Decision **PROPOSED DECISION OF COMMISSIONER RANDOLPH**
(Mailed 10/30/2015)

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking Regarding the Applicability of the Commission's Right-of-Way Rules to Commercial Mobile Radio Service Carriers.	Rulemaking 14-05-001 (Filed May 1, 2014)

DECISION REGARDING THE APPLICABILITY OF THE COMMISSION'S RIGHT-OF-WAY RULES TO COMMERCIAL MOBILE RADIO SERVICE CARRIERS

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DECISION REGARDING THE APPLICABILITY OF THE COMMISSION'S RIGHT-OF-WAY RULES TO COMMERCIAL MOBILE RADIO SERVICE CARRIERS

1. Summary

In Decision 98-10-058, the Commission adopted the Right-of-Way Rules (ROW Rules) that provide competitive local exchange carriers (CLECs) and cable television (CATV) corporations with nondiscriminatory access to public utility infrastructure. Today's decision amends the ROW Rules to provide commercial mobile radio service (CMRS) carriers with nondiscriminatory access to public utility infrastructure, too. Such access will facilitate investment in wireless infrastructure, encourage widespread deployment of broadband wireless services, foster the provision of wireless service in previously unserved areas, and improve access to 911.

With one exception, the amended ROW Rules provide CMRS carriers with the same access to utility infrastructure as CLECs and CATV corporations. The one exception pertains to pole-attachment fees. Currently, the ROW Rules allow public utilities to charge each CLEC and CATV pole installation an annual attachment fee equal to 7.4% of a utility's cost-of-ownership for the host pole. The 7.4% fee is based on the assumption that a CLEC or CATV pole installation occupies one vertical foot of pole space.

CMRS pole installations typically occupy more pole space than CLEC and CATV pole installations. To reflect the greater use of pole space by CMRS installations, today's decision amends the ROW Rules to allow public utilities to charge an annual pole-attachment fee of 7.4% for each vertical foot of pole space occupied by CMRS installations. This amendment will result in CMRS carriers

paying approximately the same amount as CLECs and CATV corporations for each foot of occupied pole space.

To ensure that CMRS pole installations are safe, today's decision adopts the following amendments to General Order (GO) 95:

- Rules 21.0-D and 87.7-B are revised to prohibit antennas on guard arms except in specified circumstances.
- Rule 94.5-A is revised to require that signs alerting workers to the presence of radio-frequency radiation must comply with the marking requirements in Appendix H of GO 95.
- New Rule 94.6-C is added that prohibits antenna installations from obstructing pole climbing space or interfering with workers' fall-protection gear, except in specified circumstances. The new rule includes examples of antenna installations that typically do not interfere with fall-protection gear.
- Rule 94.9 is revised to require that protocols for de-energizing antennas, when necessary to protect the safety of workers, must comply with the protocols in Appendix H of GO 95.
- New Rule 94.11 is added that (i) requires a pole-overturning calculation before a pole-top antenna is attached to a pole, and (ii) specifies the safety factors for this calculation.
- New Rule 94.12 is added which states that only personnel and contractors who are properly qualified to work in proximity to supply lines shall have access to, and work on, wireless facilities installed above supply lines.

The costs to CMRS carriers and pole owners to implement the adopted amendments to the ROW Rules and GO 95 are unknown, but will be insignificant relative to their revenues.

This proceeding is closed.

2. Background

2.1. Federal Laws and Regulations

Title 47 of the United States Code, at Section 224(f) ("47 U.S.C. § 224(f)"), requires a utility[1] to provide "a cable television system or any telecommunications carrier with nondiscriminatory access to any pole, duct, conduit, or right-of-way owned or controlled by" the utility except in situations where a utility cannot provide access because of "insufficient capacity and for reasons of safety, reliability and generally applicable engineering principles."[2] Section 224(b)(1) requires the Federal Communications Commission ("FCC") to "regulate the rates, terms, and conditions for pole attachments to provide that such rates, terms, and conditions are just and reasonable, and shall adopt procedures… to hear and resolve complaints concerning such rates, terms, and conditions." The FCC's regulations for nondiscriminatory pole attachments[3] are set forth in Title 47 of the Code of Federal Regulations, at §§ 1.1401 - 1.1424, ("47 C.F.R. §§ 1.1401-1.1424"). Of relevance to today's decision, the FCC has determined that the benefits and protections of 47 U.S.C. § 224 apply to wireless carriers and wireless pole attachments.[4]

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[1] 47 U.S.C. § 224 (a)(1) defines the term "utility" as "any person who is a local exchange carrier or an electric, gas, water, steam, or other public utility, and who owns or controls poles, ducts, conduits, or rights-of-way used, in whole or in part, for any wire communications."

[2] See also 47 U.S.C. § 251(b)(4).

[3] Section 224(a)(4) defines the term "pole attachment" as "any attachment by a cable television system or provider of telecommunications service to a pole, duct, conduit, or right-of-way owned or controlled by a utility."

[4] *In the Matter of Implementation of Section 224 of the Act; A National Broadband Plan for Our Future*, WC Docket No. 07-245, GN Docket No. 09-51, *Report and Order and Order on Reconsideration*, 26 FCC Rcd. 5240, 52 Communications Reg. (P&F) 1027, FCC 11-50 (rel. Apr. 7, 2011) (hereafter "FCC 11-50") at ¶¶ 12, 77, and 153.

A State may preempt the FCC's regulation of pole attachments. Specifically, 47 U.S.C. § 224(c)(1) provides that "[n]othing in this section shall be construed to apply to, or to give the [FCC] jurisdiction with respect to rates, terms, and conditions, or access to poles, ducts, conduits, and rights-of-way… for pole attachments in any case where such matters are regulated by a State." In order for a State to establish its jurisdiction, the State must certify to the FCC that the State has enacted regulations that meet the following conditions set forth in 47 U.S.C. §§ 224(c)(2) and (3):

> (2) Each State which regulates the rates, terms, and conditions for pole attachment shall certify to the [FCC] that - -
>
> (A) it regulates such rates, terms, and conditions; and
>
> (B) in so regulating such rates, terms, and conditions, the State has the authority to consider and does consider the interests of the subscribers of the services offered via such attachment, as well as the interests of the consumers of the utility service.
>
> (3) For purposes of this subsection, a State shall not be considered to regulate the rates, terms, and conditions for pole attachments - -
>
> (A) unless the State has issued and made effective rules and regulations implementing the State's regulatory authority over
>
> pole attachments; and
>
> (B) with respect to any individual matter, unless the State takes final action on a complaint regarding such matter - -
>
> i. within 180 days after the complaint is filed with the State or
>
> ii. within the application period prescribed for such final action in such rules and regulations of the State, if the prescribed period does not extend beyond 360 days after the filing of such complaint.

A State's regulation of pole attachments does not have to conform to the FCC's rules. As set forth in 47 U.S.C. § 253(b), a state may adopt "on a

competitively neutral basis and consistent with Section 254, requirements necessary to preserve and advance universal service, protect the public safety and welfare, ensure the continued quality of telecommunications services, and safeguard the rights of consumers." In addition, § 253 recognizes the authority of State and local governments to manage public rights-of-way ("ROW") and to require just and reasonable compensation for the use of such ROW.

2.2. Decision 98-10-058 and the ROW Rules

Public Utilities Code Sections (Pub. Util. Code §§) 701, 767, and 1702 authorize the California Public Utilities Commission ("Commission") to regulate public utilities and to establish reasonable rates, terms, and conditions for joint use of utility poles, ducts, conduits, and ROW (together, "utility infrastructure").

In Decision (D.) 98-10-058, the Commission adopted rules to provide facilities-based competitive local exchange carriers ("CLECs")[5] and cable TV ("CATV") corporations with nondiscriminatory access to utility infrastructure that is owned or controlled by (1) large and midsized incumbent local exchange carriers; and (2) major investor-owned electric utilities consisting of Pacific Gas and Electric Company ("PG&E"), Southern California Edison Company ("SCE"), and San Diego Gas & Electric Company ("SDG&E"). D.98-10-058 also provided certification to the FCC that the Commission regulates the rates, terms, and conditions for nondiscriminatory access to utility infrastructure in conformance with 47 U.S.C. §§ 224(c)(2) and (3). As a result of these actions, the Commission has preempted FCC regulation of pole attachments in California.

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[5] D.98-10-058 uses the terms "competitive local carrier" and "CLC" to identify a competitive local exchange carrier.

The Commission's rules for nondiscriminatory access to utility infrastructure (referred to as the "ROW Rules") address the following matters:

1. Requests for information by CLECs and CATV corporations regarding the availability of a utility's infrastructure.
2. Requests to access a utility's infrastructure by CLECs and CATV corporations, including the contents of the requests; deadlines for utility responses and the contents of utility responses; timeframe for the utility to complete make-ready work; and the use of qualified personnel to perform make-ready work, rearrangements, attachments, and installations.
3. Protections for proprietary information.
4. Fees and contracts for access to utility infrastructure.
5. Reservations of infrastructure capacity for future use.
6. Access to customer premises.
7. Procedures for expedited resolution of disputes.
8. Safety standards for access to utility infrastructure, including pole attachments.

The ROW Rules are set forth in D.98-10-058, Appendix A, and are administered by the Commission in the form of preferred outcomes. Parties negotiating access agreements may depart from these preferred outcomes but, in resolving any access dispute, the Commission will consider how closely each party has conformed to these preferred outcomes.

Of importance to today's decision, D.98-10-058 excluded commercial mobile radio service ("CMRS") carriers[6] from the ROW Rules.[7] While the

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[6] CMRS carriers are "telephone corporations" and therefore public utilities subject to the Commission's jurisdiction under Pub. Util. Code §§ 216, 233, and 234. In 1993, 47 U.S.C. § 332(c)(3)(A) was amended to restrict state jurisdiction over CMRS carriers to "other terms and conditions" of CMRS service. These "other terms and conditions" include facility siting and public safety.

Commission recognized that CMRS carriers should not be subjected to unfair discrimination pursuant to 47 U.S.C. 224(f)(1), the focus of D.98-10-058 was on wireline local exchange service, not CMRS. The Commission also held that the rationale for the pole-attachment rates and access requirements adopted in D.98-10-058 with respect to wireline local exchange service may not apply to CMRS service. For example, the Commission noted that, unlike wireline local exchange carriers, CMRS carriers often seek to install antennas on the top of existing poles, which raises safety issues. The Commission concluded that it needed more information about the safety, reliability, and access needs of CMRS pole attachments in order to make an informed decision about the applicability of the ROW Rules to CMRS carriers. The Commission then deferred this matter to a later phase of the proceeding, but the proceeding was closed before the Commission took up this matter.

2.3. Scope of the Proceeding

The Commission issued Order Instituting Rulemaking (OIR) 14-05-001 in response to Petition (P.) 13-12-009 filed by AT&T Mobility.[8] As set forth in OIR 14-05-001 , the overall scope of this rulemaking proceeding is to consider whether and how the ROW Rules adopted by D.98-10-058 for nondiscriminatory access to public utility infrastructure should be amended to encompass CMRS carriers, with the goal of fostering affordable, reliable, and ubiquitous

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[7] CMRS includes cellular services, personal communications services, wide-area specialized mobile services, radio telephone services, and many other wireless services. (D.96-12-071, 70 CPUC 2d 61, 65.) In the common vernacular, the term "CMRS" is used interchangeably with the terms "wireless" and "cellular."

[8] "AT&T Mobility" refers to, collectively, AT&T Mobility Wireless Operations Holdings, Inc. (U-3021-C); New Cingular Wireless PCS, LLC (U-3060-C) d/b/a AT&T Mobility; and Santa Barbara Cellular Systems, Ltd. (U-3015-C).

mobile radio service. Appendix A of the OIR shows the ROW Rules with AT&T Mobility's proposed amendments.

The Commission determined in OIR 14-05-001 that any amendments to the ROW Rules adopted in this proceeding must (1) provide just and reasonable fees for CMRS pole attachments[9]; (2) protect the safety of workers and the public; and (3) preserve the reliability of co-located utility facilities. The Commission further determined that adopted amendments to the ROW Rules, if any, will apply prospectively in accordance with Rule 6.3(a) of the Commission's Rules of Practice and Procedure, and will not apply to the contractual rates, terms, and conditions for existing CMRS installations.

2.4. Procedural Background

The Commission approved OIR 14-05-001 at its meeting on May 1, 2014. A notice of availability of the OIR was served on (1) every CMRS carrier with a utility identification number issued by the Commission, and (2) the official service lists for Petition 13-12-009, Rulemaking 08-11-005, and the consolidated dockets of Rulemaking 95-04-043 and Investigation 95-04-044. Notice of OIR 14-05-001 appeared in the Commission's Daily Calendar on May 9, 2014.

In accordance with the OIR, three all-party meetings were held in May and June of 2014 to (1) identify areas of consensus regarding matters within the scope of this proceeding, (2) identify disputed issues, and (3) reach an agreement, if possible, on the schedule for this proceeding and appropriate procedures for resolving disputed issues. The parties did not reach a consensus on any issues.

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[9] Consistent with the OIR, today's decision uses the definition of "pole attachment" set forth in the ROW Rules adopted by D.98-10-058, Appendix A, Section II.

Combined prehearing conference statements and opening comments were filed on July 7, 2014, by the following parties:

- AT&T Mobility.
- The California Cable and Telecommunications Association "(CCTA").
- The Consumer Federation of California ("CFC").
- CTIA-The Wireless Association ("CTIA").
- The International Brotherhood of Electrical Workers Local Union 1245 ("IBEW 1245").
- PCIA - The Wireless Infrastructure Association and the HetNet Forum (together, "PCIA").
- The Commission's Safety and Enforcement Division ("SED").
- A coalition of investor owned electric utilities consisting of PG&E, SCE, and SDG&E (together, the "Electric IOUs").
- The Utility Reform Network ("TURN").
- The Wireless Communications Initiative of Joint Venture: Silicon Valley ("JVSV") and the California Wireless Association ("CWA").

Reply comments were filed on July 17, 2014, by AT&T Mobility, CCTA, CTIA, the Electric IOUs, and TURN.

A prehearing conference was held on August 6, 2014, and the *Assigned Commissioner's Scoping Memo and Ruling* was issued on August 27, 2014 (hereafter, "Scoping Memo"). In accordance with the schedule and directives in the Scoping Memo, AT&T Mobility, CCTA, and the Electric IOUs filed reports on October 21, 2014, containing specified information and diagrams regarding CMRS pole attachments. These reports were the subject of a two-day workshop held on November 4 and 5, 2014. Together, these reports and the workshop provided a common base of technical knowledge for evaluating and deciding issues within the scope of this rulemaking proceeding.

Following the November 2014 workshops, the assigned Administrative Law Judge (ALJ) issued several rulings that directed certain parties to file reports containing engineering calculations, cost data for pole attachments, and other technical information. Reports were filed on December 5, 2014, by AT&T Mobility, PG&E, SCE, SDG&E,[10] and jointly by CCTA and JVSV.

In parallel with these activities, SED conducted field inspections of CMRS sites, issued data requests to pole owners and CMRS carriers, and used the information obtained to assess the safety hazards associated with CMRS pole attachments. On December 5, 2014, SED filed a report containing its recommendations for mitigating these safety hazards.

Comments regarding SED's recommendations and other matters were filed on December 17-19, 2014, by AT&T Mobility, CCTA, CFC, CTIA, the Electric IOUs, JVSV, PCIA, SED, and TURN. Reply comments were filed on January 7, 2015, by AT&T Mobility, CTIA, the Electric IOUs, JVSV, PCIA, the Commission's Office of Ratepayer Advocates ("ORA"), SED, and TURN.

