ATTACHMENT B

California Wireline Telephone Service Quality, Pursuant to General Order 133 - Calendar Years 2010 through 2013

California Wireline Telephone Service Quality Pursuant to General Order 133-C Calendar Years 2010 through 2013

California Public Utilities Commission
Communications Division Staff Report
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Table of Contents

List of Appendices

I. Executive Summary

This report is prepared by the Communications Division (CD) staff in accordance with General Order (G.O.) 133-C Section 7.[1] The report discusses the service quality (SQ) results of California wireline telecommunication carriers[2] for calendar years 2010 through 2013 based on data submitted pursuant to the measures and standards established in G.O. 133-C. CD staff issued a similar report in March 2011 covering G.O. 133-C results in 2010.

General Order 133-C, adopted July 9, 2009, titled "Rules Governing Telecommunications Services", contains the CPUC's service quality rules for telephone carriers. The General Order has five service quality measures and underlying standards[3] applicable to facilities-based wireline telephone carriers:

- Telephone service installation interval (five business days);
- Installation commitments met 95% of the time;
- Customer trouble reports per number of 100 working telephone lines;[4]
- Out of service (OOS) repair interval (90% within 24 hours excluding Sundays, federal holidays, catastrophic events and widespread outages); [5] and
- Answer time to reach a live operator (80% of calls in less than 60 seconds).

Resellers, wireless carriers, Internet Protocol (IP)-enabled carriers (including Voice over Internet Protocol (VoIP) and cable), and any Uniform Regulatory Framework (URF) Competitive Local Exchange Carriers (CLECs) with fewer than 5,000 customers, unless one of these carriers also is

[1] Staff Investigations and Additional Reporting Requirements - Staff may investigate any carrier that does not meet a minimum service quality reporting standard level, and any major service interruption, and may also, recommend the Commission institute an investigation into a carrier's performance and alleged failure to meet the reporting service level for six or more consecutive months.
[2] D.09-07-019, fn. 2: "By telecommunications carriers, this decision is referring to telephone corporations that are public utilities."
[3] D.09-07-019, fn. 1: "Measures are the aspects or features of service subject to evaluation and reporting. Standards are the minimum acceptable values that measures must meet to be in compliance with the Commission's requirements."
[4] G.O. 133-C §1.3 (m) defines lines as "[A]n access line (hardwired and/or channel) which provides dial tone and which runs from the local central office (Class 4/5, Class 5, or a remote) to the subscriber's premises."
[5] D.01-12-021 stated that catastrophic events and widespread outages are circumstances beyond the carrier's control. D.09-07-017 defined catastrophic event as any event in the reporting carrier's service area for which there is a declaration of a state of emergency by federal or state authority and widespread service outages as an outage affecting at least 3% of the carrier's customers in the state.

a carrier of last resort (COLR),[6] are exempt from reporting any of the five G.O. 133-C service quality measures. The reporting of these measures is limited to services provided to residential customers and small businesses with five or fewer lines. URF Carriers[7] are exempt from reporting the first two measures: installation intervals and installation commitments. There are no penalties if a carrier does not meet the minimum standards, and there are no incentives for good performance.

The following is a summary of the carrier's performance in meeting the G.O. 133-C service quality measures.

- **Installation Interval** – All General Rate Case (GRC) Incumbent Local Exchange Carriers (ILECs)[8] met the minimum standard. URF Carriers are not required to file a report under this measure.

- **Installation Commitments** – All GRC ILECs met the minimum standard. URF Carriers are not required to file a report under this measure.

- **Customer Trouble Report** – All GRC ILECs and URF carriers met the minimum standard.

- **Out of Service (OOS) Repair Interval** – Many of the URF Carriers did not meet the minimum standard in multiple years. Notably, the two largest wireline carriers: AT&T California (AT&T) and Verizon California (Verizon) never met the minimum standard for the OOS repair interval measure during the 2010 to 2013 period. Generally, all fourteen GRC ILECs met the minimum standard. Only one GRC ILEC, Frontier Communications West Coast, encountered an issue of not meeting the standard in more than one year within 2010 to 2013.

- **Operator Answer Time (Answer Time)** – All GRC ILECs met the minimum standard. Unfortunately, the URF carriers have shown mixed results in meeting the standard. Among all the URF carriers, there are eleven carriers that failed to meet the standard in at

[6] D.09-07-019 defines COLRs as carriers "required to serve upon request all customers within their designated service area. Pursuant to D.96-10-066, a carrier seeking to be a COLR needs to file a notice of intent with the Commission in order to have access to high cost fund subsidies. Once a carrier is designated as a COLR, it must obtain the Commission's approval to opt out of its obligation to serve."
[7] URF Carriers have full pricing flexibility over substantially all of their rates and charges. URF carriers include ILECs and Competitive Local Exchange Carriers (CLECs) regulated through the Commission's uniform regulatory framework established in D.06-08-030. URF ILECs are granted pricing flexibility through D.06-08-030, which may be modified from time to time, as opposed to being regulated under rate-of-return regulation which is applied to GRC ILECs. The URF ILECs are considered carriers of last resort (COLR). URF CLECs provide local telephone services in service territories formerly served by the ILECs, in competition with ILECs, and must obtain a Certificate of Public Convenience and Necessity (CPCN) from the Commission.
[8] GRC ILECs are regulated through cost-of-service reviews as required by G.O. 96-B. These carriers are designated COLR pursuant to D.96-10-066. COLRs are required to serve upon request all customers within their designated service area.

least one of the four reporting years. Notably, Verizon, an URF ILEC, and Astound Broadband, an URF CLEC, failed to meet the minimum standard for all reporting years. In 2013, only half of the reporting URF carriers met the standard.

Included is a staff review of AT&T and Verizon's OOS repair performances due to their large size in the California market and the significant ramifications of their service quality on public safety and the state economy. [9] These two carriers collectively operate approximately 88% of all working telephone lines reported pursuant to G.O. 133-C. These carriers have reported at least a 12% annual decline in the number of working lines from 2010 to 2013.

Staff examined the effect of the G.O. 133-C allowable exemptions for calculating OOS repair intervals and found that the exemptions provide only an approximate 10% improvement in their reported results. Staff recommends that the Commission consider using unadjusted raw data results with one exemption – customer-requested appointments, as opposed to the current adjusted results for calculating and reporting outage durations.

In addition, staff analyzed the percentage of time it took AT&T and Verizon to repair outages for the combined periods from 2010 to 2013, using 24 hour increments: 24, 48, 72, and 96 hours in order to gain a better overall perspective on their OOS repair performance. Staff analysis showed that for the combined years 2010 and 2011, AT&T and Verizon each needed on average, up to 110 hours to repair 90% of actual outages. However, in the subsequent combined years 2012 and 2013, carriers improved their respective OOS repair times, with each repairing at least 90% of their outages within 72 hours. CD believes that having three days without phone service and the ability to dial 9-1-1 compromises public safety.

Pursuant to G.O. 133-C reporting requirements, AT&T and Verizon have provided corrective action reports for each quarter they missed the adopted measures and related minimum standard. These corrective action reports reiterate the same proposed actions that would be undertaken to improve service restoral times. However, the actions cited have not resulted in improvements that are significant enough to meet the minimum standard for the OOS repair interval measure. As such, reliance on carriers' corrective actions has not been an effective means to improve service quality performance.

Rather, the ongoing failure of carriers to meet the minimum standards of the service quality measures warrants consideration of revising the current measures and adopting penalty/incentive methodologies to motivate the carriers to improve performance. The specific details of the changes to the service quality rules should be developed with industry and other stakeholders input.

Staff assessed alternatives to G.O. 133-C measures and standards, and options for a penalty/ incentive methodologies by:

- **Comparing AT&T and Verizon's G.O. 133-C results to their Wholesale Performance Measurements (PM)** established to identify the level of service quality the carriers provide to their wholesale CLEC customers. Staff does not recommend this

[9] PU Code §§ 451 & 709 (h).

alternative to the G.O. 133-C OOS measures because the repair times are significantly longer than reported for the similar G.O. 133-C OOS repair time measures. Additionally, the PMs were developed through negotiations between carriers on a commercial basis and were designed for carrier-to-carrier relationships with both business and residential customers, and not for carrier to individual end-user relationships.

- **Reviewing service quality measures and penalty/incentive methodologies in other states**. Staff determined that California's service quality measures and standards appear to be reasonable because they are consistent with other states' standards. There are ten states that assess fines and penalties for carriers that are in direct violation of their state's service quality measures and standards. Oregon has an incentive for carriers that meet service quality rules. Staff recommends that the Commission consider using information from other states to help develop California service quality penalty/incentive methodologies.

- **Looking back at the prior penalty methodology adopted in Decision (D.) 01-12-021.** The decision adopted a penalty methodology for AT&T's predecessor, Pacific Bell Telephone Company, for failing to maintain or improve service as a condition of the merger of SBC and Pacific Bell.[10] Staff has invoked the G.O. 133-C remedial actions, however many of the URF carriers continue to miss the G.O. 133-C OOS repair interval measure. Staff recommends that the Commission consider adopting a penalty methodology that takes into consideration the size of the carrier in a manner, such as the number of access lines and intrastate revenues.

If catastrophic events and widespread service outages continue to be exempted from calculating OOS duration results, CD staff recommends setting a standard for determining the duration of catastrophic events and widespread service outages to provide clarity as to when a state of emergency and/or catastrophic events begins and ends. Additionally, staff recommends that carriers be required to separately identify each outage that occurred during a catastrophic event with sufficient detail to support the calculation of G.O. 133-C outage duration results.

The Commission has not adopted requirements for carriers to report damage to communication infrastructure when public safety is at risk (e.g. 9-1-1 outages) due to catastrophic events. CD staff recommends that the Commission adopt requirements for reporting these types of outages, and also recommends adopting periodic status report requirements to keep the Commission up-to-date on repairs and service restoral.

The Commission should take into consideration the fact that consumers are migrating from traditional wireline service to wireless and interconnected VoIP, and should consider adopting service quality rules to interconnected VoIP and wireless carriers so that all voice communications customers in California have safe and reliable service regardless of the technology used. Additionally, the Commission should consider whether and how interconnected VoIP service carriers would report with the Commission when the carrier files its NORS reports with the FCC.

