that legacy copper infrastructure will continue to degrade, which will feed the cycle of outages, customer trouble reports, and complaints. The Commission must impose conditions to ensure that the substantial benefits espoused by the Joint Applicants include improvements to essential telephone services. The analysis in this testimony shows that expanding access to durable, reliable, future-proof fiber networks will provide the greatest benefit to voice service quality in California.

[133] A.24-10-006. Cal Adv. 02 – Testimony of Lucas Duffy: Executive Summary of Cal Advocates Testimony & Proposed Transaction Conditions. *See* Summary of Recommended Merger Conditions.

APPENDIX A

Statement of Qualifications and Experience of Darren Blackburn

STATEMENT OF QUALIFICATIONS AND EXPERIENCE
OF
DARREN BLACKBURN

My name is Darren Blackburn. I am currently employed by the Public Advocates Office at the California Public Utilities Commission (Cal Advocates) as a Public Utilities Regulatory Analyst I in Communications and Broadband Policy Branch. I graduated from the University of California, Los Angeles with a bachelor's degree in Geography. In addition, I received a Master of Arts degree in Geography: Resource Management and Environmental Planning from San Francisco State University.

After joining Cal Advocates as a Public Utilities Regulatory Analyst I on March 1, 2024, I have worked on multiple proceedings. My work began with evaluating the Federal Funding Account applications (FFA) to identify potential impacts on customers in the proposed project area. I have worked with other team members to file comments for proceedings such as the Order Instituting Rulemaking (OIR) to Consider Revisions and Updates to the Deaf and Disabled Telecommunications Program (R.23-11-001), the OIR to Consider Regulating Telecommunications Services Used by Incarcerated People (R.20-10-002), and the OIR to Consider Changes to the Commission's Carrier of Last Resort Rules (R.24-06-012). On March 17, 2025, the Commission's Executive Director appointed me as the primary representative to the Telecommunications Access for the Deaf & Disabled Administrative Committee (TADDAC).