On January 14, 2015, the Electric IOUs filed a motion to convene additional workshops followed by an opportunity to request evidentiary hearings or alternative dispute resolution ("ADR"). The motion was granted by the assigned ALJ in two rulings issued on February 6 and 9, 2015.

Six days of workshops were held in February and March of 2015. On April 17, 2015, AT&T Mobility filed a workshop report on behalf of the workshop participants. A final round of comments was filed on April 17, 2015, by AT&T, CCTA, CTIA, the Electric IOUs, SED, and TURN. Reply comments were filed on April 24, 2015, by the same parties and PCIA.

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[10] SDG&E submitted a corrected report on December 9, 2014.

On April 29, 2015, the Electric IOUs filed a motion requesting ADR. The motion was denied in an ALJ ruling issued on May 20, 2015.

There were no requests for evidentiary hearings, and none were held.

3. Issues

Below, we first address the issue of whether the ROW Rules should be amended to encompass CMRS carriers. Next, we consider appropriate fees and charges for CMRS pole attachments. Finally, we consider new safety regulations for CMRS pole attachments.

3.1. Extending the ROW Rules to CMRS Carriers

3.1.1. Positions of the Parties

Most parties support amending the ROW Rules to encompass CMRS carriers, including AT&T Mobility, CCTA, CFC, CTIA, CWA, JVSV, and PCIA. Conversely, the Electric IOUs submit that the rapid growth of the CMRS industry shows there is no need to extend the ROW Rules to CMRS carriers. The Electric IOUs state that the real issue is not about facilitating further growth of the CMRS market, but about the safety and pricing of CMRS pole attachments. Therefore, if the Commission does extend the ROW Rules to CMRS carriers, the Electric IOUs urge the Commission to adopt the Electric IOUs' proposed safety regulations and pricing proposals for CMRS pole attachments.

In the same vein, SED states that the ROW Rules should not be extended to CMRS carriers unless SED's proposed safety regulations for CMRS pole attachments are adopted. TURN recommends that to protect ratepayers from subsidizing CMRS carriers, the Commission should set just and reasonable prices for CMRS pole attachments.

3.1.2. Discussion

We conclude that it is in the public interest to amend the ROW Rules adopted by D.98-10-058 to encompass CMRS carriers. This will enable CMRS carriers to obtain nondiscriminatory access to public utility poles, ducts, conduits, and rights-of-way. As we noted in OIR 14-05-001, CMRS carriers have a right to nondiscriminatory access under federal law and FCC regulations, except in situations where there is insufficient capacity, adverse effects on safety or reliability, and/or engineering constraints.[11] In D.98-10-058, the Commission asserted jurisdiction under federal law to regulate nondiscriminatory access.[12] By asserting such jurisdiction, the Commission assumed the obligation to promulgate rules for nondiscriminatory access that apply to CMRS carriers. Today's decision fulfills our obligation.

In addition to legal considerations, we find that providing CMRS carriers with nondiscriminatory access to public utility infrastructure will help achieve the following policy objectives established by Pub. Util. Code § 709:

- Provide affordable, high quality telecommunications services to all Californians. (§ 709(a).)
- Encourage the deployment of new technologies and the equitable provision of services in a way that efficiently meets consumer needs and encourages the ubiquitous availability of a wide choice of state-of-the art services. (§ 709(c).)
- Bridge the digital divide by encouraging expanded access to state-of-the art technologies for rural, inner-city, low-income, and disabled Californians. (§ 709(d).)
- Promote economic growth, job creation, and the substantial social benefits that result from the rapid implementation of

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[11] 47 U.S.C. § 224(f); 47 C.F.R. §§ 1.1401-1.1424; and FCC 11-50 at ¶¶ 12, 74-77, 136, 153.

[12] D.98-10-058, Conclusions of Law 1 - 3.

information and communications technologies by adequate investment in the necessary infrastructure. (§ 709(e).)

- Remove barriers to open and competitive markets and promote fair product and price competition in a way that encourages greater efficiency, lower prices, and more consumer choice. (§ 709(g).)

A related and equally important goal of the State of California is the widespread deployment of broadband services. Like electricity a century ago, broadband is a foundation for improved education, new industries, economic growth, job creation, global competitiveness, and a better way of life. The Commission has recognized the critical role of broadband communications in the lives of people and society at large.[13]

We disagree with the Electric IOUs' position that the rapid growth of the CMRS industry demonstrates there is no need to amend the ROW Rules to encompass CMRS carriers. As stated previously, federal law requires either the FCC or the States to regulate nondiscriminatory access to utility infrastructure by CMRS carriers.[14] We believe that such regulation is best accomplished at the State level in California so that we may tailor the regulatory framework to advance the public interest goals identified previously.

Unlike the Electric IOUs, we believe the rapid growth of the CMRS industry demonstrates that it is in the public interest to extend the ROW Rules to CMRS carriers. The record of this proceeding shows that use of wireless services

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[13] D.07-03-014 at 5. ("Advanced video and broadband systems are critical to social and economic development in our state.") There are several California programs to help close the digital divide. The California Advanced Services Fund increases geographic access to broadband. The California Emerging Technology Fund promotes access to broadband. And the California Lifeline program provides free or reduced cost cell phones to low-income households to enable access to wireless voice, text, and internet.

[14] 47 U.S.C. § 224(b), (c), and (f).

has grown tremendously in recent years with no signs of slowing. At the end of 2012, approximately one-third of Californians lived in wireless-only households, and about 70 percent of all 911 calls were made with a wireless device. Most Californians now use a wireless device as their primary Internet access tool.[15]

The growing demand for wireless services requires constant expansion and augmentation of wireless infrastructure. In an urban setting, the wireless infrastructure must be particularly dense in to order to provide the services demanded by the public, from basic voice communications to broadband. Oftentimes, the most efficient way to obtain the required density is to use existing public utility infrastructure, especially utility poles.[16] Providing CMRS carriers with nondiscriminatory access to utility infrastructure will facilitate their ability to meet California's expanding demand for essential wireless services.

Facilitating investment in wireless infrastructure also brings significant safety benefits by enhancing the public's ability to notify public-safety agencies of emergencies, and by enabling first responders to communicate with each other during emergencies. Nondiscriminatory access to utility infrastructure will help CMRS carriers to provide and maintain a robust wireless network for communicating life-saving information during emergencies.

We agree with the Electric IOUs, SED, and TURN that extending the ROW Rules to encompass CMRS carriers must be done in a way that provides just and reasonable fees for CMRS pole attachments, and protects the safety of workers and the public. We address these matters below.

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[15] PCIA Comments (July 7, 2014) at 5-7; and CTIA Reply Comments (July 17, 2014) at 2.

[16] PCIA Comments (July 7, 2014) at 5-7; and PCIA Reply Comments (Jan. 7, 2015) at 4.

3.2. Fees and Charges for CMRS Attachments

3.2.1. Background

In D.98-10-058, the Commission directed public utilities to negotiate with CLECs and CATV corporations regarding the fees and charges for access to utility infrastructure. If parties cannot agree, D.98-10-058 authorized parties to bring their dispute to the Commission where the Commission would apply a default pricing rule consisting of three components.

The first component is a "make-ready charge" that consists of the actual costs incurred by a utility to make its support structures ready for attachments. The make-ready charge may include the utility's costs for responding to requests for space availability; preparing maps, drawings, and engineering studies for proposed attachments; rearranging existing facilities and attachments to make room for new attachments; and installing new poles, ducts, and conduits if needed to accommodate new attachments. The make-ready charge is authorized for CATV attachments pursuant to Pub. Util. Code § 767.5(c)(1). In D.98-10-058, the Commission adopted the make-ready charge for CLEC attachments.

The second component is an annual fee for use of support structures other than poles (e.g., conduits). This fee is equal to the percentage of the support structure that is used by the attachment multiplied by the utility's annual cost-of-ownership for the support structure. The percentage is determined by dividing the volume or capacity of the support structure that is rendered unusable by the attachment by the total usable volume or capacity of the structure. This fee is authorized for CATV attachments by Pub. Util. Code § 767.5(c)(2)(B). In D.98-10-058, the Commission adopted the same fee for CLECs.

The third component is an annual fee for pole attachments. This fee is equal to the greater of $2.50 or 7.4% of the utility's annual cost-of-ownership for the pole and supporting anchor. As a practical matter, the 7.4% fee is always greater than $2.50. This structure fee is authorized for CATV pole attachments by Pub. Util. Code § 767.5(c)(2)(A). In D.98-10-058, the Commission adopted the same fee structure for CLEC pole attachments. The Commission also held in D.98-10-058 that a utility may charge a CLEC pole attachment more than the 7.4% annual fee if the utility can demonstrate that the CLEC attachment occupies more pole space, or otherwise encumbers the pole to a greater degree, than typical CATV pole attachments.

The annual cost-of-ownership used to calculate the 7.4% pole-attachment fee includes all of the utility's pole-related costs. Such costs include pole-related administrative and general costs; operations and maintenance costs; straight-line depreciation; cost of capital; franchise fees and taxes; and offsetting credits for contributed capital and deferred income taxes. The annual cost-of-ownership is an average cost for poles; it is not pole specific. Also, because the annual cost-of-ownership can change from year to year, the annual 7.4% pole-attachment fee may likewise change from year to year.

The 7.4% pole-attachment fee is based on a hypothetical 37.5-foot utility pole, with six feet underground and 31.5 feet above ground. The above-ground portion of the pole is divided into "common" space and "usable" space. The common space is the first 18 feet above ground level where cables and wires are not allowed pursuant to General Order 95 (with certain exceptions not relevant here). The usable space is the top 13.5 feet of the pole where communication

wires, CATV cables, and electric power lines are attached.[17] The 7.4% annual fee is based on the assumption that a CLEC or CATV pole attachment occupies one foot of the 13.5 feet of total usable space (i.e., 7.4% = 1 ÷ 13.5).

For joint-use poles, the top portion of the usable space is reserved for electric utility facilities, and the lower portion for communication and CATV facilities. Attachments in the usable space must be separated from each other by the mandatory safety clearances specified in General Order 95 ("GO 95").

3.2.2. Positions of the Parties

With one exception, the parties agree that the fees and charges adopted by D.98-10-058 for access to utility support structures should apply to CMRS carriers. The one exception concerns the 7.4% annual pole-attachment fee. The parties' positions coalesced around two proposals for applying the 7.4% fee to CMRS pole attachments. One proposal was advanced by AT&T Mobility, and the second by the Electric IOUs and TURN.

AT&T Mobility's proposal would apply, the 7.4% fee to each foot of usable pole space that is physically occupied by a CMRS attachment. For example, if a CMRS carrier attaches a 4-foot panel antenna to a pole using a 2-foot attachment bracket, the annual fee would be 14.8% (7.4% x 2 feet).

Importantly, under AT&T Mobility's proposal, the 7.4% annual fee would apply only to CMRS attachments in a pole's usable space. The 7.4% fee would not apply to CMRS attachments in the common space of a utility pole, mandatory safety clearances between CMRS attachments and other pole attachments, or to CMRS risers and conduits attached to a pole.

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[17] Today's decision uses the terms "cable," "wire," and "wireline" synonymously.

AT&T Mobility believes its proposal is nondiscriminatory because it applies to CMRS pole attachments the same 7.4% annual fee that is mandated by Pub. Util. Code § 767.5(c)(2)(A) for CATV pole attachments and adopted by D.98-10-058 for CLEC pole attachments. The only new feature of AT&T Mobility's proposal is that if a CMRS attachment occupies more than 1 foot of usable pole space, the 7.4% fee would apply to each additional foot of occupied usable space.

AT&T Mobility's proposal is supported by CCTA, CTIA, JVSV, and PCIA.

The Electric IOUs and TURN submitted separate proposals for applying the 7.4% fee to CMRS pole attachments. Because their proposals are similar, the two proposals will be treated as a single proposal by today's decision (hereafter, "the Electric IOU/TURN proposal"). The major features of the proposal are:

- For CMRS antennas installed in a pole's usable space below power lines, the 7.4% attachment fee would apply to each vertical foot of the antenna. For example, assuming a 4-foot panel antenna is attached to a pole with a 2-foot bracket, the total fee would be 29.6% (7.4% x 4 feet). In contrast, the total fee under AT&T Mobility's proposal would be 14.8% for the 2-foot attachment bracket.
- For CMRS antennas installed in a pole's usable space below power lines, the 7.4% attachment fee would apply to the pole space that is rendered unusable for other attachments by an antenna's safety clearances. For example, if the safety clearances above and below an antenna render a total of two feet of pole space unusable for other attachments, a fee of 14.8% would apply (7.4% x 2 feet), in addition to the fee that would apply to the antenna itself. In contrast, AT&T Mobility's proposal would apply no fee to an antenna's safety clearances.
- For multiple CMRS antennas installed below power lines at the same horizontal level, the 7.4% attachment fee would apply to each antenna. For example, assuming two 4-foot panel

antennas are attached to a pole at the same horizontal level, the total fee would be 59.2% (7.4% x 8 feet). In contrast, AT&T Mobility's proposal would apply the 7.4% fee only once for each foot of occupied pole space, regardless of the number of antennas. In this example, AT&T's proposal would result in a total fee of 14.8% (assuming 2-foot attachment brackets).

- For pole-top antennas installed above power lines, the 7.4% fee would apply to the greater of (1) the vertical size of the antenna, or (2) the mandatory safety clearance between the antenna and the power lines. For example, assuming a 4-foot panel antenna is installed above power lines, and the mandatory safety clearance is 6 feet, the total fee would be 44.4% (7.4% x 6 feet). In contrast, AT&T Mobility's proposal would result in a fee of 14.8% (assuming a 2-foot attachment bracket).
- For CMRS equipment installed in a pole's common space (i.e., the first 18 feet of pole space above ground level), the 7.4% fee would apply to the vertical size of the equipment. For example, for a 3-foot high equipment cabinet, the total fee would be 22.2% (7.4% x 3 feet). In contrast, AT&T Mobility's proposal would charge nothing for equipment in the common space.
- The 7.4% pole-attachment fee would not apply to electric meters, risers, and conduits associated with CMRS attachments. AT&T Mobility's proposal is the same.
- There is no per-pole cap on the 7.4% fee. Total attachment fees for a pole could exceed 100% of the pole's cost-of-ownership. AT&T Mobility's proposal does not address this matter.
- There is no adjustment to the 7.4% fee for poles longer than 37.5 feet (and thus more than 13.5 feet of usable space). AT&T Mobility's proposal does not address this matter.

The Electric IOUs and TURN believe their proposal is reasonable because it applies the 7.4% fee based on the pole space that a CMRS installation renders unusable for other attachments. At the same time, their proposal prevents utility

ratepayers from subsidizing CMRS pole attachments by setting pole-attachment fees that fully recover the pole owner's costs for such attachments.

The Electric IOUs and TURN submit that it is reasonable to charge a pole-top antenna for 4 to 10 feet of safety clearances, depending on the voltage of the power lines below the antenna, even though the amount of pole space that is physically occupied by the pole-top antenna is limited to 1 to 2 feet (in most cases) for the attachment bracket. The Electric IOUs and TURN assert that pole-top antennas impose a disproportionate load on the pole and should thus pay more. The Electric IOUs also claim that when a pole-top antenna is installed on the pole, the eventual replacement pole will need to be taller and hence more expensive in order to accommodate the pole-top antenna. The Electric IOUs reason that because pole-top antennas will require more expensive poles over the long run, the pole-attachment fee should be correspondingly higher.