[10] Merger Decision 97-03-067.

The specifics of the changes to the service quality rules recommended in this staff report should be developed with industry and other stakeholders input.

II. Background

In July 2009, the California Public Utilities Commission (CPUC or Commission) issued D.09-07-019 adopting G.O. 133-C which established a set of five service quality measures and related minimum standards for California wireline telecommunications carriers. The service quality measures allow the Commission to exercise its statutory duty, pursuant to Public Utilities (P.U.) Code Sections 709, 2896, and 2897, to help protect the public's interest and ensure consumers receive adequate telephone service quality in California. In July 2014, the Commission adopted a broad safety policy intended to ensure that regulated utility services are safe and resilient by promoting reliable access to utility services that support health and safety.[11]

Telecommunications services continue to be an essential element of the infrastructure that provides an underpinning of the U.S. economy and society. Having access to reliable wireline telephone service and access to 9-1-1[12] is critical for public safety. California residents continue to rely on wireline phone service for many reasons. They may be elderly, live in areas without alternatives, and have systems (such as medical alert for the elderly, fax machines and point of sale machines or other services) that may not work on alternative communication services. Some consumers choose to keep traditional wireline service because of its reliability, and because copper wire telephone service usually has an independent power supply through the central office during power failures, it remains functional.

As noted previously, the five G.O. 133-C service quality measures are: 1) telephone service installation interval, 2) installation commitments met, 3) customer trouble reports, 4) out of service (OOS) repair interval and 5) answer time to reach a live operator. Incumbent local exchange carriers which must file general rate cases are required to report on all measures, while carriers subject to the Uniform Regulatory Framework are only required to report on three measures: Customer Trouble Report (CTR), OOS repair interval and Answer Time. Resellers, wireless carriers, IP-enabled carriers (including VoIP and cable), and any URF CLEC with fewer than 5,000 customers, unless one of these carriers also is a COLR, are exempt from reporting any of the five G.O. 133-C service quality measures. The reporting of these measures is limited to services provided to residential customers and small businesses with five or fewer lines.

The following summarizes the five service quality measures, minimum standards and the type(s) of carriers it is applicable to:

1. **Installation Interval:** This measurement assesses the amount of time to install basic telephone service from the day and hour the customer-requests service until it is established. The minimum standard is five business days for installing service. This measure is only applicable to GRC ILECs.

[11] July 10, 2014: Safety Policy Statement of the California Public Utilities Commission.
[12] 9-1-1 includes Enhanced (E) 9-1-1 and Next Generation (NG) 9-1-1.

2. **Installation Commitments:** This measurement assesses service quality relative to establishing telephone services. The minimum standard is that 95% of the installation commitments need to be met. This measure is only applicable to GRC ILECs and commitments are not considered missed when resulting from customer actions to delay the installation.

3. **Customer Trouble Report (CTR):** This measurement assesses customer's and user's dissatisfaction with telephone carrier services. Reports received will be counted and related to the total working lines within the reporting unit in terms of reports per 100 lines. This measure is applicable to all URF Carriers and GRC ILECs. There are three minimum CTR standards:

    a. No more than 6 trouble reports per 100 working lines for reporting units with 3,000 or more lines;

    b. No more than 8 trouble reports per 100 working lines for reporting units with 1,001-2,999 lines; and

    c. No more than 10 trouble reports per 100 working lines for reporting units with less than 1,000 lines.

4. **Out of Service (OOS) Repair Intervals:** This measurement assesses the average interval, in hours and minutes, from the time of the reporting carrier's receipt of the OOS trouble reports to the time service is restored for residential and small business customers. The minimum standard is 90% of all OOS reports are to be repaired within 24 hours. This measure is applicable to all URF Carriers and GRC ILECs. The measurement excludes Sundays, federal holidays, catastrophic events and widespread outages.

5. **Answer Time:** The measurement gauges the time for an operator to answer billing, non-billing and trouble report calls. A customer must be presented with the option of speaking with a live agent on an interactive voice response (IVR) or automatic response unit (ARU) system, preferably in the first set of options. The minimum standard is 80% of the trouble report calls need to be answered within 60 seconds when speaking to a live agent or 80% answered within 60 seconds when speaking to a live agent after completing an IVR or ARU system. This measure is applicable to all URF Carriers and GRC ILECs. The measurement excludes any group of specialized business account representatives established to address the needs of a single large business customer or a small group of such customers.

In addition to reporting the above five service quality measures, carriers are required to provide the underlying raw data used in calculating their reported results for every measure except answer times. Also, carriers that do not meet the standard for any measures for two or more consecutive quarters are required to provide a corrective action report with proposals to improve performance. Among the information that the carriers have to provide are: a description of their performance at the reported level, a statement of action being taken to improve service, and the

estimated date of completion of those improvements.[13] The results are compiled monthly and reported quarterly using a specific "report card" format developed by CD and the reported results are posted on the Commission's website. The CPUC has no prescribed penalties in place if a carrier fails to meet the minimum standards, and there are no incentives for good performance.

In March 2011, CD staff released a report that discussed the service quality results for 2010 submitted pursuant to G.O. 133-C.[14] The report also addressed the response of AT&T and Verizon to the severe winter storms that caused widespread service outage in Southern California during the months of December 2010 and January 2011. The report uncovered service quality problems, particularly regarding the OOS repair intervals measure. In this report, CD had recommended that the Commission should open an Order Instituting Rulemaking (OIR).

In December 2011, the Commission opened Rulemaking (R.) 11-12-001 to review the telecommunications carrier's performance in meeting the G.O. 133-C service quality measures and standards. In January 2013, a workshop was held to help identify the scope for the evaluation of the network infrastructure and review of the associated policies and practices. The proceeding is still ongoing.

III. Analysis of G.O. 133-C Performance Measure Reported Results

A. Compliance Information for All Reporting Carriers from 2010 through 2013

From 2010 to 2013, CD received at least 27 filings from URF Carriers and GRC ILECs. (Refer to Appendix A of this Staff Report for the list of carriers that filed G.O. 133-C Reports from 2010 to 2013). Table 1 below provides the number of carriers by type that filed G.O. 133-C reports from 2010 to 2013.

Table 1. Count of G.O. 133-C Reporting Carriers

Carrier Type	2010	2011	2012	2013
URF ILEC	5	5	5	5
URF CLEC	8	10	10	11
GRC ILEC	14	14	14	14
Total	**27**	**29**	**29**	**30**

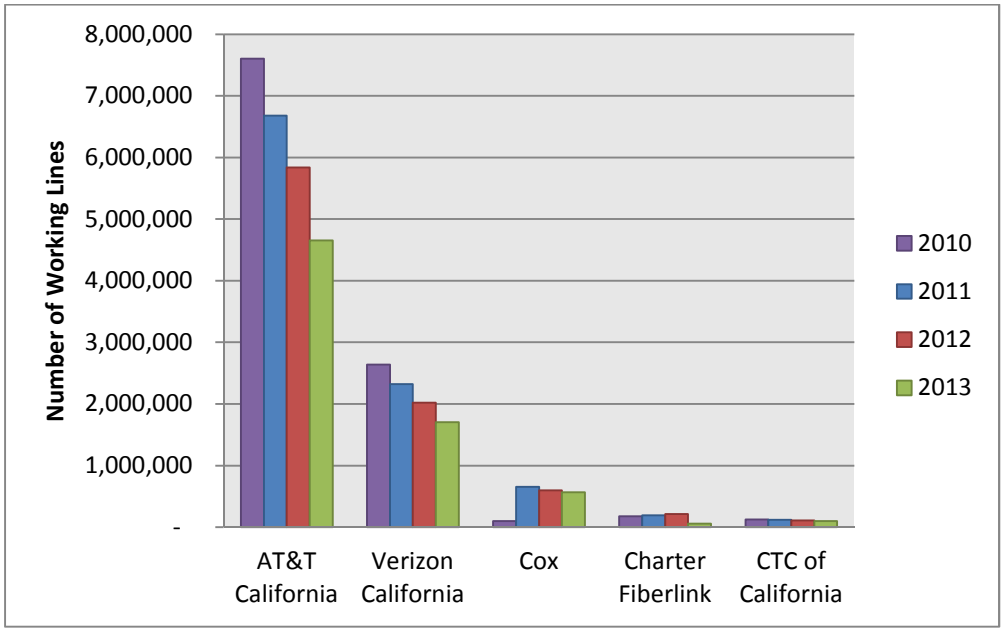
Based on the total number of working lines reported in the Customer Trouble Report measure, AT&T, Verizon, Citizens Telecommunication Company of California (CTC of CA), Cox California Telecom (Cox) and Charter Fiberlink (Charter) are the five carriers with the greatest

[13] G.O. 133-C § 6.2.
[14] Communications Division's Report on Wireline Telephone Carrier's 2010 Service Quality Performance (March 2011) available at: ftp://ftp.cpuc.ca.gov/Telco/ServiceQualityReports/3-29-11%20Final%20CD%20Service%20Quality%20Report.doc.

number of reported working lines. These five carriers collectively operate approximately 97% of all the working lines in California for wireline carriers reported pursuant to G.O. 133-C.

As an aside, staff notes that from 2010 to 2013, there was a noticeable decline in the number of working telephone lines for some of the reporting carriers. Chart 1 below provides a comparative working telephone line count for the five carriers with the most working telephone lines. The most obvious annual decline has been at least 12% with AT&T and Verizon. AT&T's working telephone lines from 2010 to 2013 decreased by a total of 20%, while Verizon's decreased by a total of 16%.

Chart 1. Comparative Working Telephone Line Count 2010 to 2013 (Annual Average)



B. G.O. 133-C Performance Results of Wireline Carriers from 2010 through 2013

Staff annualized the G.O. 133-C data reported by the carriers to provide a year-by-year comparison, as opposed to a month-to-month comparison. The year-to-year comparison removes monthly variation and gives a clearer snap shot of the individual company's performance over a longer period. Appendix B of this staff report provides a summary of the entire reporting carrier's annualized reported results for all service quality measures from 2010 to 2013.

a. Results of Installation Intervals

The GRC ILECs consistently met the minimum standards for the Installation Intervals measure. For this measure, all the GRC ILECs reported below five business days to install a basic telephone service from the date the service order was placed until the service has been established. Data in Appendix B shows that the installation interval average for the fourteen

GRC ILECs ranged from 0.07 to 4.70 days to install basic telephone service. The URF Carriers are exempt from reporting this measure.

b. Results of Installation Commitments

The GRC ILECs consistently met the minimum standards for Installation Commitments measure. For this measure, all the GRC ILECs reported above 95% commitments met. Data in Appendix B shows that the fourteen GRC ILECs have results that ranged from 97% to 100%. The URF Carriers are exempt from reporting this measure.

c. Results of Customer Trouble Reports

Both URF Carriers and GRC ILECs consistently met the minimum standards established in the Customer Trouble Report measure. Except for one instance over the four year period, all the carriers reported six or below trouble reports per 100 working lines (i.e., 6%) that meets the lowest benchmark for the Customer Trouble Report measure. A summary of the lowest and highest Customer Trouble Report results per year from Appendix B is presented below in Table 2.

Table 2. Summary of the Lowest and Highest Percentage of Customer Trouble Reports

Year	Low	High
2010	0.12%	3.37%
2011	0.17%	6.05%
2012	0.38%	3.87%
2013	0.31%	3.91%

In 2011, Telscape Communications (Telscape), an URF CLEC, slightly exceeded the minimum standard of 6 CTR per 100 working lines by 0.05%.

d. Results of Out of Service (OOS) Repair Intervals

Compared to the URF carriers, the GRC ILECs performed significantly better in meeting the service quality minimum standard of 90% of OOS report tickets repaired within 24 hours. As shown in Table 3 below, the fourteen GRC ILECs only missed the standard on four occasions during the 2010 to 2013 period. Moreover, these misses were generally within 5% of the benchmark. During this period GRC ILECs met the standard almost 93% of the time.

Table 3. GRC ILECs Annualized OOS Repair Interval Measure Reported Results

GRC ILECs	Utility Number(s)	2010	2011	2012	2013
Calaveras Telephone	U-1004-C	100%	100%	100%	100%
Cal-Ore Telephone	U-1006-C	98%	98%	96%	93%
Ducor Telephone	U-1007-C	99%	100%	100%	100%
Foresthill Telephone	U-1009-C	94%	95%	94%	96%
Frontier Communications West Coast	U-1020-C	93%	90%	87%	84%
Happy Valley Telephone	U-1010-C	97%	98%	97%	100%
Hornitos Telephone	U-1011-C	95%	100%	98%	99%
Kerman Telephone	U-1012-C	95%	88%	93%	96%
Pinnacles Telephone	U-1013-C	86%	100%	100%	100%
Ponderosa Telephone	U-1014-C	95%	96%	100%	98%
Sierra Telephone	U-1016-C	99%	100%	100%	100%
Siskiyou Telephone	U-1017-C	99%	99%	98%	96%
Volcano Telephone	U-1019-C	95%	100%	100%	95%
Winterhaven Telephone	U-1021-C	95%	99%	97%	98%

In stark contrast to GRC ILECs, Frontier Communications of the South West[15] is the only URF ILEC that consistently met the minimum standard for the OOS repair interval measure for all reporting years. In Table 4 below, SureWest Telephone (U-1015-C) & SureWest TeleVideo (U-6324-C) (SureWest companies)[16] improved and consistently met the standard from 2011 to 2013. CTC only began meeting the standard in 2013. Notably, AT&T and Verizon failed to meet the minimum standard during each year of the four reporting period.

Table 4. URF ILECs Annualized OOS Repair Interval Measure Reported Results

URF ILECs	Utility Number(s)	2010	2011	2012	2013
AT&T California	U-1001-C	50%	67%	71%	67%
Verizon California	U-1002-C	76%	73%	72%	70%
SureWest Companies	U-1015-C U-6324-C	85%	95%	93%	94%
CTC of California, Inc.	U-1024-C	78%	82%	83%	91%
Frontier Communications of the South West	U-1026-C	98%	91%	92%	93%

[15]Frontier Communications of the South West (U-1026-C) and Frontier Communications West Coast (U-1020-C) did not have any reported data for the first quarter and second quarter of 2010. These were exchanges acquired from Verizon effective July 1, 2010.
[16]SureWest has been filing its service quality reports by combining its ILEC and CLEC operations. Beginning fourth Quarter of 2013, its CLEC operation, SureWest TeleVideo, went below 5,000 working lines and URF carriers with less than 5,000 work lines are exempt from service quality reporting.

The URF CLECs had mixed results from 2010 to 2013 in meeting the minimum standard for the OOS repair interval measure. As shown in Table 5 below, Cox and Telscape have consistently met the minimum standard in all four reporting years. Moreover, TelePacific[17] is the only URF CLEC that failed to meet the standard for all four reporting years. Of the eleven URF CLECs listed in Table 5, seven have missed the standard at least twice from 2010 to 2013 and nine have missed the standard in at least one year during four reporting years.

Table 5. URF CLECs Annualized OOS Repair Interval Measure Reported Results

URF CLECs	Utility Number(s)	2010	2011	2012	2013
ACN Communication Services, Inc.	U-6342-C	--	--	--	10%
Advanced TelCom	U-6083-C	95%	91%	85%	85%
Astound Broadband	U-6184-C	87%	87%	92%	88%
AT&T Communications	U-5002-C	76%	77%	89%	99%
Charter Fiberlink CA-CCO, LLC	U-6878-C	80%	88%	85%	93%
Cox California Telecom	U-5684-C	94%	93%	93%	93%
Electric Lightwave	U-5377-C	92%	84%	92%	81%
Paetec Communications	U-6097-C	--	86%	96%	95%
Sonic Telecom	U-7002-C	--	38%	32%	64%
Telscape Communications	U-6589-C	90%	92%	91%	92%
TelePacific Communications Companies	U-5721-C U-5859-C U-5248-C	55%	54%	61%	79%

It should be noted that TelePacific contends that their OOS repair interval results were affected by the ILEC's response. According to TelePacific's amended report matrix filed in May 2010, ILEC controlled OOS report tickets have 24 to 48 hours to respond.[18] All OOS report tickets filed by the carrier provided the data for all of its OOS reports as well as data separating the ILEC controlled OOS reports. All reports revealed that if the OOS report was stripped off the ILEC controlled tickets, then TelePacific would always meet the OOS repair interval measure minimum standard.

e. Results of Answer Times

Table 6 below shows that almost all of the GRC ILECs which reported the Answer Time measure met the minimum standard of having 80% of calls reach a live agent in less than or equal to 60 seconds. The one noted exception occurred in 2012 when Frontier Communications West Coast[19] did not meet the standard in the first three quarters of the year but reached 90% in

[17] U.S. TelePacific Corp. (U-5721-C), Mpower Communications Corp. (U-5859-C) and Arrival Communications, Inc. d/b/a TelePacific Communications (U-5248-C).
[18] Telepacific obtains services from an underlying facilities-based carrier through unbundled network elements (UNE). This arrangement requires CLECs to report outages under G.O. 1 33-C even though it is the underlying facilities-based carrier that is responsible for the repair of the outage.
[19] Frontier Communications West Coast (U-1020-C) merged with Citizens Telecommunication Company (CTC) of California (U-1024-C) as of July 1, 2013.

the last quarter. Combining Frontier Communications West Coast's 2012 quarterly results gave it a 76% annualized average for the given year.

Table 6 shows that there were seven GRC ILECs that did not reported the answer time measure throughout the four reporting years. The decision that established G.O. 133-C limited answer time reporting to units with traffic offices that has 10,000 or more lines[20] and these seven companies do not meet the reporting unit threshold.

Table 6. GRC ILECs Answer Time Measure Annualized Results

GRC ILECS	Utility Number(s)	2010	2011	2012	2013
Calaveras Telephone	U-1004-C	--	--	--	--
Cal-Ore Telephone	U-1006-C	--	--	--	--
Ducor Telephone	U-1007-C	--	--	--	--
Foresthill Telephone	U-1009-C	97%	--	--	--
Frontier Communications West Coast	U-1024-C	89%	86%	76%	84%
Happy Valley Telephone	U-1010-C	96%	94%	92%	89%
Hornitos Telephone	U-1011-C	94%	--	89%	88%
Kerman Telephone	U-1012-C	97%	--	--	--
Pinnacles Telephone	U-1013-C	--	--	--	--
Ponderosa Telephone	U-1014-C	--	--	--	--
Sierra Telephone	U-1016-C	99%	99%	100%	95%
Siskiyou Telephone	U-1017-C	--	--	--	--
Volcano Telephone	U-1019-C	96%	96%	96%	91%
Winterhaven Telephone	U-1021-C	94%	91%	89%	88%

With regard to the URF ILECs, their Answer Time measure results were quite concerning. Table 7 below provides the summary of the results. The SureWest companies were the only carriers that successfully met the minimum standard for the Answer Time measure of having 80% of calls reach a live agent in less than or equal to 60 seconds from 2010 to 2013. However, Verizon was the total opposite and did not meet the minimum standard in all four reporting years. AT&T and CTC of California met the minimum standard in two years out of four reporting years. Frontier Communications of the South West only missed the standard in 2012.

Table 7. URF ILECs Answer Time Measure Annualized Results

URF ILECs	Utility Number(s)	2010	2011	2012	2013
AT&T California	U-1001-C	78%	79%	88%	88%
Verizon California	U-1002-C	70%	60%	65%	69%
SureWest Companies	U-1015-C; U-6324-C	85%	91%	85%	88%
CTC of California, Inc.	U-1024-C	81%	52%	76%	84%
Frontier Communications of the South West	U-1026-C	89%	81%	76%	83%

[20] Decision 09-07-019, pp. 53-54 and G.O. 133-C Section 3.5.d.

The results for URF CLECs were similarly problematic. As shown in Table 8, only four of the URF CLECs met the minimum standards for the Answer Time measure in all four reporting years. There are seven carriers which failed to meet the standard in at least one of the four reporting years. However, all the other carriers' that met the minimum standard showed no improvement and/or had a decline in their performance over the four years.