The Electric IOUs further claim that they must inspect and maintain pole-top attachments pursuant to GO 165. If CMRS carriers do not pay their fair share of inspection and maintenance costs, then electric utility ratepayers will be forced to subsidize CMRS carriers.

The Electric IOU/TURN proposal is supported by CFC and ORA. CFC posits that CMRS pole attachments are different than CLEC and CATV attachments because the former use more pole space, add more weight and wind load, and affect safety. Because of these differences, CFC opines that a 7.4% per-foot fee should apply to the entirety of a CMRS pole installation.

The Electric IOU/TURN proposal is opposed by AT&T Mobility, CCTA, CTIA, JVSV, and PCIA. The Opponents urge the Commission to reject the Electric IOU/TURN proposal for the following reasons. First, Pub. Util. Code § 767.5(c)(2)(A) establishes an annual pole-attachment fee of 7.4% "per pole" for

CATV attachments,[18] and D.98-10-058 adopted the same 7.4% "per pole" fee for CLEC attachments. The Opponents declare that the Electric IOU/TURN proposal is discriminatory because it would apply the 7.4% fee on a "per foot" basis to CMRS attachments, which would result in a much higher annual fee than the 7.4% "per pole" fee for CLEC and CATV attachments.

Second, the Opponents claim the Electric IOU/TURN proposal to apply the 7.4% fee to CMRS attachments in the common space is contrary to Pub. Util. Code § 767.5(c)(2)(A) and D.98-10-058, which limited the 7.4% fee to CLEC and CATV attachments in the usable space. The FCC's rules likewise limit pole-attachment fees to the usable space.[19]

Third, the Opponents argue that applying the 7.4% fee to CMRS attachments in a pole's common space is discriminatory because there is no fee for CLEC and CATV attachments in the common space. It is also unnecessary and unreasonable to apply the 7.4% fee to attachments in the common space because the entire cost-of-ownership for a pole is allocated to the pole's usable space and recovered through the 7.4% fee applied to attachments in the usable space. The Opponents claim that pole owners would receive double recovery of their cost-of-ownership if they were allowed to charge the 7.4% fee on attachments in both usable space <u>and</u> the common space.

Fourth, the Opponents contend that the Electric IOU/TURN proposal is discriminatory because it would apply the 7.4% fee to the GO 95 safety clearances associated with CMRS pole attachments but not CLEC and CATV

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[18] Pub. Util. Code § 767.5(c)(2)(A) states: "For **<u>each pole</u>** and supporting anchor actually used by the cable television corporation…the annual fee shall be [$2.50] or 7.4 percent of the public utility's annual cost of ownership for the pole and supporting anchor." (Emphasis added.)

[19] 47 C.F.R. § 1.1409(c).

pole attachments. The Opponents state that the current 7.4% "per pole" fee for CLEC and CATV attachments is based on the assumed use of 1 foot of usable space, even though GO 95 mandates a total of 2 feet of safety clearances for CLEC and CATV wireline attachments (i.e., 1 foot of safety clearance above the wireline attachment and 1 foot below).[20]

The Opponents claim that applying the 7.4% fee to safety clearances would be especially discriminatory with respect to pole-top antennas, which have safety clearances of 4 to 10 feet from power lines, depending on the voltage of the power lines. The Opponents state that the only pole space occupied by a pole-top antenna is for the attachment bracket, which is usually 1 to 2 feet.

Fifth, the Opponents argue that the Electric IOU/TURN proposal would cause CMRS carriers to pay pole-attachment fees that are manifestly unreasonable, as shown in the following table:

The Electric IOUs and TURN's Annual Fee for CMRS Pole Attachments		
	One Pole-Top Antenna Chargeable Space	**One Mid-Pole Antenna Chargeable Space**
Antenna Sizes	2 – 4 feet	2 – 4 feet
Safety Clearances	4 – 10 feet	2 feet
Larger of Antenna Size or Safety Clearance	4 – 10 feet	n/a
Attachments in Common Space	2 – 6 feet	2 – 6 feet
Total Chargeable Space	6 – 16 feet	6 – 12 feet
Annual Fee at 7.4% per Foot	44.4% - 118.4%	44.4% - 88.8%

[20] The minimum clearance between communication conductors is 12 inches pursuant to GO 95, Rule 38, Table 2, Case 8.

The Opponents state that it is unreasonable to charge CMRS pole installations an annual fee in the range of 44.4% to 118.4% of a pole's annual cost-of-ownership given that the amount of usable pole space physically occupied by CMRS attachments is 1 to 2 feet for the antenna attachment bracket. Further, a pole-attachment fee in the range of 44.4% to 118.4% for CMRS attachments, together with the pole-attachment fees paid by CLEC and CATV attachers, would in many cases exceed 100% of the pole owner's annual cost-of-ownership for the pole and thereby provide an unreasonable subsidy to pole owners.

Finally, the Opponents claim the Electric IOU/TURN proposal is contrary to the federal requirement that the fee for wireless attachments be no greater than the maximum reasonable fee for other telecommunications pole attachments.[21] The FCC has determined that federal laws and its own regulations "do not allow pole access fees to be levied against wireless carriers in addition to the statutory pole rental rate, which is based on the space occupied by the attachment and the number of attaching entities on the pole, together with reasonable make-ready fees.[22]"

3.2.3. Discussion

The issue before us is the charges and fees that CMRS carriers should pay to access public utility infrastructure. The principle of nondiscriminatory access embodied in the ROW Rules requires that CMRS carriers pay the same charges and fees as CLECs and CATV corporations, except in situations where there is a significant difference in CMRS facilities that justifies different charges and fees.[23]

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[21] FCC 11-50, at ¶ 153.

[22] FCC Public Notice, DA 04-4046, 19 FCC Rcd. 24930 (rel. Dec. 23, 2004).

[23] D.98-10-058, at 20.

In D.98-10-058, the Commission determined that public utilities, CLECs, and CATV corporations should have flexibility to negotiate the terms and conditions for access to public utility infrastructure. If an agreement cannot be reached, D.98-10-058 adopted the following "default" charges and fees[24]:

1. A one-time make-ready charge for the actual costs incurred by the public utility to provide an attacher with access to the utility's infrastructure.
2. An annual fee for the use of support structures other than poles equal to the utility's annual cost-of-ownership for the support structure multiplied by the percentage of the structure's volume or capacity that is rendered unusable by the attacher.
3. An annual fee for the use of a utility pole equal to the greater of $2.50 or 7.4% of the utility's annual cost-of-ownership for the pole.

We agree with the parties that the charges and fees in Items 1 and 2, above, should apply to CMRS attachments. As TURN notes, the make-ready charge in Item 1 is reasonable because it consists of the actual costs incurred by the utility to make its infrastructure available to the attacher. The annual recurring fee for use of support structures other than poles in Item 2, above, is reasonable because it allocates the cost-of-ownership for a support structure to attachers based on their proportionate use of the structure.[25]

We find that the 7.4% pole-attachment fee in Item 3, above, should apply differently to CMRS pole attachments compared to CLEC and CATV pole attachments. The existing 7.4% fee is a "per-pole" fee. Each CLEC and CATV pole attachment is charged an annual fee equal to 7.4% of the pole's cost-of-ownership. Crucially, this fee structure is based on the Commission's finding in D.98-10-058 that CLEC and CATV pole attachments normally occupy 1 foot of

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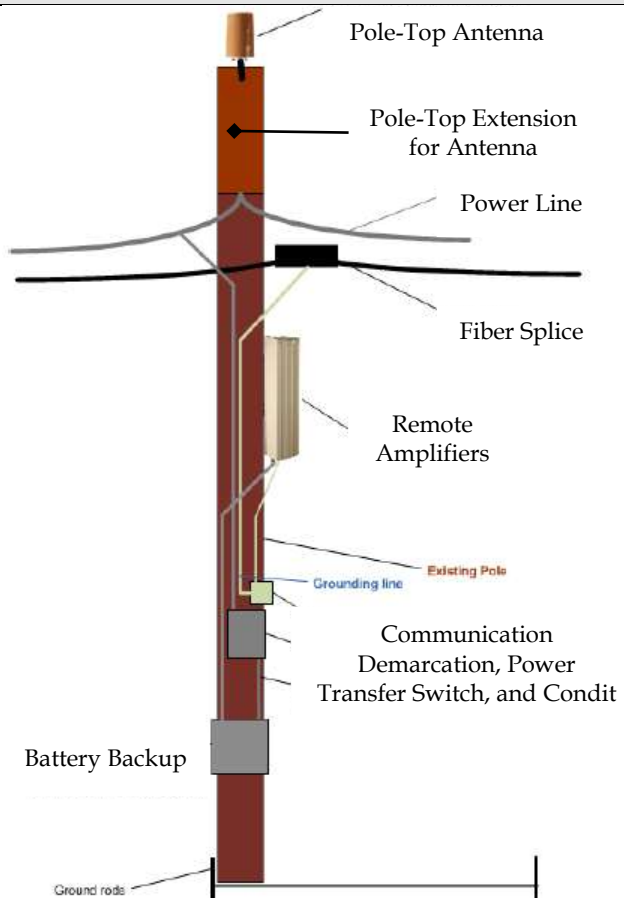
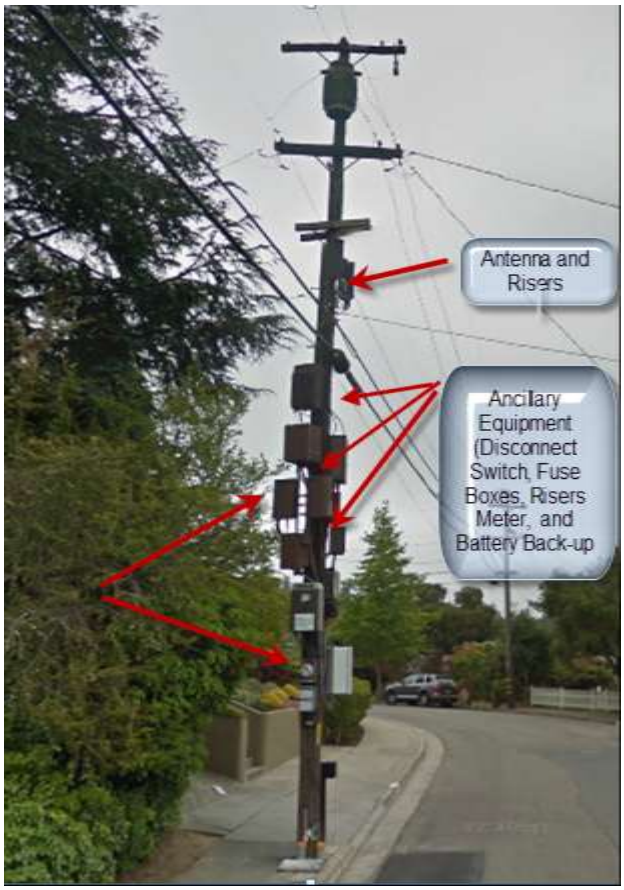
[24] D.98-10-058, Appendix A, Section XI.B.

[25] TURN Comments (Dec. 19, 2014), at 8.

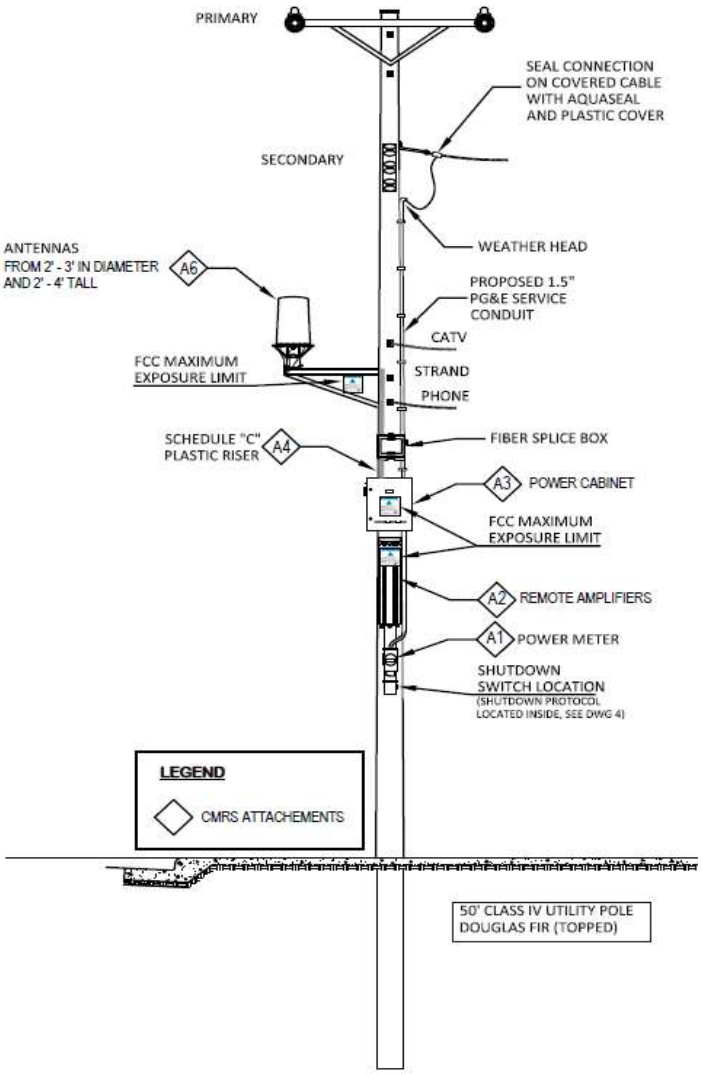
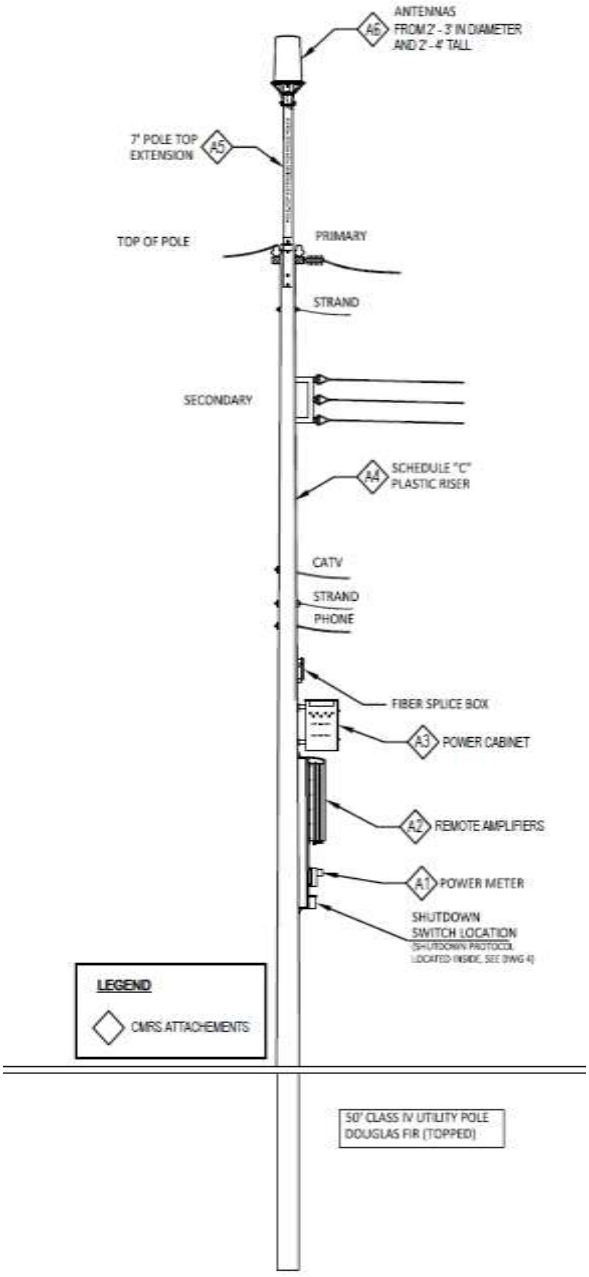
pole space out of 13.5 feet of usable pole space (i.e., 7.4% = 1 ÷ 13.5).[26] The record of the instant proceeding shows that the vast majority of CLEC and CATV pole attachments continue to occupy 1 foot of pole space.[27]

In contrast, most CMRS installations consist of multiple attachments that together occupy several feet of pole space, as shown in the following diagrams:

Figure 1	**Figure 2**
Pole-Top Antenna Installation	**Mid-Pole Antenna Installation**
	
Source: AT&T Mobility Informational Report (October 21, 2014) at 9.	**Source:** Electric IOUs Informational Report (October 21, 2014) at 27.