Table 8. URF CLECs Answer Time Measure Annualized Results

URF CLECS	Utility Number(s)	2010	2011	2012	2013
ACN Communication Services, Inc.	U-6342-C	--	--	--	63%
Advanced TelCom	U-6083-C	97%	97%	83%	83%
Astound Broadband	U-6184-C	47%	61%	70%	69%
AT&T Communications	U-5002-C	88%	87%	72%	75%
Charter Fiberlink CA-CCO, LLC	U-6878-C	89%	90%	85%	82%
Cox California Telecom	U-5684-C	--	86%	82%	86%
Electric Lightwave	U-5377-C	98%	96%	89%	83%
PAETEC Communications	U-6097-C	--	--	71%	68%
Sonic Telecom	U-7002-C	--	40%	45%	68%
Telscape Communications	U-6589-C	--	--	83%	67%
TelePacific Communications Companies	U-5721-C; U-5859-C; U- 5248-C	100%	86%	82%	69%

Appendix B of this Staff Report provides the G.O. 133-Summary of Carrier Annualized Results filed from 2010 to 2013.

IV. Analysis of AT&T California and Verizon California OOS Reports

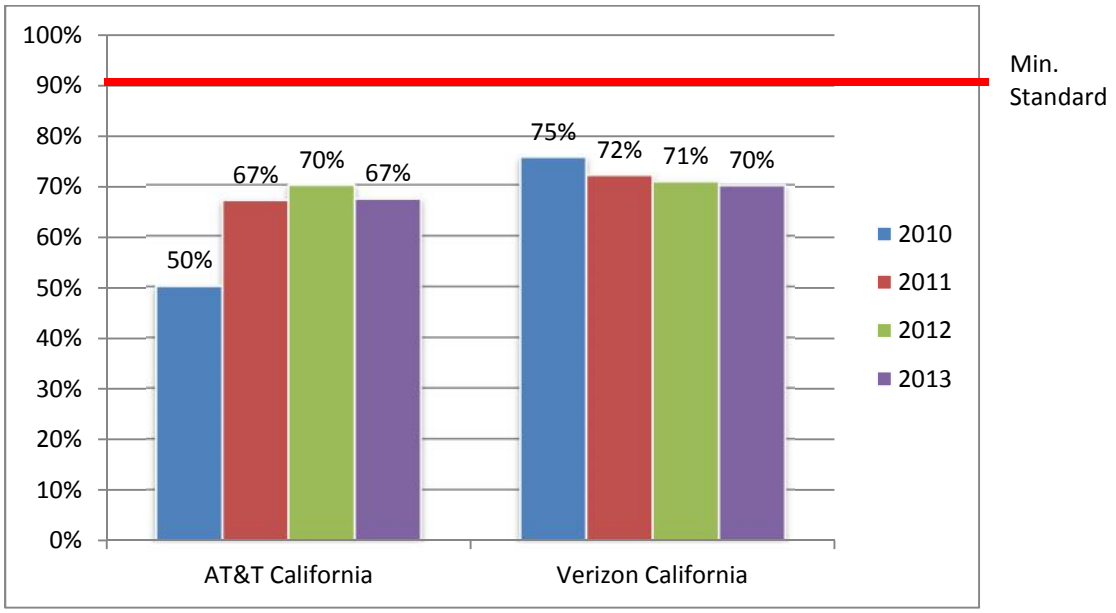
A. Comparison of OOS Reported Results (Adjusted Results)[21]

Service quality problems can adversely affect the public's safety and the state's economy.[22] As previously discussed, AT&T and Verizon are the two carriers which collectively operate approximately 88% of all working lines in California, reported pursuant to G.O. 133-C from 2010 to 2013. Based on the URF carriers' reported results of the OOS repair interval measures, AT&T and Verizon did not meet the minimum standard from 2010 to 2013. Chart 2 below provides AT&T and Verizon's annualized reported percentages of OOS repair interval reports wherein tickets were repaired in 24 hours from 2010 to 2013. AT&T's service restoral results

[21] Reported results are also referred to as "Adjusted Results" in that the data reported excludes Sundays and federal holidays and tickets when maintenance is delayed due to circumstances beyond the carrier's control pursuant to G.O. 133-C §3.4.5. Unadjusted results are derived from the raw data that supports the reported results and submitted by the carriers without applying the allowed exemptions.
[22] PU Code §§ 451 and 709(h).

ranged from 50% to 70%, whereas Verizon ranged from 70% to 75%. These reported results exclude those outages that fall under G.O. 133-C Section 3.4.b exemptions: Sundays, federal holidays, catastrophic events, widespread outages, and customer-requested appointments.

Chart 2: Percent of OOS Reports Repaired within 24 Hours from 2010 to 2013
(Annual Average, As Reported)



B. Comparison of OOS Unadjusted Results (Raw Data)

Analyzing AT&T and Verizon's unadjusted OOS repair interval data helps provide a more accurate picture as to the quality of service their customers experience on an everyday basis because it includes those outages that are otherwise exempted from the G.O. 133-C reporting requirements. Summaries of both AT&T and Verizon's unadjusted OOS repair interval data from 2010 to 2013 are as follows:

- Over the four reporting years, AT&T experienced a total of 3,214,160 outage reports and repaired 51% of those outages within 24 hours. In 2010, AT&T repaired 37% of its outage reports within 24 hours which was their lowest performing year. Their highest incidence of repairing outages was in 2012 with 61% of outages repaired within 24 hours.

- Verizon experienced a total of 694,045 outage reports in the span of four years, repairing 63% of these outages within 24 hours. Verizon's lowest OOS repair interval was 62% in 2010 and the year with the highest percentage of outages repaired was in 2012, with 66% of the outages repaired within 24 hours.

- Together, AT&T and Verizon repaired outages corresponding to just 53% of their combined 3.908 million unadjusted OOS repair interval reports within 24 hours during the years from 2010 to 2013.

C. Comparison of Adjusted and Unadjusted OOS Results

Staff compared AT&T and Verizon's unadjusted OOS repair interval results to the carriers' adjusted reports to see the actual level of service their customers experience on an everyday basis. Staff determined that from 2010 to 2013, AT&T and Verizon both had a higher number of unadjusted OOS repair interval reports and much lower percentage of unadjusted outage reports repaired within in 24 hours. Both carriers experienced an approximately 10% increase of the number of adjusted to unadjusted reported OOS report tickets repaired within 24 hours. See Table 9 below for additional details of this comparison.

Currently, carriers are allowed to exclude from outage duration calculations: Sundays and federal holidays; maintenance delays caused by circumstances outside of the carrier's control; customer-requested appointments; and catastrophic events (e.g. an event where there is a declaration of a state of emergency by a federal or state authority); and a widespread outage that affects 3% of the carrier's customers in the state. Staff recommends that the Commission consider using unadjusted raw data results for calculating and reporting outage durations with one exemption – customer-requested appointments, -- as opposed to the current adjusted results. The reasons for using unadjusted results are:

- The exemptions only affect the reported results by approximately 10% and do not bring the carriers significantly closer to meeting the adopted measurement standard,

- It is difficult to replicate the carriers' calculations used for reporting purposes because exempted conditions are hard to identify, and

- Different carriers have different interpretations on how exempted conditions are treated (e.g. when do catastrophic events and/or State emergencies begin and end, etc.)

Table 9. Comparison of the Annualized Unadjusted (Raw Data) and the Adjusted (As Reported) from 2010 to 2013

Carrier Name	Total OOS Tickets		Percent of OOS Repaired w/in 24Hrs	
	Unadjusted (Raw Data)	Adjusted (as Reported)	Unadjusted (Raw Data)	Adjusted (as Reported)
AT&T California	3,214,160	2,447,640	51%	62%
Verizon California	694,045	579,789	63%	73%
Combined Total	3,908,205	3,027,429	53%	64%

Appendix C of this Staff Report provides the details of the AT&T and Verizon Unadjusted and Adjusted OOS Repair Interval Results from 2010 to 2013.

D. Analysis of Actual OOS Repair Interval (Unadjusted Basis)

Staff analyzed the percentage of actual time it took AT&T and Verizon to repair outages for the combined period of 2010 to 2013, using 24 hour increments: 24, 48, 72, and 96 hours in order to gain a better overall perspective on their OOS repair performance. The 24 hours increment is based on the G.O. 133-C OOS reporting standard of repairing outages within 24 hours 90% of the time.

Table 10 below provides the percentage of repairs at the repair interval durations. As previously discussed, AT&T and Verizon repaired 51% and 63%, respectively, of their outages within 24 hours from 2010 to 2013. At the 48 hour/ two day interval, AT&T and Verizon achieved respective repair rates of 72% and 78%. For the 72 hour/ three day interval, AT&T and Verizon still fell below the 90% level, achieving respective repair rates of 83% and 86%. Lastly on a combined basis from 2010 to 2013, AT&T and Verizon each repaired outages (89% and 90% of the time, respectively) within 96 hours/ four days.

Table 10. Combined Out of Service Repair Percentages at 24 Hour Intervals from 2010 to 2013 (Based on a combined total of 3.908 Million Unadjusted OOS Repair reports)

Interval	AT&T California	Verizon California	Combined
24 Hours	51%	63%	53%
48 Hours	72%	78%	73%
72 Hours	83%	86%	84%
96 Hours	89%	90%	90%

For the combined years 2010 and 2011, AT&T and Verizon each needed on average, up to 110 hours to repair 90% of actual outages. However, in the subsequent combined years 2012 and 2013, both carriers improved their respective OOS repair times, with each repairing at least 90% of their outages within the 72 hours. CD believes that having three days without phone service and the ability to dial 9-1-1 compromises public safety.

Appendix C of this Staff Report provides the details of the AT&T and Verizon Unadjusted and Adjusted OOS Repair Interval Results from 2010 to 2013.

E. Corrective Action Reports

Pursuant to G.O. 133-C Section 6.2, carriers that do not meet the minimum standards for any service quality measures for two or more consecutive quarters are required to provide a corrective action report. The report contains a description of their performance at the reported level, a statement of action being taken to improve service, and the estimated date of completion of any improvements. AT&T and Verizon have provided corrective action reports for every quarter from 2010-2013, during which time they failed to achieve one or more of the minimum service quality standards. In each report, both companies essentially reiterated the same proposed corrective actions. Given that both companies have continued to miss the minimum standard for the OOS repair interval measure, these corrective actions have not been effective in

improving service restoral time or in meeting the Commission's minimum standard for the OOS repair interval measure. Among the actions taken by the carriers are below:

AT&T's corrective actions to improve service include:

1. Increase overtime.
2. Borrow personnel from other groups for field work.
3. Defer certain low priority/routine maintenance, training, and administrative work.
4. Maintain reduced level of non-productive time.
5. Increase seasonal workforce when appropriate.
6. Implement a system/process to increase dispatch effectively. Maximize resources during peak conditions.
7. Increase cross training to expand the number of available technicians.
8. Do more preventive field maintenance.

Verizon's corrective actions to improve service include:

1. Implement system enhancements to improve repair dispatch.
2. Implement processes to improve OOS performance through performance awareness and education.
3. Reassign offline employees to improve answer times.
4. Adjust business hours to meet call volume patterns in peak times.
5. Reschedule trainings so more employees can take calls.
6. Approve increased overtime.
7. Reassign technician to ensure resources are geographically aligned with call volumes.
8. Establish technician call through process to increase contact with customers before and after appointment and to help eliminate unnecessary dispatches.
9. Implement employee engagement network rehabilitation initiative to require technicians to document report and track any deteriorating plant facilities.
10. Implement quality inspection process to ensure quality standards.

Given the above results, the Commission's reliance on the carrier's corrective action plans has not been an effective means to improve service quality performance.

V. Assessment of Alternatives to G.O. 133-C Measures and Penalty/Incentive Methodologies

As discussed previously in this report, the largest telephone corporations in the state are not meeting the Commission's minimum OOS repair interval and Answer Time standards. Staff believes that the ongoing failure of carriers to meet the minimum standards of the service quality measures warrants consideration of revising the current measures and adopting penalty/ incentive methodologies to motivate the carriers to improve performance. Below is a discussion of the alternatives to the current service quality measures and standards as well as alternatives to consider in adopting penalty/incentive methodologies.

A. Alternatives to Service Quality Measures and Standards

a. CPUC Wholesale Performance Measures

Staff looked at AT&T's and Verizon's internal service restoral standards as a means to provide context to each companies' performance in meeting the standard for the G.O. 133-C OOS repair interval measure, and to assess whether these internal standards may be potential replacements for the G.O. 133- C OOS standard, and whether the penalty methodology[23] associated with these standards would be appropriate to adopt for G.O. 133.

The Commission adopted specific measures, referred to as wholesale performance measurements (PM)[24] to provide a means assess whether each company was providing facilities and support systems as required. There are two wholesale repair PMs that are similar to the OOS repair interval measure in G.O. 133-C.

1. PM 21 (Average Time to Restore Service) applies to both AT&T and Verizon and measures the average duration of customer trouble reports from the receipt of the customer trouble report to the time the trouble is cleared.

2. PM 22 (Plain Old Telephone Service (POTS) Out of Service Less Than 24 hours), which measures the percentage of POTS out-of-service trouble reports restored in less than 24 hours. PM 22 applies only to Verizon and similar to G.O. 133-C's calculation for "OOS Repair Interval" which measures the percentage of outage restored within 24 hour standard.

There are no preset numerical benchmarks for either of these two wholesale PMs as they are based on actual performance; e.g., comparing the time it takes each company to restore service in its own retail operations to the time it takes each company to restore service to CLEC customers. This is called Retail Parity.[25] Below is a list of the similarities and differences of the wholesale PM from the G.O. 133-C measures.

1. Wholesale PMs allow certain exemptions in calculating the OOS repair intervals and OOS repair performance. While the exemptions are not identical between wholesale PMs and G.O. 133-C, they both exempt trouble tickets that take place during weekends and delays which are beyond AT&T and Verizon's control.

[23] The financial penalty "Performance Incentive Plan" was adopted by the Commission in D.08-12-032.
[24] D.07-09-009.
[25] For example, for PM21, if AT&T takes an average of 12 hours to restore service outage for its retail customers for a particular month; it also must restore service outage for each of its CLEC customers averaging no more than 12 hours for that month. The same principle applies for PM22, if Verizon restores 80% of its retail customers' service outage within 24 hours; it also must restore at least 80% of the POTS service outages experienced by each of its CLEC customers within 24 hours for the same month.

2. Wholesale PM retail parity is calculated using all of AT&T's and Verizon's retail customers whereas G.O. 133-C measures OOS performance for residential and small business (fewer than five access lines) customers only.

3. Wholesale PMs have financial penalties when AT&T or Verizon fails to provide service to the CLECs that are equivalent or better than the retail parity benchmark for the respective time period.

Staff does not recommend using the wholesale PM as an alternative to the G.O. 133-C OOS measures because the repair times are significantly longer than reported for the similar G.O. 133-C OOS repair time measures. Additionally, the PMs were developed through negotiations between carriers on a commercial basis and were designed for carrier-to-carrier relationships with both business and residential customers, and not for carrier to individual end-user relationships.

b. Service Quality Measures and Standards in Other States

Staff researched the various state commission websites and sent a data request to all state regulating agencies regarding their wireline telecommunications service quality measures and applicable penalty/incentive methodologies. CD staff also integrated information from "*The Year in Review: The Status of Telecommunications Deregulation in 2012*".[26] Excluding California, staff was able to obtain information from the District of Columbia and 47 states. Staff had difficulty obtaining any information related to service quality from North Dakota and West Virginia.

According to the results, the District of Columbia and 37 states have both oversight and implement service quality standards similar to those in California, which focuses on reporting levels related to installation (installation intervals and commitments met), maintenance (customer trouble report and OOS repair interval reports) and answer times. Missouri and Mississippi have limited its level of oversight prescribed by the FCC. On the other hand, Illinois and New Hampshire have limited their service quality oversight to specific types of companies.

Ten states that have eliminated service quality oversight because of deregulation: Arkansas, Florida,[27] Indiana, Michigan, Nevada, Oklahoma, Rhode Island, Tennessee, Wisconsin and Texas. These state's deregulation laws eliminated service quality measures and oversight.[28]

[26] June 2012. National Regulatory Research Institute (NRRI). Author: Sherry Lichtenberg, Ph.D.
[27] FL Chapter 2011-36, Florida Regulatory Reform Act (originally HB1231), available at http://laws.flrules.org/files/Ch_2011-036.pdf.
[28] Texas and Arkansas most recently passed legislation to eliminate service quality regulation. See Acts 2011, 82nd R.S., Ch. 98, General and Special Laws of Texas (formerly SB980), available at http://www.legis.state.tx.us/tlodocs/82R/billtext/pdf/SB00980F.pdf#navpanes= and Arkansas Act 594 section 5.(B) (ftp://www.arkleg.state.ar.us/acts/2011/Public/ACT594.pdf).

California's service quality measures and standards appear to be consistent with other states' standards. Following are the general overview of the service quality measures and standards for the other states:

Installation Related Measures. The service objectives established by the states ranged between 75% to 95% completion of service orders within five days. Oregon[29] allows 90% completion of service orders within six days and Hawaii[30] requires 90% of all service requests completed within three days only. This compares well with California's 95% standard within five days.

Customer Trouble Reports. The service objective range is from two to eight trouble reports per 100 access lines. Like California, Kansas, Oregon and South Carolina, implemented different minimum standards depending on the amount of total access lines per exchange or reporting unit. This compares closely with California's standard ranging from six to ten trouble reports per 100 access lines depending on the size of the reporting unit.

OOS Repair Interval Reports. The service objective of other states is to clear the outages 70% to 95% within 24 hours, compared to California's 90% within 24 hours standard. The following states implement additional standards for various duration intervals:

- Iowa:[31] (1) 85% within 24 hours; (2) 95% within 48 hours; and (3)100% within 72 hours
- Idaho:[32] (1) 80% within 48 hours; and (2) 80% within 16 hours for emergency events
- Virginia:[33] (1) 80% within 48 hours; and (2) 95% within 96 hours

Illinois[34] and Oregon requires 95% of their OOS reports cleared within 30 hours and 38 hours, respectively. Washington[35] requires 100% of OOS reports cleared within 48 hours. California's OOS repair interval measure is consistent with other states.

[29] Oregon service quality standards available at http://arcweb.sos.state.or.us/pages/rules/oars_800/oar_860/860_tofc.html and http://www.puc.state.or.us/Pages/telecom/squality/explanation.aspx.
[30] Hawaii service quality standards available at http://puc.hawaii.gov/wp-content/uploads/2013/04/Chapter-6-80.pdf. See Section 6-80-93 Standards for Service Quality.
[31] Iowa service quality standards available at https://www.legis.iowa.gov/docs/ACO/chapter/07-23-2014.199.22.pdf.
[32] Idaho service quality standards available at http://www.puc.idaho.gov/laws/Telephone_customer_relations_rules_2010.pdf (See rules 500 through 599).
[33] Virginia service quality standards available at http://leg1.state.va.us/000/reg/TOC20005.HTM.HTM#C0428 and http://leg1.state.va.us/cgi-bin/legp504.exe?000+reg+20VAC5-428-90.
[34] Illinois Administrative Code Part 730 SUBPART E available at http://www.ilga.gov/commission/jcar/admincode/083/08300730sections.html.
[35] Washington service quality standards available at shttp://www.utc.wa.gov/regulatedindustries/utilities/telcom/Pages/ServiceQualityReports.aspx.

Answer Time. The answer time range for other states is 80% to 100% answered by a live operator within 10 to 40 seconds. California's standard is relatively less onerous as it only requires calls to be answered within 80% of the time in 60 seconds.