[26] D.98-10-058, at 55.

[27] AT&T Mobility Comments (July 7, 2014), attached Declaration of Dr. Kent A. Currie on Behalf of AT&T Mobility, at page 4, Paragraph 16.

Figure 3	Figure 4
Mid-Pole Antenna Installation	**Pole-Top Antenna Installation**
	
Note: Figure 3 mistakenly shows phone and CATV cables attached to the pole in the same horizontal plane as the antenna. GO 95, Rule 94.4, requires up to 24 inches of vertical separation, depending on circumstances, between an antenna and communication cables attached to the same pole.	
Source: AT&T Mobility Informational Report (October 21, 2014), at 2 – 4.	

As shown in Figures 1 - 4, above, a typical CMRS pole installation includes an antenna, shut-off switch, power meter, battery backup, radio amplifier, power cabinet, and risers for communication and power cables. The CMRS installation is usually connected to a separately attached communication cable for backhaul.

The various pole attachments that comprise a CMRS installation can collectively occupy 6 to 12 feet of pole space, depending on the types, number, and sizes of the attachments.[28] The mandatory safety clearances required by GO 95 for antennas can occupy additional pole space, depending on where an antenna is installed on a pole. Altogether, a CMRS installation can occupy more than 12 feet of pole space, versus only 1 foot of pole space for the vast majority of CLEC and CATV pole attachments.

We conclude that in order to establish nondiscriminatory pricing for CLEC, CATV, and CMRS pole attachments as contemplated by the ROW Rules, the 7.4% pole-attachment fee adopted by D.98-10-058 should apply to each foot of vertical pole space occupied by a CMRS installation, including safety clearances, but with several important exceptions described below. We recognize that the 7.4% pole-attachment fee adopted by D.98-10-058 is a "per-pole" fee and not a "per-foot" fee. The 7.4% "per-pole" fee is statutorily mandated for CATV pole attachments pursuant to Pub. Util. Code § 767.5(c)(2). In D.98-10-058, the Commission used its discretion to apply the 7.4% per-pole fee to CLEC pole attachments. Applying the same 7.4% per-pole fee to both CATV

[28] AT&T Mobility Informational Report (Oct. 21, 2014) at 1 (listing the components of a CMRS installation) and 7 (table listing the physical dimensions of components).

and CLEC pole attachments made sense because both types of attachments are similar and typically occupy 1 foot of pole space.[29]

It does not make sense for CMRS attachments. Under a per-pole pricing scheme, a CMRS installation that uses 6 to 12 feet of pole space would pay the same 7.4% per-pole fee as a CLEC or CATV attachment that uses only 1 foot of pole space. We conclude that it is unreasonable for CMRS installations that typically use far more pole space than CLEC and CATV attachments to pay the same 7.4% per-pole attachment fee as CLEC and CATV attachments.[30]

We conclude that applying the 7.4% fee on a per-foot basis to CMRS pole attachments, while the existing 7.4% per-pole fee remains in effect for CLEC and CATV attachments, is reasonable because each type of attachment will be charged an annual 7.4% fee that is proportionate to the amount of pole space occupied an attachment. For instance, a CMRS installation that occupies 6 feet of pole space will be charged a fee equal to 44.4% of the pole's annual cost of ownership (7.4% x 6 feet), and CLEC and CATV attachments that typically occupy 1 foot of pole space will continue to be charged a fee of 7.4% per pole.

Applying the 7.4% fee on a per-foot basis to CMRS pole attachments does not violate any federal laws or regulations.[31] As contemplated by federal law and FCC regulations, the adopted 7.4% per-foot fee for CMRS installations (as limited by today's decision) is based on the space occupied by the attachment

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[29] D.98-10-058, at 52–57.

[30] The space on utility poles is analogous to hotel rooms. A guest who occupies 6 hotel rooms should pay more than a guest who occupies 1 room. Analogously, a CMRS pole installation that uses 6 feet of pole space should a pay a higher pole-attachment fee than a CLEC or CATV attachment that uses 1 foot.

[31] The FCC has acknowledged that wireless pole attachments may require more than one foot of usable space on a pole, and that a higher pole-attachment fee may be appropriate in these situations. (FCC 11-50, at ¶ 153.)

and the number of attaching entities on the pole, together with reasonable make-ready fees.[32] As further required by 47 U.S.C. § 253(a), nothing in today's decision has "the effect of prohibiting the ability of any entity to provide any interstate or intrastate telecommunications service."

To the extent today's decision deviates from FCC-adopted charges and fees for pole attachments, we are not bound by such requirements. Pursuant to 47 U.S.C. § 224(c)(1), the FCC does not have "jurisdiction with respect to rates, terms, and conditions, or access to poles, ducts, conduits, and rights-of-way… for pole attachments in any case where such matters are regulated by a State." We have regulated such matters with respect to CLEC and CATV pole attachments since our adoption of the ROW Rules in D.98-10-058.[33] Today's decision extends our authority under 47 U.S.C. § 224(c)(1) to include CMRS pole attachments. Such authority includes discretion to set fees for CMRS pole attachments that reflect their disproportionate use of pole space compared to CLEC and CATV pole attachments.

We agree with the Electric IOUs and TURN that the charges and fees adopted by today's decision for access to utility infrastructure should not subsidize CMRS pole attachments. Today's decision achieves that objective by adopting charges and fees derived from D.98-10-058 wherein the Commission held that the charges and fees approved by that decision "reasonably compensate the utility for the provision of access to its poles and support

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[32] FCC Public Notice, DA 04-4046, 19 FCC Rcd. 24930 (rel. Dec. 23, 2004).

[33] In D.98-10-058, the Commission certified to the FCC that the Commission regulates the rate, terms, and conditions for access to poles, ducts, conduits, and ROW in conformance with 47 U.S.C. 224(c)(2) and (3). (D.98-10-058, at 9.)

structures.[34]" On the other hand, we realize that applying the 7.4% fee on a per-foot basis to CMRS pole attachments can produce unfair results in some situations. To prevent unfair results, today's decision, *infra*, adopts several limits on the application of the 7.4% per-foot fee to CMRS pole attachments.

3.2.3.1 Pole Space Subject to the 7.4% Fee

We previously determined that the 7.4% pole-attachment fee should apply to each vertical foot of pole space occupied by a CMRS attachment. Here, we provide guidance for determining the amount of occupied pole space.

We conclude that the 7.4% per-foot fee should apply to the pole space that a CMRS attachment renders unusable for non-CMRS attachments. This is conceptually similar to how the attachment fee is determined under the ROW Rules for utility support structures other than poles.

The pole space that a CMRS attachment renders unusable for non-CMRS attachments will normally consist of the space that is physically occupied by the CMRS attachment, plus any pole space that cannot be used by communication or supply conductors[35] due to the installation of the CMRS attachment. Figure 5, below, provides an example of the pole space that a CMRS attachment renders unusable for non-CMRS attachments:

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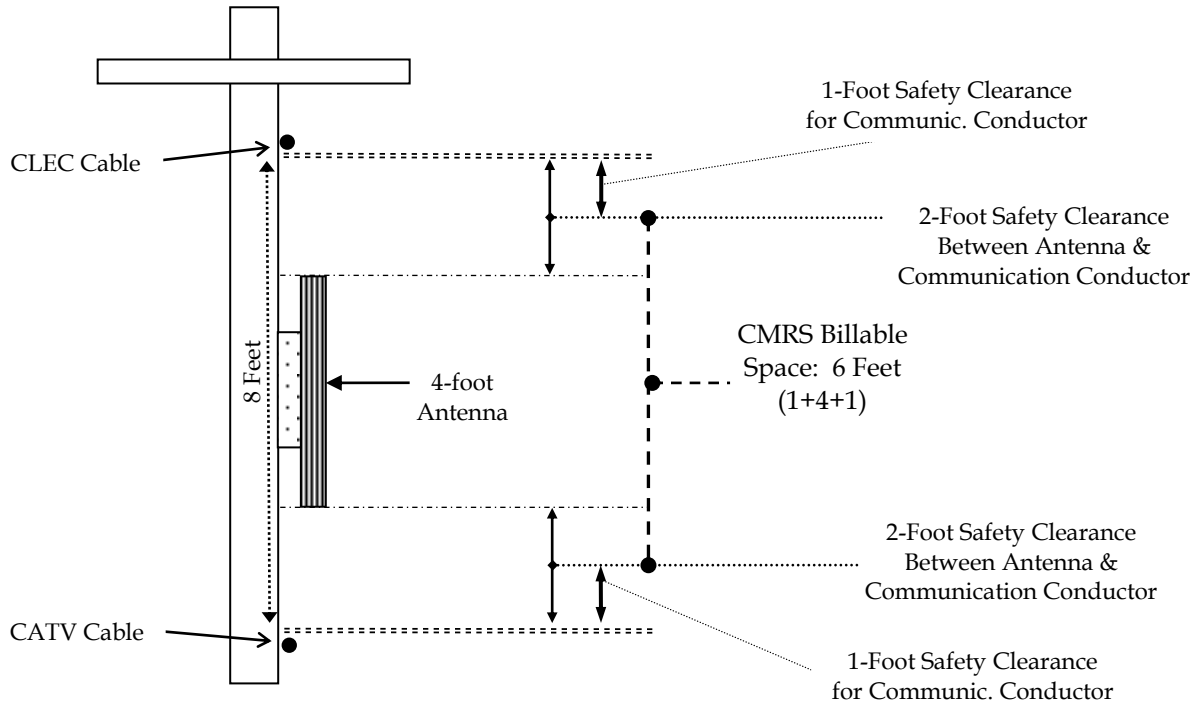
[34] D.98-10-058, Conclusion of Law 33.

[35] Today's decision uses the terms "supply conductors," "supply lines," and "power lines" synonymously.

Figure 5: Pole Space Occupied by CMRS Antenna

Total Pole Space Occupied by 4-foot Panel Antenna = 6 Feet

(Drawing Not to Scale)



GO 95 Safety Clearances:

- Between CMRS antenna and CLEC/CATV communication conductor: 2 feet (Rule 38, Table 2, Case 21, Column C; Rule 94.4-B and Rule 94.4-C)
- Between CLEC and CATV communication conductors attached to the pole: 1 foot (Rule 84.4-C(2), Rule 87.4, and Rule 92.1-B)

In Figure 5, above, a 4-foot panel antenna is attached to a pole with a 2-foot bracket. The total pole space used by the antenna and its associated safety clearances is 8 feet, consisting of 4 feet for the antenna itself, 2 feet for the safety clearance above the antenna, and 2 feet for the safety clearance below the antenna. No communication conductors or supply conductors can be placed in this 8-feet of pole space. Figure 5 also shows that a communication conductor (e.g., a CLEC cable or CATV cable) can be placed at the top edge of the pole

space used by the CMRS antenna and at the bottom edge. Each communication conductor has a 1-foot safety clearance that extends into the pole space used by the safety clearances for the CMRS antenna.

The net amount of pole space that is rendered unusable by the CMRS antenna for non-CMRS attachments is 6 feet, calculated as follow:

Net Pole Space Occupied by CMRS Antenna	Feet Used
4-Foot Panel Antenna	4 feet
Safety Clearance: 2 Feet Above Antenna	2 feet
Safety Clearance: 2 Feet Below Antenna	2 feet
Subtotal: Pole Space Used by Antenna	**8 feet**
Less: 1 Foot Safety Clearance for Upper Comm. Conductor	-1 foot
Less: 1 Foot Safety Clearance for Lower Comm. Conductor	-1 foot
= Net Pole Space Rendered Unusable for non-CMRS Attachments	**= 6 feet**

In the above example, the annual pole-attachment fee applicable to the CMRS antenna pursuant to today's decision is 44.4% (6 feet x 7.4%) of the pole owner's annual cost-of-ownership for the pole. Appendix D of today's decision contains additional examples of the pole space occupied by CMRS attachments that is subject to the 7.4% per-foot fee.

Today's decision applies the 7.4% per-foot fee to the pole space that is dedicated exclusively to a CMRS attachment. This is a reasonable because it requires CMRS carriers to pay for the pole space that their attachments render unusable for non-CMRS attachments; and it ensures that pole owners (and their customers) do not bear the cost-of-ownership for pole space that is dedicated solely to CMRS attachments.

AT&T Mobility and other Opponents argue unpersuasively that it is discriminatory to apply the 7.4% fee to the pole space rendered unusable by the

safety clearances associated with CMRS attachments when the 7.4% fee is not imposed on the safety clearances associated with CLEC and CATV attachments. In particular, because GO 95 mandates a 1-foot safety clearance between communication conductors, every communication conductor uses 2 feet of pole space for safety clearances, i.e., 1 foot above the conductor and 1 foot below the conductor. Yet despite using 2 feet of pole space, the ROW Rules levy the 7.4% fee only once per pole for a CLEC or CATV installation.

The flaw in the Opponents' argument is their miscalculation of the amount of pole spaced used by the 1-foot safety clearance for communication conductors. In order to maintain a safety clearance of 1 foot above and 1 foot below a communication conductor as required by GO 95, such conductors must be attached to a pole at least 1 foot apart. For a 5-foot section of vertical pole space, it would be possible to attach 5 communication conductors and maintain 1 foot of safety clearance above each conductor and 1 foot below each conductor.[36] As a result, a typical CLEC or CATV pole attachment uses only 1 foot of pole space, including safety clearances.

In sum, the existing 7.4% per-pole fee applies to CLEC and CATV attachments that typically use 1 foot of vertical pole space, including safety clearances. To ensure nondiscriminatory treatment, today's decision applies the 7.4% fee to the safety clearances associated with CMRS attachments.

3.2.3.2 Rounding and Minimum Fee

For administrative ease, the amount of pole space occupied by a CMRS attachment shall be rounded to the nearest whole foot for the purpose of

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[36] In addition to safety clearances, a communication conductor uses 2 to 3 inches of pole space for attachment hardware. (Electric IOUs Reply Comments (April 24, 2015) at 3.)

applying the 7.4% per-foot fee. Each attachment shall be subject to a minimum annual fee of 7.4% of the utility's annual cost-of-ownership for the pole.