Corrective Action Reporting. At least fourteen states require carriers to file corrective action reports when they miss the minimum standard for each measure. Among the states with corrective action reporting requirements are: Alaska, Connecticut, Minnesota, Wyoming, Vermont, Texas, South Carolina, Pennsylvania, New Jersey, Maine, Kentucky, Kansas, Illinois and District of Columbia.

c. Technology Neutral Service Quality Standards

The Commission last reviewed its policy regarding VoIP in Investigation (I.) 04-02-007, which resulted in issuance of D.06-06-010. Therein, the CPUC concluded that the FCC has determined that it, and not the states, will prescribe what regulations apply to interconnected VoIP service carriers. Subsequently, P.U. Code Section 710 was enacted January 1, 2013, and it prohibits the CPUC from exercising regulatory jurisdiction and control over interconnected VoIP services, with only limited exceptions. While the CPUC retains jurisdiction over physical facilities, none of the exceptions to §710 explicitly address the CPUC's jurisdiction over service quality or public safety.[36]

Regarding wireless, the Omnibus Budget Reconciliation Act of 1993 preempted the states from regulating rates or market entry of Commercial Mobile Radio Service (CMRS) carriers, while preserving state authority over terms and conditions of service. In Investigation (I.) 93-12-007, the Commission issued D.94-10-031, which found that, other than the specific areas of federal preemption, the Commission's jurisdiction over CMRS carriers remained unchanged. Nonetheless, the Commission has not, to date, adopted any service quality measures or standards for CMRS carriers.

General Order 133-C service quality measures currently apply only to facilities-based ILECs and facilities-based CLECs with 5,000 or more customers which offer telephone service to residential and small business customers. Interconnected VoIP and wireless carriers have intentionally been exempted.[37] With more and more customers shifting from wireline service to interconnected VoIP and wireless services, the Commission may want to address if and how the Commission should ensure service quality for interconnected VoIP and wireless services. The Commission should consider adopting service quality rules to interconnected VoIP and wireless carriers so that all voice communications customers in California have safe and reliable service regardless of the technology used.

[36] Warren 911 Emergency Assistance Act Government Code Title 5, Division 2, Part 1, Chapter 1, Article 6, §53100 through 53120, particularly §53114.1.
[37] D.09-07-019, p. 23.

B. Alternatives to Service Quality Penalty/Incentive Methodologies

a. Prior Commission Penalty Methodology (D.01-12-021)

In Decision (D.) 01-12-021, the Commission adopted a penalty mechanism for AT&T's predecessor company, Pacific Bell Telephone Company (Pacific Bell), for failing to maintain or improve service as a condition of the merger of SBC and Pacific Bell.[38] The penalty required Pacific Bell to pay $300,000 for each month of the year that it did not meet the repair standards for initial and repeat OOS repair intervals established in D.01-12-021. These repair standards were based on the FCC Automated Reporting Management Information System (ARMIS) of 29.3 average hours for initial OOS and 39.4 hours for repeat OOS.

While neither this nor other penalty mechanism was adopted in G.O. 133-C, the Commission recognized that there should be certain ramifications for failure to meet the minimum standards for the G.O. 133-C service quality measures and adopted the following remedial actions:

- Meet with CD staff if a carrier misses two or more reported measures below the adopted standard in one year or two years in a row below the reported industry average (e.g. OOS repair within 24 hours 90% of the time);

- Staff may require a monthly reporting for continued poor performance during the following three months; and

- Staff may recommend the Commission institute a formal investigation into a carrier's performance and alleged failure to meet the reporting service level for six or more consecutive months.

As discussed in this report, since the adoption of G.O. 133-C, AT&T and Verizon have continually failed to meet the minimum standard for the OOS repair interval measure of repairing 90% of the outages within 24 hours. Staff has implemented the remedial actions adopted in G.O. 133-C, such as meeting with the companies to discuss actions to improve performance and recommended that the Commission open an investigation - which the Commission did in R.11-12-001. Regardless, many of the URF carriers continue to miss the G.O. 133-C OOS repair interval measure.

If the Commission considers adopting a penalty methodology, CD staff recommends scaling the financial penalty based on the size of the carrier in some manner, such as the number of access lines and intrastate revenues. There is a vast difference in size between the carriers that are covered by G.O. 133-C. AT&T is by far the largest of the reporting carriers in some manner, such as the number of access lines and intrastate revenues. Applying the same financial penalty to all carriers reporting under G.O. 133-C would be disproportionate on the smaller carriers and would not be reasonable or fair. Using the penalty methodology adopted in D.01-12-021 as an example. AT&T and Verizon did not meet the OOS repair interval standard of 90% within 24

[38] D.97-03-067. SBC and Pacific Bell Merger.

hours in 2013. This would have resulted in a financial penalty of $3.6 million for each company. Verizon has approximately one third of the working telephone lines that AT&T has, see Chart 1 of this Staff Report.

b. Service Quality Penalty/Incentive Methodologies in Other States

For the 37 states and the District of Columbia that continue to have service quality oversight, ten assess fines and penalties for carriers that are in direct violation of their state's service quality measures and standards. These states are: Alaska, Colorado, Kansas, Louisiana, Massachusetts, Mississippi, New Mexico, New York, Vermont and Washington.

Alaska and New Mexico, for example, have penalties of up to $1,000 per day for every day a carrier is in violation of one or more service quality rules, with the maximum amount being $200,000 and $25,000, respectively, for a group of the same or similar violations.[39] Several other states on the other hand, assess any penalties on a monthly or annual basis, such as in Kansas,[40] Louisiana,[41] New York,[42] and Vermont.[43]

Massachusetts[44] and Mississippi[45] stand out because each has a detailed methodology for calculating financial penalties for carriers violating the state's service quality measures and standards. While no specific dollar amounts are provided, the penalties in each of the states vary depending on a company's size, their revenue, as well as how much they miss one or more standards.

In addition to the ten states listed above, there are fourteen other states that have general authorities from their respective Administrative codes to fine carriers for violating state laws that relate to telecommunications. For example, Nebraska[46] can assess penalties of up to $10,000 per

[39] Alaska penalty mechanism information available at http://www.legis.state.ak.us/basis/statutes.asp#42.05.561 and New Mexico penalty mechanism information available at http://law.justia.com/codes/new-mexico/2011/chapter63/article7/section63-7-23/ and http://www.nmcpr.state.nm.us/nmac/parts/title17/17.011.0022.pdf.
[40] Kansas penalty mechanism information available at http://estar.kcc.ks.gov/estar/ViewFile.aspx/20080523100759.pdf?Id=45fc4c8c-4a57-4fbb-8803-20bbfaceaba9.
[41] Louisiana penalty mechanism information available at http://www.lpsc.org/_docs/_Orders/General%20Order%2003-11-2014%20(R-31839)%20(4).pdf.
[42] New York penalty mechanism information available at http://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId={ED1CA26A-DC83-497B-9C38-3DDFCBA3966B}.
[43] Vermont penalty mechanism information available at http://publicservice.vermont.gov/sites/psd/files/Info_Utilities/RETAIL_SERVICE_QUALITY_REPORTING_INSTRUCTIONS.doc.
[44] Massachusetts penalty mechanism information available at http://www.mass.gov/ocabr/docs/dtc/admin/fy2013annualreport.pdf.
[45] Mississippi: Reference Docket Number 2007-UN-123 Section 8.
[46] Nebraska penalty mechanism is available at http://psc.nebraska.gov/orders/telecom/C-2940.1.pdf and See Neb. Rev. Stat. section 75-156.

day for each day a carrier is in violation of a state law within the jurisdiction of their utility regulatory agency, with the maximum amount per carrier being $2,000,000 annually.

The District of Columbia (DC) [47] does not currently have a penalty methodology in place. However, DC currently has an open rulemaking (Docket No. RM27.2014-01) proposing changes to its service quality measures and to apply a penalty methodology. The DC Commission may impose a penalty of up to $100,000 for each violation of the service quality rules.

In contrast to penalties, Oregon[48] has an incentive for carriers meeting all the service quality reporting requirements. In Oregon, its Commission may grant a large telecommunications utility's petition for an exemption from service quality reporting requirements if it meets all service quality objective service levels for the 12 months prior to the month in which the petition is filed.

In some cases, there are states that have general authorities that allow a carrier to file a written petition to request for waiver or exemption from reporting. Among them are Alaska, Arizona, Delaware, Hawaii, Maine, Minnesota, Montana, North Carolina, South Dakota, and Washington. However, it is the responsibility of the carrier seeking the waiver or exemption to prove that granting the request is in the public interest.

Staff recommends that the Commission consider using penalty/incentive methodologies from other states to help develop California service quality penalty/incentive methodologies.

VI. Reporting of 9-1-1 Outages and Catastrophic Events

Currently, the Commission has no specific requirements for 9-1-1 outages, other than the carriers providing copies of outage reports submitted to the FCC through its Network Outage Reporting System (NORS).[49] The NORS reports are for all reportable outages, including 9-1-1. Part 4 of the FCC rules identify four areas of 9-1-1 outage: loss of communication to Public Service Answering Points (PSAP) (e.g. no customer access to call 9-1-1), loss of delivery of name and location information[50] to the PSAP, loss of communication of a central office or Mobile Switching Center (MSC) to a PSAP, loss of 9-1-1 call processing capabilities in one or more E 9-

[47] District of Columbia service quality rules available at http://www.dcregs.dc.gov/Gateway/FinalAdoptionHome.aspx?RuleVersionID=3828413 and http://www.dcregs.dc.gov/Gateway/RuleHome.aspx?RuleNumber=15-2720.
[48] Oregon incentive mechanism information available at http://arcweb.sos.state.or.us/pages/rules/oars_800/oar_860/860_023.html.
[49] Part 4 of the FCC's rules (47 C.F.R. Part 4). On November 13, 2009, the CPUC petitioned the FCC for a Rulemaking on States' Access to NORS (ET Docket 04-35). On January 17, 2014, the CPUC commented in PS Docket no. 13-239 and PS Docket no. 11-60 urging the FCC to provide states direct access to Disaster Information Reporting System (DIRS) and NORS. At this time, CD obtains copies of reports filed with the NORS through emails. It is a burdensome process to recover and analyze information. An efficient alternative to the current method of submitting NORS reports would be an automated system.
[50] Automatic Number Identification (ANI) and Automatic Location Identification (ALI).