3.2.3.3 Pole-Top Antennas

We decline to adopt the Electric IOUs' proposal to apply the 7.4% per-foot fee to the greater of (1) the vertical size of the pole-top antenna, or (2) the GO 95 safety clearance between the antenna and the power lines below the antenna. Because safety clearances for pole-top antennas range from 4 feet to 10 feet, depending on the voltage of the power lines below the antenna, this proposal would result in an attachment fee for pole-top antennas in the range of 29.4% to 74.0% (plus additional attachment fees for other CMRS equipment on the same pole). Such a large fee is reasonable only if pole-top antennas use 29.4% to 74.0% of a pole's total space and/or load capacity.

There is no credible information in the record of this proceeding that pole-top antennas use 29.4% to 74% of a pole's total space and/or load capacity. To the contrary, AT&T Mobility demonstrated that pole-top antennas typically use 3% to 5% of pole's total load capacity.[37] The record further shows that the loads imposed on poles by pole-top antennas are the same order of magnitude as the loads imposed by CLEC and CATV wireline attachments in the communication space.[38] Based on this information, we conclude that it would be unduly discriminatory to levy an attachment fee on pole-top antennas that is 4 to

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[37] AT&T Mobility Informational Report (Dec. 5, 2014), at 6 - 7.

[38] AT&T Mobility Informational Report (Dec. 5, 2014), at 1 – 7, and Appendices H and I. See also CCTA-JVSV Informational Report (Dec. 5, 2014) at 3, and TURN Comments (Dec. 19, 2014) at 7- 8.

10 times the attachment fee levied on CLEC and CATV attachments (absent some other justification for a larger fee).[39]

We disagree with the Electric IOUs' position that it is necessary to charge a much higher attachment fee for pole-top antennas because electric utilities incur higher inspection and maintenance costs for pole-top antennas pursuant to GO 165. As the Electric IOUs know, GO 165 specifies the minimum inspection cycles for electric distribution and transmission facilities.[40] CMRS antennas are not electric distribution or transmission facilities, and thus are not subject to GO 165.[41] Rather, the responsibility to inspect and maintain CMRS pole attachments belongs to the owners of these attachments—the CMRS carriers.[42] As set forth in GO 95, Rules 31.2 and 94.2, CMRS carriers must inspect their pole attachments "frequently and thoroughly for the purpose of ensuring that they are in good condition and conform to [GO 95]."

Even if the Electric IOUs were to incur higher inspection and maintenance costs for pole-top antennas, the default pole-attachment fee adopted by today's decision for CMRS attachments ensures that the Electric IOUs are compensated

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[39] Assuming the attachment bracket for a pole-top antenna occupies 2 feet of pole space, the annual attachment fee adopted by today's decision would be 14.8% of the pole's annual cost-of-ownership (2 feet x 7.4%), or double the 7.4% attachment fee that applies to CLEC and CATV attachments which occupy 1 foot of pole space.

[40] The GO 165 inspection schedule is not affected by presence or absence of pole-top facilities installed by Electric IOUs, CMRS carriers, or others.

[41] GO 165 states at page 2, Section II: "This General Order does not apply to facilities of communication infrastructure providers." CMRS carriers are communication infrastructure providers.

[42] AT&T Mobility acknowledges that it is the CMRS carrier's obligation to inspect and maintain its own attachments. (AT&T Mobility Informational Report (Oct. 21, 2014), at page 25, Q&A 7.a.

for their costs.[43] CLECs and CATV corporations have been attaching facilities to utility poles for decades. Consequently, inspection and maintenance costs for pole attachments should already be embedded in the annual cost-of-ownership for poles and recovered through the 7.4% annual fee for pole attachments.[44]

We disagree with the Electric IOUs' argument that it is reasonable to charge a much higher attachment fee for pole-top antennas because when a pole with a pole-top antenna is retired, the replacement pole will need to be taller – and costlier -- to accommodate the clearance and strength requirements for the pole-top antenna. We believe the ROW Rules are clear that if a CMRS pole-attachment requires a taller replacement pole than would be the case without the attachment, the CMRS carrier must pay the extra cost for the taller pole.[45]

3.2.3.4 Shared Pole Space

In some circumstances, it may be possible for multiple CMRS attachments to share the same pole space (i.e., attached to the pole in the same horizontal plane but on different sides of the pole). When this occurs, the 7.4% attachment fee shall apply once per each vertical foot of pole length, regardless of the number of CMRS attachments that share the same pole space. If multiple CMRS

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[43] The annual cost-of-ownership for the pole, which is the basis for the 7.4% annual pole-attachment fee, includes all pole-related inspection and maintenance costs. In addition, the Commission held in D.98-04-062 that the pole-attachment fee adopted in that case may include an incremental amount to recover the pole owner's costs for regular safety inspections of CATV pole attachments. (D.98-04-062 at Findings of Fact 3 and 6, Conclusion of Law 1, and Ordering Paragraph 1.) PG&E and SCE have filed advice letters stating that their pole-attachment fees are based on D.98-04-062.

[44] PG&E and SDG&E already embed GO 165-related costs in their 7.4% fee. (Workshop Report (April 7, 2015), Appendix C, page C-3, Q&A 6.)

[45] D.98-10-058 at Sections IV.B and VIII.B, Conclusions of Law 21, 27, 55, and 59, and Appendix A, Sections VI.B, VII, and VIII.C.

attachments in the same pole space are owned by different entities, the 7.4% per-foot fee shall be allocated equally to each attachment.

We decline to adopt the Electric IOU/TURN proposal to charge a separate 7.4% attachment fee for each CMRS attachment that occupies the same vertical pole space. Under this proposal, two attachments that share the same pole space would pay twice for the space, and three attachments that share the same pole space would pay thrice. We conclude that it would be unduly discriminatory to charge CMRS attachments a fee that is double or triple the fee levied on CLEC and CATV attachments for the same amount of pole space.

3.2.3.5 Common Space

The first 15 to 18 feet of pole space above ground level is known as the "common space." Communication lines and power lines are not allowed in the common space in order to provide sufficient clearance for vehicles and other traffic to pass safely underneath the lines. However, CMRS equipment may be attached to a pole in the common space. A typical CMRS installation includes two or more attachments in a pole's common space that together can occupy several feet of pole space.[46]

We conclude that applying the 7.4% fee to CMRS attachments in the common space is consistent with the Commission's holding in D.98-10-058 that CLEC attachments which occupy more pole space than CATV attachments, or which otherwise encumber property to a greater degree than CATV attachments, may be charged a higher pole-attachment fee than CATV attachments.[47] CMRS pole installations occupy more pole space than CATV (and CLEC) installations

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[46] AT&T Mobility Informational Report (Oct. 21, 2014), at 1, 7, and Table 1.

[47] D.98-10-058, at Section IV.B and Conclusion of Law 21.

and, therefore, may be charged a higher pole-attachment fee than CATV (and CLEC) installations.[48]

We are not persuaded by AT&T Mobility and other Opponents that it is discriminatory to levy the 7.4% per-foot fee on CMRS attachments in the common space, but not on CLEC and CATV attachments in the common space. Most CMRS pole installations include attachments in the common space, while the vast majority of CLEC and CATV installations do not. Thus, CMRS installations are differently situated with respect to attachments in the common space. We conclude that because attachments in the common space comprise a significant proportion of all CMRS pole attachments, while the vast majority of CLEC and CATV attachments are in the usable space, it would be unduly discriminatory to exempt a significant proportion of CMRS attachments from the 7.4% fee when almost all CLEC and CATV attachments are subject to the fee.[49]

It would also be unfair to pole owners if CMRS attachments in the common space were exempt from the 7.4% fee. Because a pole has finite space and load-bearing capacity, the pole space and load bearing capacity that is devoted to CMRS attachments in the common space detracts from the common space available for other attachments,[50] and detracts from the load-bearing

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[48] AT&T Mobility's affiliate, AT&T California, charges for attachments in the common space. (Workshop Report (April 7, 2015), at 13.) It appears that PG&E and SDG&E also charge for attachments in the common space. (Electric IOUs Informational Report (Oct. 21, 2014), at Attachment G, Section 1.1; PG&E Informational Report (Dec. 5, 2014), Attachment 2; and SDG&E Informational Report (Dec. 9, 2014), Attachment A, at A-4.)

[49] If CMRS carriers did not pay for their use of the common space, their net cost per foot of occupied pole space would be significantly less than what CLECs and CATV attachers must pay per foot of occupied pole space, resulting in discriminatory application of the 7.4% attachment fee.

[50] Electric IOUs' Informational Report (Oct. 21, 2014) at 10. The inability to place attachments in the common space may preclude attachments elsewhere on the pole that cannot operate

capacity available for other attachments anywhere on the pole. Applying the 7.4% fee to CMRS attachments in the common space compensates pole owners for the opportunity costs they incur for such attachments.

We are not persuaded by AT&T Mobility and other Opponents that because the cost of the pole is apportioned over 13.5 feet of usable pole space (resulting in an annual attachment fee of 7.4% for each foot of usable space), CMRS attachments in the usable space pay a fair share of the pole's cost-of-ownership, without an additional 7.4% fee on CMRS attachments in the common space. The flaw in the Opponents' argument is that the 7.4% fee was adopted at a time when the vast majority of pole attachments were confined to the usable space. This paradigm has been upended by the rapidly growing CMRS industry that routinely places pole attachments in the common space. In effect, a pole's usable space now encompasses the common space.

3.2.3.6 Pole-Attachment Fees in Excess of 100%

The pole space occupied by a CMRS installation can exceed 10 feet, depending on the configuration and applicable safety clearances. This can lead to an annual pole-attachment fee for a CMRS installation that is 74.0% or more of the pole's annual cost-of-ownership. The following table shows that the implied fee for all pole attachments can exceed 100%:

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without attachments in the common space. (Id. See also IBEW 1245 Comments (July 7, 2014) at 2 – 3.)

Attachment	Occupied Pole Space (with Safety Clearances)	Annual Fee at 7.4% per Foot
CMRS Installation	10 Feet (Will Vary)	74.0%
7,500 Volt Power Lines	6 Feet (Will Vary)	44.4%
Telephone Cable	1 Foot	7.4%
CATV Cable	1 Foot	7.4%
Total	**18 Feet**	**133.2%**

The purpose of the 7.4% pole-attachment fee embodied in the ROW Rules is to ensure that attachers pay a reasonable share of a pole's cost-of-ownership. This fee is not meant to provide pole owners with revenues that exceed their cost-of-ownership for a pole.

We conclude that the pole-attachment fee for all components of a CMRS installation should not exceed 100% of the host pole's cost-of-ownership, less the proportion of the pole's cost-of-ownership that is allocable to the pole space occupied by other attachments. Using the above table as an example, the CMRS installation uses 10 feet out of 18 feet of total occupied pole space. The proportion of the pole's total cost-of-ownership that is allocable to the CMRS installation is 10/18, or 55.6%. In situations where less than 100% of the pole's cost-of-ownership is recovered (including the costs allocable to the pole space occupied by other attachers), the pole-attachment fee of 7.4% per foot shall apply to CMRS installations until the 100% cost-recovery limit is reached.[51]

[51] Mathematically, the 7.4% per-foot attachment fee shall apply to CMRS attachments until 13.5 feet of pole space is occupied by all attachments (100% ÷ 7.4% per foot = 13.5 feet). This equates to 14.0 feet when rounded to the nearest whole foot. Once more than 14 feet of pole space is occupied by all attachments, the 7.4% fee for CMRS attachments shall be adjusted as described in the body to today's decision.

We realize that the 100% cap on cost recovery for each pole may be complex to administer on a pole-by-pole basis. As permitted by the ROW Rules, parties may negotiate terms and conditions that suit their needs.[52]

We recognize that because the scope of today's decision is limited to CMRS carriers, the 100% cap on cost recovery applies only to CMRS pole attachments, and not to CLEC and CATV pole attachments. CLECs and CATV corporations may request that the 100% cap on cost recovery apply to their pole attachments, too, by filing a petition for rulemaking pursuant to Rule 6.3 of the Commission's Rules of Practice and Procedure. Any such petition should address, as appropriate, the issues in Section 3.2.3.8 of today's decision.

3.2.3.7 Conduits, Risers, and Electric Meters

We agree with the parties that the 7.4% per-foot attachment fee should not apply to conduits, risers, and electric utility meters that are attached to a pole as part of a CMRS installation. In our opinion, it is neither necessary nor feasible to devise a rule that specifies the amount of pole space that a CMRS conduit or riser renders unusable for non-CMRS attachments.

The electric utility meter for a CMRS installation is owned by the electric utility. Because the electric utility decides where to place the meter (e.g., on the pole, on a surface-mound enclosure, or in an underground vault), the CMRS carrier should not be charged a pole-attachment fee if the electric utility elects to place the meter on the pole.

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[52] The Electric IOUs and TURN expect pole-attachment fees will seldom exceed 100% of a pole's cost-of-ownership because safety clearances limit the number of attachments on a pole. TURN anticipates that the dollars at stake are small for both pole owners and attachers. (TURN Comments (Dec. 19, 2014), at 12.)

3.2.3.8 No Changes to Charges and Fees for CLEC and CATV Attachments

Today's decision does not alter the existing charges and fees established by the ROW Rules for CLEC and CATV wireline attachments.

We decline to adopt CCTA and PCIA's recommendation to apply the revised ROW Rules adopted by today decision for CMRS carriers to wireless facilities installed by CLECs and CATV corporations. The Scoping Memo specifically excluded from the scope of this proceeding "revised fees and charges for [CLEC] and cable TV pole attachments.[53]" However, there is no obvious reason why the revised ROW Rules adopted by today's decision for CMRS facilities should not apply to wireless facilities installed by CLECs and CATV corporations once certain issues, identified below, are resolved.

We encourage CLECs and CATV corporations to file at their earliest convenience, pursuant to Rule 6.3 of the Commission's Rules of Practice and Procedure, a petition for a rulemaking proceeding to extend the ROW Rules for CMRS facilities to the wireless facilities installed by CLECs and CATV corporations. Any such petition should address the following issues:

- How to harmonize the "per foot" pole-attachment fee adopted by today's decision for CMRS pole attachments with the statutory provision in Pub. Util. Code § 767.5(a)(3) that establishes a 7.4% "per pole" fee for CATV wireline communication system attachments (and which applies to CLEC pole attachments pursuant to D.98-10-058).
- For CLEC and CATV pole installations that include both wireline communication system components and wireless communication system components, how to identify and distinguish the components that are subject to the "per pole" fee and the components that are subject to the "per foot" fee.

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[53] Scoping Memo at 7.

- The Commission's authority to apply and enforce its ROW Rules and safety regulations with respect to CATV corporations' wireless facilities in light of the Commission's conclusion in D.15-05-002 that the term "cable" in Pub. Util. Code § 216.4 does not include satellites and other forms of wireless transmission.[54]

3.3. Adopted Changes to the Text of the ROW Rules

The adopted amendments to the text of the ROW Rules are contained in Appendix A of today's decision. The adopted amendments consist of the following. First, we add the following definition of "CMRS carrier":

> "Commercial Mobile Radio Service (CMRS) carrier" is an entity that holds (1) a current Wireless Identification Registration with the California Public Utilities Commission, or (2) a current Certificate of Public Convenience and Necessity issued by the California Public Utilities Commission that authorizes the holder to provide Commercial Mobile Radio Service.

As recommended by SED, our adopted definition of "CMRS carrier" uses the term "Wireless Identification Registration" instead of the terms "cellular services, personal communications services, wide area specialized mobile radio services, and two-way radiotelephone services." This was done in recognition of the fact that wireless technology and services continue to evolve. It is possible that these terms may not always describe CMRS carriers.[55]

Second, we insert the defined term "CMRS carrier" into the operative provisions of the ROW Rules where the defined terms "telecommunications carrier" and "cable television company" appear. We also adopt ancillary changes to the ROW Rules that are necessary to integrate CMRS carriers into the

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[54] D.15-05-002, at 38 and Conclusion of Law 5.

[55] A CMRS carrier that offers intrastate wireless telecommunication services in California must file a Wireless Identification Registration with the Commission. (D.13-05-035 and D.94-10-032.)

rules, but which are otherwise non-substantive. These ancillary changes include the addition of the adjective "telecommunications" before the noun "carrier" at several places in the ROW Rules so that the rules clearly distinguish between "telecommunications carriers" and "CMRS carriers."

Third, we correct a non-substantive error in the text of the ROW Rules, at Section VI.A, as recommended by AT&T Mobility.[56]

Fourth, as suggested by CCTA, we add a new section to the ROW Rules that separately lists the charges and fees for CMRS pole attachments so that it is clear that such charges and fees are distinct from, and do not apply to, CLEC and CATV wireline attachments.[57] The existing sections are renumbered to reflect the addition of the new section for CMRS charges and fees.

Finally, as recommended by the Electric IOUs, our adopted revisions to the ROW Rules include a new requirement in Section VI.B.1.c that a public utility must apply the same charges and fees to all similarly situated CMRS carriers.[58]

We decline to adopt AT&T Mobility's recommendation to revise the definition of "usable space" in the ROW Rules to include "any attachment at the top of the pole or on a pole top extension." The proposed text could be misinterpreted as defining pole-top attachments and extensions as being an integral part of the pole instead of an attachment to the pole.

3.4. No Tariffs for CMRS Attachments

We decline to adopt TURN's recommendation to order PG&E, SCE and SDG&E to file advice letters for approval of tariffs that establish: (a) CMRS pole

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[56] OIR 14-05-001, Appendix A.

[57] CCTA Reply Comments (July 17, 2014), at 2.

[58] Electric IOUs Comments (July 7, 2014), at 15 and A-1.

attachment eligibility; (b) service priority; (c) fees and charges for CMRS attachments; and (d) a standard contract form for CMRS attachments.[59] A core principle of the ROW Rules is that attachers and pole owners should negotiate their own contracts for prices and access to utility infrastructure, and fall back on the ROW Rules only as necessary.[60] In accordance with this principle, the Commission specifically rejected a tariff requirement like TURN proposes here.[61]

3.5. Accounting and Ratemaking for CMRS Attachments

The record of this proceeding indicates that the adopted charges and fees for CMRS attachments will result in revenues for pole owners, and expenses for CMRS carriers, that are immaterial compared to their total revenues and costs.[62]

Consistent with TURN's recommendation, public utilities shall record attachment fees for CMRS facilities as Other Operating Revenues, and record make-ready charges as either Other Operating Revenue or contributed plant, depending on whether the utility's make-ready expenditures are expensed or capitalized.[63] This accounting treatment benefits utility ratepayers by reducing the utility's overall revenue requirement collected from ratepayers.[64] For cost-of-

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[59] TURN Comments (Dec. 19, 2014), at 8 – 9.

[60] D.98-10-058, Appendix A, Section VI.A.1.

[61] D.98-10-058, at 19. After a contract is negotiated, the utility must file a copy of the executed contract with the Commission. (D.98-10-058, Appendix A, Section VI.C.1.)

[62] TURN Comments (Dec. 19, 2014), at 2 – 5.

[63] TURN Comments (Dec. 19, 2014), at 15; and TURN Comments (April 17, 2015), at 8.

[64] Many utility poles in PG&E's and SCE's service territories are owned jointly by the Electric IOU and communication companies. This is not true in SDG&E's service territory where SDG&E is the sole owner of its poles. When the pole is jointly owned, the communication owners administer the communication space and receive the revenues from attachments in the communication space. The attachment fees from such tenants are not shared with the Electric IOU.

service utilities, Other Operating Revenue and contributed plant are typically forecast in general rate case proceedings.

3.6. Certification of Compliance with 47 U.S.C. §§ 224(c)

By virtue of the amended ROW Rules adopted by today's decision, we hereby certify to the FCC that we regulate the rate, terms, and conditions of access to poles, ducts, conduits, and rights-of-way by CMRS carriers in conformance with 47 U.S.C. §§ 224(c)(2) and (3).

3.7. Implementation of Revised ROW Rules

Pursuant to Rule 6.3(a) of the Commission's Rules of Practice and Procedure, and for the reasons set forth in the Electric IOUs' comments on the proposed decision,[65] the revisions to the ROW Rules adopted by today's decision shall apply prospectively to CMRS installations beginning 120 days after the effective date of today's decision. The adopted revisions to the ROW Rules do not apply to the contractual rates, terms, and conditions for existing CMRS installations.

3.8. New Safety Regulations for CMRS Pole Attachments

To protect safety and system reliability, GO 95 prescribes rules for the design, construction, maintenance, repair, and replacement of overhead lines and support structures. In D.08-10-017 and D.07-02-030, the Commission amended GO 95 to include rules for antennas attached to utility poles and towers.

To further ensure safety and reliability, the ROW Rules require that "[a]ccess to utility rights of way and support structures shall be governed at all times by… General Order Nos. 95 and 128 and by Cal/OSHA Title 8. Where necessary and appropriate, said General Orders shall be supplemented by the

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[65] Electric IOUs Comments on the proposed decision (Nov. 19, 2015), at 2 - 3.

National Electric Safety Code, and any reasonable and justifiable safety and construction standards which are required by the utility.[66]"

In keeping with our focus on safety and reliability, the scope of this proceeding includes the adoption of new regulations to ensure that CMRS pole attachments are designed, constructed, and maintained to (1) protect the safety of workers and the public, and (2) preserve the reliability of co-located utility facilities such as power lines and telephone lines.[67] The Commission has authority to adopt such regulations pursuant to Pub. Util. Code §§ 701 and 761 et seq. In accordance with these objectives, parties were invited to submit proposed safety regulations for wireless attachments. The Electric IOUs proposed several revisions GO 95 in their comments filed in July 2014. SED proposed additional revisions to GO 95 in its report filed on December 5, 2014.

Workshops were held in February and March of 2015 to provide parties an opportunity to evaluate the Electric IOUs' and SED's proposed revisions to GO 95. As a result of this process, certain proposed revisions to GO 95 were withdrawn or revised, and several alternative proposals were offered.

On April 7, 2015, AT&T Mobility filed a Workshop Report on behalf of the parties that contained the final set of proposed revisions to GO 95. We address each of the proposed revisions below.

3.8.1. Proposed Revisions to Rules 21.0-D and 87.7-B (Guard Arms)

3.8.1.1 Summary of the Proposals

Currently, Rule 21.0-D of GO 95 prohibits the installation of conductors on the bottom side of guard arms (with certain exceptions). Similarly, Rule 87.7-B

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[66] D.98-10-058, Appendix A, Section XI.

[67] OIR 14-05-001, at 23 – 25.

prohibits the installation of communication conductors, cables, or messengers on the top or side of guard arms (with certain exceptions).

In the Workshop Report, the parties submitted two consensus proposals to revise Rules 21.0-D and 87.7-B to prohibit the installation of antennas on guard arms. The proposed revisions to text of Rules 21.0-D and 87.7-B are contained in Appendix B of today's decision. The parties anticipate that these proposed revisions to GO 95 will have no financial or environmental impacts.

3.8.1.2 Positions of the Parties

Guard arms are oftentimes attached to utility poles above communication cables in order to provide electric utility workers with a place to rest their feet that is uncluttered and free from inadvertent contact with ground wires or messengers. The parties concur that prohibiting the installation of antennas on guard arms will enhance safety by (1) keeping guard arms free of clutter; and (2) preventing unnecessary or unexpected exposure to radio frequency radiation to workers who ascend/descend utility poles.

3.8.1.3 Discussion

We agree with the parties that it is reasonable to revise GO 95 to prohibit the installation of antennas on guard arms in order to protect the safety of utility personnel and contractors. While no party is aware of any CMRS carrier attempting to attach antennas to guard arms, the codification of existing practice will ensure its continued use.

The adopted revisions to Rules 21.0-D and 87.7-B are contained in Appendix C of today's decision.

3.8.2. Proposed New Rule 94.3-D (Load Calculation)

3.8.2.1 Summary of the Proposal

Rule 43 of GO 95 specifies the minimum ice, temperature, and wind loads that must be used to determine the required strength of overhead structures. Rule 44 specifies the minimum safety factors for the design, construction, and maintenance of overhead structures. Rule 44 defines "safety factors" as:

> The safety factors specified in these rules are the minimum allowable ratios of material and/or line element strengths to the effect of design loads as specified in Rule 43.

Rule 44.2 requires an entity planning to add facilities to a structure that materially increase the load on the structure to perform a load calculation to ensure that the additional facilities do not reduce the safety factors for the structure below minimum requirements. Rule 44.2 also requires that such load calculations be based on "the existing condition and proposed configuration, information provided under Rule 44.4, conservative values of relevant parameters, industry recognized values of relevant parameters, or any combination thereof."

SED proposes a new Rule 94.3-D that would require a load calculation prior to the installation of any wireless facilities on utility poles, or when pole loads are altered due to any other condition. SED's proposed rule would also require that "actual specifications" be used in load calculations, not assumptions or estimates. SED defines the term "actual specifications" to mean "as-built conditions." The text of SED's proposed Rule 94.3-D is contained in Appendix B of today's decision.

SED anticipates that its proposed Rule 94.3-D will not have significant costs or environmental impacts.

3.8.2.2 Positions of the Parties

SED declares that pole overloading is a significant problem in California. This has public safety implications because overloaded poles can fail and ignite fires. SED cites the Commission's Malibu Canyon Fire proceeding (Investigation 09-01-018) as an example where an overloaded pole failed and caused a major fire. SED's proposed Rule 94.3-D is intended to reduce incidents of overloaded poles by requiring a load calculation before wireless facilities are attached to a pole, or when pole loading is altered due to any other condition.

SED states that load calculations which use incorrect inputs yield invalid results, potentially leading to overloaded poles that appear on utility records as meeting safety-factor requirements. To ensure accurate load calculations, SED's proposed Rule 94.3-D would require the "actual specifications" of all pole attachments to be used in load calculations.

SED disagrees with the position of several parties, summarized below, that it is reasonable to use conservative assumptions in load calculations instead of "actual specifications." SED responds that the use of conservative assumptions can result in poles that are unbalanced or overloaded. SED warns that if its proposed Rule 94.3-D is rejected, utilities will continue to use unsafe assumptions in load calculations.

SED acknowledges that the problem addressed by its proposed Rule 94.3-D is not unique to CMRS facilities. However, because this proceeding focuses on CMRS carriers, SED's proposed rule must likewise focus on CMRS facilities. SED recommends that its proposed rule be applied to all pole attachments in future Commission proceedings.

CFC, IBEW 1245, and TURN take a neutral position on SED's proposed rule. TURN comments that while it agrees the proposed rule will strengthen

protections against pole overloading and will not have significant costs for ratepayers, TURN is concerned that the proposed Rule 94.3-D does not specify who would perform and retain load calculations.

SED's proposed rule is opposed by AT&T Mobility, CCTA, CTIA, JVSV, PCIA, and the Electric IOUs. Several of the Opponents state that wireless attachments do not pose a greater risk for pole overloading than other types of attachments. To the contrary, wireless attachments generally impose less wind load than electric utility attachments, and approximately the same wind load as CLEC and CATV attachments. As a result, adopting stricter load-calculation requirements for wireless attachments is not only unnecessary, it would be unlawfully discriminatory.

All of the Opponents agree that SED's proposal is unnecessary because Rule 44.2 already requires a load calculation for new pole attachments that materially increase the load on a structure. The only new aspect of SED's proposed Rule 94.3-D is that it would require load calculations for attachments that do not materially increase the load on a structure. In the Opponents' view, public safety is better served by focusing resources on issues that have a material effect on safety, not on those that, by definition, are immaterial.

The Opponents are also concerned that SED's proposed rule would require a new load calculation whenever "loading is altered as a result of any other condition." The Opponents state that because the term "other condition" is not defined, the term does not provide useful guidance for enhancing safety.

The Opponents are adamantly against the part of SED's proposed Rule 94.3-D that would require the use of "actual specifications" in load calculations. The Opponents argue that this element of SED's proposal conflicts with the current provision in Rule 44.2 that requires load calculations to "be

based on existing conditions and proposed configuration, information provided under Rule 44.4, conservative values of relevant parameters, industry recognized values of relevant parameters, or any combination thereof."

The Opponents dispute SED's assertion that performing load calculations with anything besides "actual specifications" may result in overloaded poles. This is simply untrue, according to the Opponents. The Opponents state that Rule 44.2 allows the use of "conservative values," which means that load calculations can use parameters that overestimate the load on the pole. The Opponents submit that overestimating loads is an inherently safer practice than using SED's "actual specifications."

The Opponents also believe that the costs of performing load calculations using "actual specifications" would be prohibitive. The Electric IOUs admit that they do not always have "actual specifications" for electric utility conductors and equipment that were attached to poles many years ago. In these situations, the only way to obtain actual specifications would be to physically measure and weigh attachments at great expense. Alternatively, CMRS carriers could attach to less optimally located poles where the actual specifications of the existing attachments are known, or forgo service improvements or expansion altogether.

3.8.2.3 Discussion

The issue before us is whether to adopt SED's proposed Rule 94.3-D. The key elements of the proposed rule are:

- A requirement to perform a load calculation each time wireless facilities are installed on a pole, or when loading is altered as a result of any other condition.
- A requirement that the parameters used in the load calculation be based on the "actual specifications" of the facilities attached to the pole, and not on conservative values and/or industry recognized values of relevant parameters.

As a general principle, we will adopt a new safety regulation in this proceeding for CMRS facilities if there is a demonstrated need for the new regulation to protect worker safety and/or public safety. The adopted regulation should be carefully tailored to remedy an identified safety hazard while avoiding unnecessary expenditures of time, money, and resources.

To assess the merits of SED's proposal, it is helpful to first review the Commission's regulations regarding pole overloading.[68] We interpret GO 95's Rule 40 et seq., together with Pub. Util. Code § 451, as prohibiting pole overloading. Both pole owners and attachers have an affirmative duty to prevent any pole attachments that would cause, or exacerbate, pole overloading. To prevent pole overloading, Rule 44.2 requires a load calculation for new pole attachments that "materially increase the load on a structure <u>to ensure that the addition of the facilities will not reduce the safety factors below the values specified by Rule 44.3</u>." (Emphasis added.) Rule 44.2 is a minimum requirement, however. Pole owners and attachers must take all precautions that may be necessary to ensure that poles are not overloaded. Such precautions may include load calculations for new attachments in situations not required by Rule 44.2.

With our regulations regarding pole overloading in mind, we next consider the merits of SED's proposed Rule 94.3-D. The proposed rule is premised on SED's claim that pole overloading is a significant problem. This is a troubling claim, as it implies widespread violations of GO 95 and Pub. Util.

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[68] Today's decision defines "pole overloading" as a failure to meet the minimum safety factor requirements in Rules 43, 44, and 48 as supplemented by Rules 31.1 and 40.