1-1 switches or routers which affects the ability of first responders to communicate. Additionally, the NORS reporting threshold is an outage of 30 minutes and has the potential to affect 900,000 user minutes.[51] This reporting threshold level can be difficult to reach when outages are targeted or isolated (e.g. rural areas, acts of terrorism or regional natural disasters, etc.) which can result in the unavailability of 9-1-1 and where public safety is at risk.

Catastrophic events and widespread service outages are also exempted from calculating OOS duration results as are Sundays and federal holidays.[52] There is a lack of definition in G.O. 133-C as to when a state of emergency and/or catastrophic events begins and ends. This scenario allows subjectivity in calculating service restoration times. As discussed in the comparison of adjusted versus unadjusted results section of this report, staff recommends that the Commission eliminate exemptions except for customer-requested appointments for calculating and reporting outage durations. However, if the Commission continues to allow exemptions for calculating OOS duration results, staff recommends setting a definition of when catastrophic events and widespread service outages begin and end. Staff also recommends that carriers be required to separately identify each outage that occurred during a catastrophic event with sufficient detail to support the calculation of G.O. 133-C outage duration results.

The Commission has not adopted requirements for carriers to report damage to communication infrastructure when public safety is at risk (e.g. 9-1-1 outages) due to catastrophic events. CD staff recommends that the Commission adopt requirements for reporting outages, and also recommends adopting periodic status report requirements to keep the Commission up-to-date on repairs and service restoral.

In line with FCC NORS reporting requirement to the Commission, the Commission should consider whether and how interconnected VoIP service carriers would report with the Commission when the carrier files its NORS reports with the FCC.

The specifics of the changes to the service quality rules recommended in this staff report should be developed with industry and other stakeholders input.

[51] 47 C.F.R. §4.7(e) defines the term "user minutes," to capture the impact of an outage, as: (1) assigned telephone number minutes (defined in 47 C.F.R. §4.7(c)), for telephony, including non-mobile interconnected VoIP telephony, and for those paging networks in which each individual user is assigned a telephone number; (2) the mathematical result of multiplying the duration of an outage, expressed in minutes, by the number of end users potentially affected by the outage, for all other forms of communications. For wireless service carriers and interconnected VoIP service carriers to mobile users, the number of potentially affected users should be determined by multiplying the simultaneous call capacity of the affected equipment by a concentration ratio of 8.

[52] D.01-12-021 stated that catastrophic events and widespread outages are circumstances beyond the carrier's control. D.09-07-017 defined catastrophic event as any event in the reporting carrier's service area for which there is a declaration of a state of emergency by federal or state authority and widespread service outages as an outage affecting at least 3% of the carrier's customers in the state.

VII. Conclusion and Recommendations

The majority of the wireline carriers reporting pursuant to G.O. 133-C are meeting the minimum service quality standards for each measure. The fourteen GRC ILECs generally met all the minimum standards for all five service quality measures from 2010 to 2013. For the URF ILECs and CLECs, the results are problematic in general for OOS repair interval and Answer Time measures. Staff remains concerned with AT&T's and Verizon's service quality because they are the two largest carriers in the telecommunications industry and the two carriers with the highest number of reported working telephone lines in California. For all four reporting years, AT&T failed to meet the standard for the OOS repair interval measures and Verizon failed to meet the standards for both the OOS repair interval and Answer Time measures.

Communications Division staff believes that it is important to continue monitoring the service quality performance of the wireline telephone carriers that are required to report under G.O. 133-C. Despite the decrease in the number working lines due to the migration to alternative technologies, there are California customers who rely heavily on wireline service, especially if it is the only available technology to access needed 9-1-1 services during times of an emergency.

The Commission can meet its obligation under P.U. Code Section 451 to ensure that safe and reliable service is provided at reasonable rates if the telephone corporations are motivated to meet the minimum telephone service quality measures and standards adopted by the Commission.

CD staff recommends the Commission consider the following with industry and other stakeholders input for the specific details:

- Adopt penalty/incentive methodologies to motivate the carriers to improve performance. Among the factors to consider include, but are not limited to:
    - Information from other states to help develop California service quality penalty/incentive methodologies.
    - The size of the carrier (e.g. the number of access lines, intrastate revenues, etc.).
- Modifying and clarifying the calculation methodology for the OOS repair interval measure:
    - Use raw/unadjusted data results by eliminating exemptions for Sunday's, Federal Holiday, States of Emergency, and Catastrophic events (e.g. conditions outside of the carriers' control), but continue to allow an exemption for customer-requested appointments. The repair tickets associated with customer-requested appointments must be clearly identified in the raw data so that staff can readily duplicate the calculation.

  - Set a standard for determining the duration of catastrophic events and widespread service outages to provide clarity as to when a state of emergency and/or catastrophic event begins and ends.

- Consider adopting service quality rules for interconnected VoIP and wireless carriers.

- Adopt new reporting requirements for outages due to catastrophic events and events that affect public safety.

  - Consider whether and how interconnected VoIP service carriers would report with the Commission when the carrier files its NORS reports with the FCC.

  - Require carriers to separately identify each outage that occurred during a catastrophic event with sufficient detail to support the calculation of G.O. 133-C outage duration results.

  - Periodic status report requirements to keep the Commission up-to-date on repairs and service restoral.

Appendix A: List of Reporting Carriers and Annualized Average Reported Working Telephone Lines from 2010 to 2013

Appendix A: List of Reporting Carriers and Annualized Average Reported Working Telephone Lines from 2010 to 2013

Type	Company Name	Utility Number	2010		2011		2012		2013		Combined 2010-2013	
			Avg. No. of Working Lines	%	Avg. No. of Working Lines	%	Avg. No. of Working Lines	%	Avg. No. of Working Lines	%	Avg. No. of Working Lines	%
URF ILECS	AT&T California	U-1001-C	7,602,852	66.24%	6,681,195	65.40%	5,837,297	64.71%	4,651,318	61.71%	6,193,165	64.76%
	Verizon California	U-1002-C	2,641,467	23.01%	2,322,926	22.74%	2,021,180	22.41%	1,706,402	22.64%	2,172,994	22.72%
	SureWest Telephone & SureWest TeleVideo (dba SureWest Broadband)	U-1015-C; U-6324-C	41,944	0.37%	33,513	0.33%	28,114	0.31%	25,062	0.33%	32,158	0.34%
	Citizens Telecommunications Company of California, Inc.	U-1024-C	126,869	1.11%	119,510	1.17%	112,160	1.24%	101,998	1.35%	115,134	1.20%
	Frontier Communications of the South West	U-1026-C	8,656	0.08%	8,128	0.08%	8,351	0.09%	7,715	0.10%	8,213	0.09%
URF CLECS	ACN Communication Services, Inc.	U-6342-C	no filing	NA	no filing	NA	no filing	NA	21,607	0.29%	5,402	0.06%
	Advanced TelCom	U-6083-C	11,157	0.10%	9,646	0.09%	7,888	0.09%	6,486	0.09%	8,794	0.09%
	Astound Broadband	U-6184-C	18,408	0.16%	14,510	0.14%	11,909	0.13%	9,741	0.13%	13,642	0.14%
	AT&T Communications	U-5002-C	1,666	0.01%	1,315	0.01%	1,049	0.01%	840	0.01%	1,218	0.01%
	Charter Fiberlink CA-CCO, LLC	U-6878-C	179,453	1.56%	195,445	1.91%	212,686	2.36%	57,177	0.76%	161,190	1.69%
	Cox California Telecom	U-5684-C	679,634	5.92%	656,474	6.43%	599,913	6.65%	567,671	7.53%	625,923	6.55%
	Electric Lightwave	U-5377-C	19,556	0.17%	24,876	0.24%	24,958	0.28%	23,055	0.31%	23,111	0.24%
	Paetec Communications	U-6097-C	no filing	NA	No Data	NA	No Data	NA	202,759	2.69%	50,690	0.53%
	Sonic Telecom	U-7002-C	no filing	NA	11,271	0.11%	25,463	0.28%	38,076	0.51%	18,703	0.20%
	Telscape Communications	U-6589-C	58,344	0.51%	53,164	0.52%	50,750	0.56%	43,890	0.58%	51,537	0.54%
	U.S. TelePacific Corp., Mpower Communications Corp. & Arrival Communications, Inc. d/b/a TelePacific Communications	U-5721-C; U-5859-C; U-5248-C	11,345	0.10%	9,123	0.09%	7,037	0.08%	5,571	0.07%	8,269	0.09%
GRC ILECS	Calaveras Telephone	U-1004-C	3,546	0.03%	3,749	0.04%	3,688	0.04%	3,613	0.05%	3,649	0.04%
	Cal-Ore Telephone	U-1006-C	2,246	0.02%	2,122	0.02%	2,705	0.03%	1,983	0.03%	2,264	0.02%
	Ducor Telephone	U-1007-C	1,155	0.01%	1,129	0.01%	1,092	0.01%	1,036	0.01%	1,103	0.01%
	Foresthill Telephone	U-1009-C	2,820	0.02%	2,685	0.03%	2,534	0.03%	1,497	0.02%	2,384	0.02%
	Frontier Communications West Coast	U-1020-C	11,039	0.10%	10,214	0.10%	9,575	0.11%	8,919	0.12%	9,937	0.10%
	Happy Valley Telephone	U-1010-C	3,176	0.03%	3,083	0.03%	2,927	0.03%	2,893	0.04%	3,020	0.03%
	Hornitos Telephone	U-1011-C	606	0.01%	593	0.01%	591	0.01%	583	0.01%	593	0.01%
	Kerman Telephone	U-1012-C	6,155	0.05%	6,041	0.06%	5,666	0.06%	5,387	0.07%	5,812	0.06%
	Pinnacles Telephone	U-1013-C	248	0.00%	248	0.00%	250	0.00%	249	0.00%	249	0.00%
	Ponderosa Telephone	U-1014-C	8,498	0.07%	8,245	0.08%	8,088	0.09%	7,928	0.11%	8,190	0.09%
	Sierra Telephone	U-1016-C	20,416	0.18%	19,615	0.19%	18,570	0.21%	18,568	0.25%	19,292	0.20%
	Siskiyou Telephone	U-1017-C	5,232	0.05%	5,239	0.05%	5,243	0.06%	5,241	0.07%	5,239	0.05%
	Volcano Telephone	U-1019-C	10,440	0.09%	10,159	0.10%	9,898	0.11%	9,732	0.13%	10,057	0.11%
	Winterhaven Telephone	U-1021-C	985	0.01%	909	0.01%	821	0.01%	761	0.01%	869	0.01%
TOTAL			**11,477,913**	**100%**	**10,215,128**	**100%**	**9,020,404**	**100%**	**7,537,758**	**100%**	**9,562,800**	**100%**