Code § 451. The only support that SED offers for its claim is the Commission's Malibu Canyon Fire Investigation (I.) 09-01-018.[69]

We have reviewed the Commission decisions in I.09-01-018, two of which are relevant here. In D.13-09-026, one of the Respondents, NextG Networks of California, Inc. ("NextG"), conceded that it had attached a fiber optic cable to a pole despite being informed by SCE that the attachment would overload the pole, and despite SCE's denying NextG permission to attach to the pole because of pole overloading.[70] The overloaded pole subsequently failed during a Santa Ana windstorm. Although not stated explicitly in D.13-09-026, it is apparent that a load calculation had been performed by NextG and/or SCE.[71]

In D.13-09-028, SCE admitted that (1) a utility pole did not comply with GO 95 safety factor requirements as a result of NextG's attachment of fiber optic cable facilities to the pole; and (2) SCE violated Pub. Util. Code § 451 by not taking prompt action to prevent NextG from attaching facilities to several poles after an SCE employee had determined that NextG's attachments would overload the poles. Once again, although not stated explicitly in D.13-09-028, it is apparent that load calculations had been performed.

These two decisions in I.09-01-018 reveal that pole overloading occurred because NextG and SCE disregarded load calculations that had been performed. SED's proposed Rule 94.3-D, which would require load calculations for all new

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[69] The Malibu Canyon Fire occurred on October 21, 2007, when three interconnected utility poles located next to Malibu Canyon Road in Los Angeles County fell to the ground during a Santa Ana windstorm. The Malibu Canyon Fire burned 3,836 acres, destroyed 14 structures and 36 vehicles, and damaged 19 other structures. There were no reported injuries or fatalities. (D.13-09-026, Finding of Fact 1.)

[70] D.13-09-026, Finding of Fact 3.

[71] The only way SCE could have known the pole would be overloaded is if a load calculation had been performed.

wireless attachments, would not have prevented the overloaded poles at issue in I.09-01-018. More broadly, none of the decisions in I.09-01-018 demonstrates that pole overloading is a widespread problem in general, or with respect to CMRS attachments in particular.[72]

For the preceding reasons, we conclude that there is not a sufficient record in this proceeding to adopt SED's proposed Rule 94.3-D. In its comments on the proposed decision, SED cites for the first time D.15-11-021,[73] issued in A.13-11-003, wherein the Commission found that the record of that proceeding suggests that nearly 19% of SCE's poles are overloaded.[74] We appreciate SED's citation of D.15-11-021, but it comes too late to support the adoption of SED's proposed Rule 94.3-D.[75] Furthermore, neither D.15-11-021 nor SED explain why pole overloading is occurring. Without such information, we cannot be confident that SED's proposed solution – to require a load calculation every time CMRS facilities are installed on a pole, or when pole loading is altered as a result of any other condition – is an appropriate remedy.

We also question the efficacy of the requirement in SED's proposed Rule 94.3-D to perform a load calculation each time CMRS facilities are attached to a pole. Rule 44.2 already requires a load calculation for any attachment that

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[72] Three decisions issued in I.09-01-018 require an assessment or survey of pole overloading in SCE's service territory. (D.12-09-019 at 2; D.13-09-026 at 2; and D.13-09-028 at 2.) Data from these assessments/surveys might provide a foundation for SED's proposed Rule 94.3-D, but such data was not submitted in the instant rulemaking proceeding.

[73] D.15-11-021 was issued after the proposed decision was mailed.

[74] SED Comments on the proposed decision (Nov. 19, 2015), at 1–3, citing D.15-11-021 at 134 and Findings of Fact 144 – 148.

[75] We cannot rely on D.15-11-021 as the basis for factual findings in today's decision because parties have not had notice that D.15-11-021 might be used for this purpose and an opportunity to respond. (D.01-09-025, 2001 Cal. PUC LEXIS 747, at *6 - *9.)

materially increases the load on a structure. SED's proposed rule would go further by requiring a load calculation when there is an immaterial increase in load, no change in load, or a decrease in load. Based on the record of this proceeding, we do not believe that requiring load calculations in these situations would meaningfully increase public safety.

We are not convinced that the requirement in SED's proposed Rule 94.3-D to perform a load calculation each time "loading is altered as a result of any other condition" would enhance safety. SED did not define the term "other condition" or explain why "other conditions" would materially increase the load on a pole. In situations where there is no material increase in load, we are not persuaded at this time that there would be a meaningful increase in public safety by requiring load calculations every time "other conditions" cause an immaterial increase in load, no increase at all, or a decrease in load.

We share the concern raised by AT&T Mobility, the Electric IOUs, and others about the mandate in SED's proposed rule to use "actual specifications" in load calculations. Currently, Rule 44.2 requires load calculations to "be based on existing condition and proposed configuration, information provided under Rule 44.4, conservative values of relevant parameters, industry recognized values of relevant parameters, or any combination thereof." This Rule 44.2 requirement was adopted in D.14-02-015 at SED's behest. There, the Commission held:

> Loading calculations are essential for determining if an existing structure can safely support the planned addition of facilities, or if the structure needs to be reinforced or replaced before the planned facilities are added. It is imperative to public safety that electric utilities and CIPs use relevant and accurate information in their loading calculations. SED's

> proposed revisions to Rule 44.2 will help ensure that appropriate information is used. (D.14-02-015 at 44.)

SED did not cite any instances where the recently adopted Rule 44.2 is being misinterpreted, misapplied, or has resulted in an unsafe condition.

We are not persuaded at this time by SED's assertion that using conservative values as allowed by Rule 44.2 is unsafe. It is a common practice among utilities to use conservative values to ensure that a pole can support the added load.[76] As AT&T Mobility explains:

> Among other things, Rule 44.2 allows the use of "conservative values." That means calculations can be made using weights, dimensions and other data that would *over*estimate the load on the pole. Overestimating weight and load results in *more stringent* safety requirements… By definition, "actual data" (being less conservative than conservative data) would result in the calculation of lower loads on the pole, which in turn would cause more poles to pass the load calculations. (AT&T Mobility Reply Comments (April 24, 2015), at 7. Emphasis in original. Footnotes omitted.)

Based on the record of this proceeding, we agree with AT&T Mobility and other parties that using conservative values in load calculations, as allowed by Rule 44.2, is safe. We emphasize, however, that a utility's decision to use conservative values in load calculations should always result in equal or greater safety compared to using actual specifications in load calculations. If this is not the case, the utility must use actual specifications.

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[76] Workshop Report (April 7, 2015), at E-6; AT&T Mobility Comments (April 17, 2015), at 11-12; CTIA Comments (April 17, 2015), at 8; CTIA Reply Comments (April 24, 2015), at 7; Electric IOUs Reply Comments (April 24, 2015), at 8; and PCIA Reply Comments (April 24, 2015), at 3 – 4.

For the previous reasons, we decline to adopt at this time SED's proposed Rule 94.3-D. However, the issues raised by SED have caused us to closely examine Rule 44.2, resulting in our finding a potential defect in the rule. Specifically, Rule 44.2 requires a load calculation for any attachment that will result in a material increase in load. Rule 44.2 defines "material increase" as "an addition which increases the load on a structure by more than five percent per installation, or ten percent over a 12-month span, of the electric utility's or Communication Infrastructure Provider's current load." This definition does not address situations where (i) an increase in load of less than 5% would overload the pole; and (ii) an increase in load of less than 10% over a 12-month span would overload the pole.

We will direct SED to evaluate whether Rule 44.2's definition of "material increase" should be revised. As part of its evaluation, SED should confer with the General Order 95 Rules Committee ("Rules Committee").[77] SED shall complete its evaluation within 12 months. At that time, SED shall either (1) file a petition for rulemaking pursuant to Rule 6.3 of the Commission's Rules of Practice and Procedure to revise Rule 44.2[78]; or (2) serve notice that SED concludes, as a result of its evaluation, that no changes to Rule 44.2 are necessary.

We emphasize that there is nothing in the record of this proceeding which indicates that the definition of "material increase" in Rule 44.2 has resulted in unsafe attachments. Furthermore, as described previously, both pole owners and pole attachers are required by GO 95 and Pub. Util. Code § 451 to ensure that

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[77] The Rules Committee consists of electric utilities, communication utilities, cable television corporations, trade associations, and labor unions. The Rules Committee provides a forum to share information on GOs 95 and 128 and to develop consensus proposals to revise GOs 95 and 128. (D.15-01-005 at 2 – 3.)

[78] SED may file the Rule 6.3 petition jointly with other parties.

new pole attachments do not cause overloading. Consequently, regardless of the definition of "material increase" currently in Rule 44.2, both pole owners and pole attachers must ensure that new attachments do not overload poles.[79]

3.8.3. Proposed Revisions to Rule 94.5-A (Marking)

3.8.3.1 Summary of the Proposal

Rule 94.5-A of GO 95 requires the owners and operators of antennas installed on utility poles (together, "antenna owners") to enter into an agreement with the pole owners that includes "marking requirements that are substantially similar to and achieve at least the same safety standards as those set forth in Appendix H of GO 95."

Appendix H of GO 95 is the text of a Settlement Agreement that was approved by the Commission in D.07-02-030. Among other things, Appendix H requires those antenna owners who are parties to the Settlement Agreement to attach a sign to the host utility pole that (1) identifies federal radio frequency (RF) exposure categories and exposure limits, (2) is visible to workers who ascend the pole, and (3) is made of weather resistant material.

SED's proposed revisions to Rule 94.5-A would require antennas to be marked exactly as set forth in Appendix H. The text of SED's proposed revisions to Rule 94.5-A are in Appendix B of today's decision. SED anticipates that its proposal will not have significant financial or environmental impacts.

3.8.3.2 Positions of the Parties

SED believes that Rule 94.5-A is vague because it requires antenna owners to attach signs to poles that are "substantially similar to and achieve at least the

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[79] The ROW Rules also authorize pole owners to impose conditions and restrictions on pole attachments that are necessary to ensure safety. (D.98-10-058, Section VII.A.2.)

same safety standard as Appendix H of GO 95." SED states that its proposal would remove ambiguity by requiring that RF warning signs must comply with Appendix H of GO 95. SED submits that clarifying the applicability of a rule that protects workers from exposure to RF radiation would increase safety.

In response to criticisms of its proposal, summarized below, SED asserts that its proposal would not modify the Settlement Agreement in Appendix H of GO 95 that was signed by SED's predecessor, the Consumer Protection and Safety Division (CPSD). Rather, SED's proposal would modify the text of Rule 94.5-A, which was not part of the settlement.

SED's proposal is supported by IBEW 1245. Other parties take a neutral position on the proposal, including CFC, SDG&E, and TURN.

The proposal is opposed by AT&T Mobility, CCTA, CTIA, JVSV, PCIA, PG&E, and SCE. The Opponents dispute SED's claim that Rule 94.5-A is too vague to protect worker safety. The Opponents cite the Commission's holding in D.07-03-020 that Rule 94.5-A, as currently written, does protect worker safety.[80]

A few Opponents allege that SED's attempt to revise Rule 94.5-A may violate the Settlement Agreement in Appendix H of GO 95 that was signed by SED's predecessor, CPSD. According to these Opponents, CPSD agreed to Rule 94.5-A that SED now seeks to modify, and CPSD waived all rights to challenge the rule. The Settlement Agreement expressly binds successor entities such as SED.

Several Opponents contend that the Commission lacks jurisdiction to adopt SED's proposed revisions to Rule 94.5-A. They assert that the FCC has

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[80] D.07-02-030, at 15 - 16.

exclusive jurisdiction to regulate RF emissions pursuant to 47 U.S.C. § 332(c)(7)(B)(iv), which states as follows:

> No State or local government or instrumentality thereof may regulate the placement, construction, and modification of personal wireless service facilities on the basis of the environmental effects of radio frequency emissions to the extent that such facilities comply with the [FCC's] regulations concerning such emissions.

The Opponents argue that because SED's proposed revisions to Rule 94.5-A require the placement of signs on wireless facilities that pertain to RF emissions, the proposed revisions directly conflict with 47 U.S.C. § 332(c)(7)(B)(iv).

The Opponents aver that the current Rule 94.5-A avoids conflict with federal jurisdiction because of the way the rule was adopted. Specifically, Rule 94.5-A, and the Settlement Agreement to which it refers, were the result of negotiations between national wireless carriers, Commission staff, and other stakeholders. By approving a settlement that binds the national wireless carriers to specific signage requirements regarding RF exposure, rather than a Commission rule on this topic, the Commission avoided conflict with federal jurisdiction.

The Opponents state that while the settling parties included most pole owners and wireless carriers, the Commission recognized that some antenna installations might not be covered by the Settlement Agreement. In response to this incomplete coverage, the Commission adopted Rule 94.5-A, which requires antenna owners to have an agreement with the pole owner(s) that includes signage requirements that are substantially similar to and achieve at least the same safety standards as those in the Settlement Agreement in Appendix H of GO 95. The Opponents claim this language in Rule 94.5-A was specifically crafted to solve the Commission's jurisdictional restrictions.

The Opponents caution that if the Commission adopts SED's proposed revisions to Rule 94.5-A, there will likely be legal challenges to address the jurisdictional issues at stake.

3.8.3.3 Discussion

The issue before us is whether to adopt SED's proposed revisions to Rule 94.5-A. Our primary standard for deciding this issue is whether SED's proposal will improve safety at a reasonable cost.

The text of the current Rule 94.5-A and SED's proposed revisions to the rule are shown below:

> **Current Rule 94.5-A**
>
> No antenna owner or operator shall install an antenna on a joint use pole unless such installation is subject to an agreement with the pole owner(s) that includes marking requirements that are substantially similar to and achieve at least the same safety standards as those set forth in Appendix H to GO 95.
>
> **SED's Revised Rule 94.5-A**
>
> Antennas shall be marked in accordance with Appendix H, including Exhibit A, to GO 95.

The current Rule 94.5-A and SED's revised Rule 94.5-A both refer to Appendix H of GO 95. Appendix H is a Settlement Agreement that was approved by the Commission in D.07-02-030. The relevant parts of Appendix H are Sections 1 and 4, and Exhibit A, which state as follows:

> The Settling Parties agree that, in the event any party, as a joint owner, lessee or licensee ("Antenna Owner/Operator") seeks to install or causes the installation of an Antenna (as defined in General Order (GO) 95 Rule 20.0) on a joint use utility pole, it is agreed that:
>
> **1. Markings Related to the FCC's MPE Limits**.
>
> The Antenna Owner/Operator shall provide, and update as necessary, accurate information regarding compliance with the Federal Communications Commission's Maximum Permissible

Exposure (MPE) limits as set forth in Title 47 of the Code of Federal Regulations (CFR) for each particular Antenna installation. The Antenna Owner/Operator shall communicate such information through the use of a pole mounted marking as described in Exhibit A (Additional Marking Requirements) and in writing to the other utilities and/or companies with facilities affixed to the pole in accordance with Paragraph 4 of this Agreement.

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4. Adoption of Operating Procedures.

The Settling Parties further agree to memorialize the agreements set forth in Section 1 and 2 of this Agreement (including the procedures and protocols to be adopted thereunder) in separate, private agreements with affected utilities, companies or municipalities or in the Northern California Joint Pole Association's Operating Routine. Such agreements and procedures shall be adopted in a timely manner and Settling Parties agree to execute any and all supplementary documents and take all actions which may be necessary or appropriate to give full force and effect to the terms and intent of this Agreement.