Appendix B: Summary of Carrier Reported Results (Adjusted) from 2010 to 2013 (Annualized)

Appendix B: Summary of Carrier Reported Results (Adjusted) from 2010 to 2013 (Annualized)

Type	Company Name	Utility Number	2010					2011					2012					2013				
			Installation Interval	Installation Commitment	CTR	OOS	AT	Installation Interval	Installation Commitment	CTR	OOS	AT	Installation Interval	Installation Commitment	CTR	OOS	AT	Installation Interval	Installation Commitment	CTR	OOS	AT
URF ILECS	AT&T California	U-1001-C	Exempt From Reporting		1.72%	50%	78%	Exempt From Reporting		1.50%	67%	79%	Exempt From Reporting		1.37%	71%	88%	Exempt From Reporting		1.82%	67%	88%
	Verizon California	U-1002-C			0.94%	76%	70%			1.19%	73%	60%			1.08%	72%	65%			1.00%	70%	69%
	SureWest Telephone & SureWest TeleVideo (dba SureWest Broadband)	U-1015-C U-6324-C			1.70%	85%	85%			2.58%	95%	91%			2.89%	93%	85%			1.95%	94%	88%
	Citizens Telecommunications Company of California, Inc	U-1024-C			0.70%	78%	81%			0.77%	82%	52%			0.80%	83%	76%			0.86%	91%	84%
	Frontier Communications of the South West	U-1026-C			1.02%	98%	89%			0.78%	91%	81%			0.92%	92%	76%			0.85%	93%	83%
URF CLECS	ACN Communication Services, Inc.	U-6342-C			--	--	--			--	--	--			--	--	--			0.79%	10%	63%
	Advanced TelCom	U-6083-C			0.59%	95%	97%			0.57%	91%	97%			0.94%	85%	83%			0.94%	85%	83%
	Astound Broadband	U-6184-C			2.73%	87%	47%			2.33%	87%	61%			2.06%	92%	70%			1.87%	88%	69%
	AT&T Communications	U-5002-C			1.43%	76%	88%			1.18%	77%	87%			1.13%	89%	72%			1.31%	99%	75%
	Charter Fiberlink CA-CCO, LLC	U-6878-C			2.54%	80%	89%			2.07%	88%	90%			1.80%	85%	85%			1.55%	93%	82%
	Cox California Telecom	U-5684-C			2.22%	94%	0%			1.82%	93%	86%			1.87%	93%	82%			1.86%	93%	86%
	Electric Lightwave	U-5377-C			1.65%	92%	98%			1.46%	84%	96%			1.46%	92%	89%			1.03%	81%	83%
	PAETEC Communications	U-6097-C			--	--	--			0.00%	86%	--			--	96%	71%			0.86%	95%	68%
	Sonic Telecom	U-7002-C			--	--	--			3.13%	38%	40%			1.80%	32%	45%			1.40%	64%	68%
	Telscape Communications	U-6589-C			4.10%	90%	--			6.05%	92%	--			3.85%	91%	83%			3.80%	92%	67%
	U.S. TelePacific Corp., Mpower Communications Corp. & Arrival Communications, Inc. d/b/a TelePacific Communications	U-5721-C U-5859-C U-5248-C			0.12%	55%	100%			0.17%	54%	86%			3.35%	61%	82%			0.10%	79%	69%
GRC ILECS	Calaveras Telephone	U-1004-C	0.94	100%	0.24%	100%	--	1.14	100%	0.25%	100%	--	--	--	0.33%	100%	--	1.19	100%	0.26%	100%	--
	Cal-Ore Telephone	U-1006-C	0.89	100%	1.69%	98%	--	1.53	99%	1.84%	98%	--	1.65	98%	1.65%	96%	--	2.29	97%	1.52%	93%	--
	Ducor Telephone	U-1007-C	0.07	100%	0.88%	99%	--	0.20	100%	0.71%	100%	--	0.16	100%	0.93%	100%	--	0.22	100%	0.82%	100%	--
	Foresthill Telephone	U-1009-C	1.00	99%	1.37%	94%	97%	0.94	95%	1.60%	95%	--	1.90	98%	1.48%	94%	--	1.75	100%	0.90%	96%	--
	Frontier Communication West Coast	U-1020-C	1.92	97%	0.57%	93%	89%	2.32	97%	0.64%	90%	86%	2.31	97%	0.73%	87%	76%	1.99	98%	0.56%	84%	84%
	Happy Valley Telephone	U-1010-C	2.18	99%	1.05%	97%	96%	2.46	99%	1.42%	98%	94%	2.90	99%	1.42%	97%	92%	2.42	100%	1.68%	100%	89%
	Hornitos Telephone	U-1011-C	2.32	100%	2.79%	95%	94%	4.70	100%	4.70%	100%	--	3.50	99%	3.87%	98%	89%	3.42	100%	2.25%	99%	88%
	Kerman Telephone	U-1012-C	1.04	99%	1.65%	95%	97%	0.86	99%	1.73%	88%	--	1.96	97%	1.65%	93%	--	2.65	99%	1.10%	96%	--
	Pinnacles Telephone	U-1013-C	1.00	100%	1.65%	86%	--	0.81	100%	1.11%	100%	--	1.23	100%	0.72%	100%	--	0.88	100%	0.76%	100%	--
	Ponderosa Telephone	U-1014-C	1.73	100%	1.13%	95%	--	1.72	99%	3.44%	96%	--	1.89	98%	0.47%	100%	--	1.43	100%	3.91%	98%	--
	Sierra Telephone	U-1016-C	0.42	100%	0.84%	99%	99%	0.41	100%	0.78%	100%	99%	1.08	100%	0.70%	100%	100%	0.85	100%	0.69%	100%	95%
	Siskiyou Telephone	U-1017-C	0.77	100%	0.40%	99%	--	0.87	100%	0.27%	99%	--	0.89	100%	0.38%	98%	--	0.82	100%	0.31%	96%	--
	Volcano Telephone	U-1019-C	2.06	100%	0.83%	95%	96%	1.60	100%	1.30%	100%	96%	1.66	100%	0.75%	100%	96%	1.87	100%	0.54%	95%	91%
	Winterhaven Telephone	U-1021-C	1.79	98%	3.37%	95%	94%	1.84	100%	2.71%	99%	91%	2.23	99%	2.45%	97%	89%	2.44	96%	2.77%	98%	88%

-- No Report Found Did not Meet Standard Met Standard

Appendix C: Comparison of AT&T and Verizon OOS Repair Unadjusted (Raw Data) and Adjusted (Reported G.O. 133-C) Results

Appendix C: Comparison of AT&T and Verizon OOS Repair Interval Unadjusted (Raw Data) and Adjusted (Reported G.O. 133-C) Results

AT&T California	2010				2011				2012				2013			
	Unadjusted (Raw Data)		Adjusted (Reported GO 133-C)		Unadjusted (Raw Data)		Adjusted (Reported GO 133-C)		Unadjusted (Raw Data)		Adjusted (Reported GO 133-C)		Unadjusted (Raw Data)		Adjusted (Reported GO 133-C)	
Total # of OOS Reports	**1,001,983**	**%**	**801,369**	**%**	**917,056**	**%**	**595,965**	**%**	**722,119**	**%**	**585,586**	**%**	**572,942**	**%**	**464,720**	**%**
24hrs (1 Day)	368,910	37%	401,282	50%	478,266	52%	399,050	67%	438,895	61%	410,288	70%	338,526	59%	312,653	67%
48hrs (2 Days)	591,002	59%			682,724	74%			577,080	80%			455,721	80%		
72hrs (3 Days)	730,513	73%			772,302	84%			652,431	90%			512,978	90%		
96hrs (4 Days)	832,875	83%			815,128	89%			683,471	95%			543,097	95%		

Verizon California	2010				2011				2012				2013			
	Unadjusted (Raw Data)		Adjusted (Reported GO 133-C)		Unadjusted (Raw Data)		Adjusted (Reported GO 133-C)		Unadjusted (Raw Data)		Adjusted (Reported GO 133-C)		Unadjusted (Raw Data)		Adjusted (Reported GO 133-C)	
Total # of OOS Reports	**255,651**	**%**	**200,165**	**%**	**193,390**	**%**	**157,152**	**%**	**134,934**	**%**	**122,980**	**%**	**110,070**	**%**	**99,492**	**%**
24hrs (1 Day)	158,362	62%	151,064	75%	115,826	60%	113,090	72%	89,667	66%	86,916	71%	72,002	65%	69,550	70%
48hrs (2 Days)	194,409	76%			145,507	75%			111,672	83%			91,682	83%		
72hrs (3 Days)	215,015	84%			160,917	83%			121,726	90%			101,533	92%		
96hrs (4 Days)	227,146	89%			168,863	87%			126,972	94%			104,459	95%		

	AT&T 4 YEAR TOTAL				Verizon 4 YEAR TOTAL			
	Unadjusted (Raw Data)		Adjusted (Reported GO 133-C)		Unadjusted (Raw Data)		Adjusted (Reported GO 133-C)	
Total # of OOS Reports	3,214,100	%	2,447,640	%	694,045	%	579,789	%
24hrs (1 Day)	1,624,597	51%	1,523,273	62%	435,857	63%	420,620	73%
48hrs (2 Days)	2,306,527	72%			543,270	78%		
72hrs (3 Days)	2,668,224	83%			599,191	86%		
90hrs (4 days)	2,874,571	89%			627,440	90%		

(End of Attachment B)