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Exhibit A - Additional Marking Requirements

Antenna Owner/Operators are responsible for the installation and upkeep of their sign or signs at each joint use site.

a. In addition to the requirements of GO 95, Rule 94.5 (Marking), at a minimum, each Antenna Owner/Operator will also affix a sign that:

(i) identifies the applicable FCC exposure category (General Population/Uncontrolled or Occupational/Controlled),

(ii) identifies the FCC's recommended minimum approach distance as set forth in 47 C.F.R.; and

(iii) is of weather and corrosion resistant material.

b. The Antenna Owner/Operator will place the sign so that it is clearly visible to workers who otherwise climb the pole or ascend by mechanical means and affix said sign:

(i) no less than three (3) feet below the Antenna (measured from the top of the sign); and

(ii) no less than nine (9) feet above the ground line (measured from the bottom of the sign)

c. The Antenna Owner/Operator may install a single sign that contains the information required by GO 95, Rule 94 and section (a) above, or separate signs. In the event one or more Antennas are affixed to a pole, each Antenna Owner/Operator shall provide a sign with sufficient information to allow workers to identify its Antennas.

We find that the signage requirement in GO 95's Appendix H is a reasonable, clear, and enforceable regulation for protecting the safety of people working near antennas attached to utility poles. We agree with SED that the current text of Rule 94.5-A, which allows signs that are "substantially similar to and achieve at least the same safety standards as those set forth in Appendix H to GO 95," is a vague safety standard, as it allows each pole-attachment agreement to define what is "substantially similar to" and achieves "at least the same safety standards" as Appendix H of GO 95. Such ambiguity allows the safety standard to vary from pole to pole, across antenna owners, and over time. Ultimately, if a safety incident occurs, an after-the-fact investigation of the incident is the worst time to determine if the signs at issue are "substantially similar to" and "achieve at least the same safety standards" as Appendix H of GO 95. In our opinion, the public interest is better served with a clear safety standard that must be consistently applied across all antenna installations, with no ambiguity in its application or enforcement.

No party disputes SED's position that its proposed revisions to Rule 94.5-A will not have a significant financial impact. We do not find anything in the record that causes us to question SED's claim.

For the preceding reasons, we conclude that SED's proposed revisions to Rule 94.5-A are reasonable. Therefore, we will adopt the revisions. The text of the revised Rule 94.5-A is contained in Appendix C of today's decision.

We disagree with the Opponents' claim that the current text of Rule 94.5-A is clear and protects worker safety. Like SED, we find the existing Rule 94.5-A is vague. Such ambiguity is inconsistent with the purpose of Rule 94.5-A, which is to "ensure that all utility linemen in California will benefit from the protections established in the settlement."[81] The revisions to Rule 94.5-A adopted by today's decision provide the contemplated assurance.

There is no merit to the Opponents' allegation that SED's proposed revisions to Rule 94.5-A constitute a breach of the Settlement Agreement that was signed by SED's predecessor, approved by D.07-02-030, and added to GO 95 as Appendix H. The current Rule 94.5-A was not part of the Settlement Agreement.[82] SED's proposal applies only to Rule 94.5-A and does not alter Settlement Agreement in any respect.[83]

We disagree with the Opponents' claim that the Commission lacks authority to adopt SED's proposed revisions to Rule 94.5-A because the FCC has exclusive jurisdiction under federal law over matters pertaining to RF emissions. It makes no sense that the existing Rule 94.5-A is not preempted, but the revised Rule 94.5-A is preempted, as both rules are fundamentally alike in that both

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[81] D.07-02-030, at 23.

[82] The Commission adopted Rule 94.5-A *sua sponte* in D.07-02-030 in order to extend the safety benefits of the Settlement Agreement to antenna owners and pole owners who were not parties to the Settlement Agreement. (D.07-02-030 at 18 and Conclusions of Law 3 and 6.)

[83] The revisions to Rule 94.5-A adopted by today's decision do not affect the Settlement Agreement, which remains in effect.

require antenna owners to place signs on poles that alert workers to the presence of RF radiation from antennas affixed to poles.

In any event, the Commission has authority under federal law to regulate pole attachments pursuant to 47 U.S.C. § 224, to establish safety regulations for pole attachments pursuant to 47 U.S.C. § 253(b), and to regulate other terms and conditions of commercial mobile radio services pursuant to 47 U.S.C. § 332(c)(3). We conclude that the scope of the Commission's authority under these federal statutes encompasses the revisions to Rule 94.5-A adopted by today's decision.

We disagree with the Opponents that the adopted revisions to Rule 94.5-A conflict with 47 U.S.C. § 332(c)(7)(B)(iv), which states as follows:

> **47 U.S.C. 332(c)(7) Preservation of Local Zoning Authority**
>
> **(A) General Authority**
>
> Except as provided in this paragraph, nothing in this chapter shall limit or affect the authority of a State or local government or instrumentality thereof over decisions regarding the placement, construction, and modification of personal wireless service facilities.
>
> **(B) Limitations**
>
> **********
>
> (iv) No State or local government or instrumentality thereof may regulate the placement, construction, and modification of personal wireless service facilities on the basis of the environmental effects of radio frequency emissions to the extent that such facilities comply with the [FCC's] regulations concerning such emissions.

The flaw in the Opponents' argument is that 47 U.S.C 332(c)(7)(B)(iv) pertains to the siting and zoning of wireless facilities. In contrast, Rule 94.5-A is a safety regulation. The revisions to Rule 94.5-A adopted by today's decision do not affect the placement, construction, modification, or operation of wireless facilities. Nor do the adopted revisions regulate RF emissions. Rather, the adopted revisions simply require that signs be placed near antennas to alert

workers about presence of RF radiation and to provide information about exposure limits and minimum approach distances recommended by the FCC.[84] This signage requirement is consistent with the FCC's policy to encourage safety by placing signs near antennas that alert workers to presence of RF radiation and provide information about avoiding exposure to the potential hazard.[85] Hence, today's Decision does not conflict with any federal laws, regulations, or policies.

In its comments on the proposed decision, AT&T Mobility argues unpersuasively that our adopted revisions to Rule 94.5-A are prohibited by FCC 97-303 wherein the FCC held that States do not have authority under 47 U.S.C. § 332(c)(7) to regulate the operation of wireless facilities based on RF-emissions considerations.[86] Again, today's decision does not regulate the operation of wireless facilities. Rather, today's decision regulates safety pursuant to the Commission's authority under 47 U.S.C. 224, 332(c)(3), and 253(b), and Pub. Util. Code §§ 701 and 761 et seq.

3.8.4. Proposed Revisions to Rule 94.6-C (Climbing Space)

3.8.4.1 Summary of the Proposals

Rule 94.6 requires antennas to be attached to poles in a way that maintains "climbing space" for workers in accordance with Rule 54.7-A and Rule 84.7. Workers who climb poles must use fall-gear and fall-restraint equipment

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[84] Even if 47 U.S.C. 332(c)(7) does apply, States have express authority under 47 U.S.C. 332(c)(7)(A) to regulate the placement, construction, and modification of wireless facilities.

[85] 47 CFR 1.1310(e)(1). See also FCC Office of Engineering and Technology *Questions and Answers About the Biological Effects and Potential Hazards of Radio Frequency Electromagnetic Fields*. (http://transition.fcc.gov/oet/rfsafety/rf-faqs.html#Q21)

[86] AT&T Mobility Comments on the proposed decision, at 5 – 6, citing FCC 97-303, at Paragraph 89.

(together, "fall-protection gear") pursuant to regulations promulgated by the Federal Occupational Safety and Health Administration ("Federal OSHA").

The parties offered three alternative proposals for a new Rule 94.6-C regarding interference with fall-protection gear by CMRS pole attachments. The text of each proposal is reproduced below:

> **Electric IOUs' Proposed Rule 94.6-C**
>
> Unnecessary impairment of the climbing space or interference with fall restraint and fall protection equipment is not permitted by the application of Rule 54.7 or Rule 84.7.
>
> **AT&T Mobility and CTIA's Proposed Rule 94.6-C**
>
> This Rule is not intended to authorize unnecessary interference with fall restraint and fall protection equipment. Examples of obstructions that shall not be considered to interfere with fall restraint and fall protection equipment include, but are not limited to, the following:
>
> (1) Surface-mounted equipment that occupies no more than 18 inches of vertical space;
>
> (2) Equipment stood off from the pole to maintain a minimum of 4 inches of clear space between the equipment and the pole;
>
> (3) Appropriately designed and installed surface-mounted risers;
>
> (4) Obstructions detailed in Rules 54.7-A2c(3) and 84.7-A(5).
>
> **SED's Proposed Rule 94.6-C**
>
> Interference with fall restraint and fall protection equipment is not permitted by the application of Rule 54.7 or Rule 84.7.

No party anticipates that its proposal will have a significant financial or environmental impacts.

3.8.4.2 Positions of the Parties

3.8.4.2.1 Electric IOUs Proposal

The Electric IOUs' proposed Rule 94.6-C would prohibit CMRS attachments installed on joint-use poles from causing unnecessary impairment to climbing space or interference with fall-protection gear. The Electric IOUs explain that their proposal fills a gap in Federal OSHA regulations. The Electric IOUs state that although Federal OSHA requires the use of fall-protection gear, Federal OSHA does not have regulations to prevent unnecessary interference with such gear.[87]

PG&E and SCE represent that they are aware of CMRS installations on joint-use poles that interfere with fall-protection gear.[88] SDG&E is not aware of any such interference, which is to be expected because SDG&E's pole-attachment agreements prohibit such interference.

The Electric IOUs acknowledge that non-CMRS pole attachments can also interfere with fall-protection gear. In fact, SCE admits that it currently installs gear in a way that causes interference. This is not true of the other Electric IOUs, however. SDG&E asserts that its pole attachments do not interfere with fall-protection gear, and PG&E is not aware of any of its attachments interfering with fall-protection gear.

The Electric IOUs dismiss the objection raised by several parties, summarized below, that the terms "unnecessary impairment" and "unnecessary interference" in the Electric IOUs' proposed Rule 94.6-C are vague. The

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[87] The Electric IOUs cite 29 CRF §§ 1910 and 1926. PG&E and SCE state that California OSHA has not adopted fall-protection rules that mirror Federal OSHA's.

[88] The Electric IOUs point to Reference Item 1, which was distributed at the November 2014 Informational Workshop, as an example of a pole where there appears to be unnecessary interference in the climbing space.

Electric IOUs respond that these are commonly used terms that are well understood. They cite Rule 84.7(A)(5)(f) as an example, which states that "Unnecessary impairment of the climbing space is not permitted by the application of… Rule 84.7-E."

The Electric IOUs reject the Opponents' objection, summarized below, that the Electric IOUs' proposed Rule 94.6-C is discriminatory because it would apply only to CMRS attachments and, therefore, should not be addressed in this proceeding. The Electric IOUs respond that the Scoping Memo determined that proposals to prohibit unnecessary impairment of climbing space or interference with fall-protection gear are within the scope of this proceeding.[89]

The Electric IOUs' proposed Rule 94.6-C is supported by CFC and IBEW 1245. IBEW 1245 states that worker safety is degraded when large CMRS equipment is attached to the non-climbing side of a pole in a way that does not allow workers to be belted to the pole at all times while ascending or descending a pole. IBEW 1245 believes the Electric IOUs' proposed Rule 94.6-C would improve safety by requiring that CMRS pole attachments must not create problems for workers belted to the pole.

TURN takes a neutral position on the Electric IOUs' proposed Rule 94.6-C. TURN does not anticipate that the proposed rule will have substantial cost impacts on ratepayers.

The Electric IOUs' proposed Rule 94.6-C is opposed by AT&T Mobility, JVSV, CCTA, CTIA, PCIA, and SED. AT&T Mobility, CTIA, and PCIA raise several objections. First, they contend there is no demonstrated need for the rule because CMRS carriers work closely with pole owners to comply with Federal

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[89] Scoping Memo at 14.

and California OSHA requirements. The existing practice is working, according to AT&T Mobility, because none of its pole attachments interferes with fall-protection gear, to the best of AT&T Mobility's knowledge.

Second, AT&T Mobility, CTIA, and PCIA contend the Electric IOUs' proposed rule is discriminatory because it would apply only to CMRS attachments, and not to attachments by Electric IOUs, communication carriers, and CATV corporations. PCIA adds that no party has demonstrated that CMRS installations uniquely interfere with fall-protection gear. To the contrary, SCE admits that its electric utility attachments cause such interference.

Finally, AT&T Mobility and CCTA are concerned that the phrase "unnecessary impairment of climbing space or interference with fall restraint and fall protection equipment" is vague and could be used to deny access to poles.

SED agrees with the other Opponents that the Electric IOUs' proposed rule is vague, which would make the rule difficult to enforce.

3.8.4.2.2 AT&T Mobility-CTIA Proposal

AT&T Mobility and CTIA's proposed Rule 94.6-C is intended to reduce the chance that wireless attachments may interfere unnecessarily with fall-protection gear. AT&T Mobility and CTIA emphasize that their proposed rule is not an admission that CMRS attachments cause disproportionate interference. Rather, it is a good-faith effort to address unnecessary interference with respect to a subset of pole attachments (i.e., wireless attachments).

To reduce possible disputes and confusion about what constitutes "unnecessary interference" with fall-protection gear, AT&T Mobility and CTIA's proposed Rule 94.6-C includes the following examples of attachments that do not cause unnecessary interference:

1. Equipment that occupies no more than 18 inches of vertical space allows safety belts to be simultaneously placed above and below the equipment, thus ensuring that one belt can be in place at all times during climbing.
2. Equipment stood off from the pole a minimum of 4 inches allows safety belts to be placed between the equipment and the pole, and thus allows fall-protection gear to remain in place at all times during climbing.
3. Risers, if properly designed and installed, allow safety belts to be placed around them, and thus ensure that fall-protection gear can remain in place at all times during climbing.
4. The obstructions identified in Rules 54.7-A(2)(c)(3) and 84.7-A(5) are allowed in climbing space. Any attachments allowed in the climbing space should also be allowed in the area of the pole used for fall-protection gear, as belts may be placed around, above, and below these obstructions.

AT&T Mobility and CTIA's proposed Rule 94.6-C is supported by CCTA, CFC, IBEW 1245, JVSV, PCIA, and PG&E. CCTA's support is conditioned on the rule applying only to antenna installations and associated equipment.

IBEW 1245 supports the proposed rule with some reservation. Its preference would be a requirement that all attachments be stood off with brackets that allow a safety belt to be passed by hand around the pole.

PCIA agrees with AT&T Mobility and CTIA that wireless attachments do not create unique interference compared to other types of attachments. Hence, PCIA's preference is that rules prohibiting interference with fall-protection gear be addressed in a broader proceeding that applies to all pole attachments. However, if the Commission wishes to adopt a rule in this docket, PCIA supports AT&T Mobility and CTIA's proposed rule.

PG&E avers that AT&T Mobility and CTIA's proposed rule will enhance worker safety, but prefers the Electric IOUs' proposed rule because it uses the same terminology "unnecessary impairment" found in Rule 84.7-A(5)(f).

TURN takes a neutral position. TURN does not anticipate the proposed rule will have a substantial cost impact on ratepayers.

AT&T Mobility and CTIA's proposed Rule 94.6-C is opposed by SCE, SDG&E, and SED. SCE and SDG&E believe the proposed rule will cause more problems than it solves. This is because the proposed rule's non-exclusive list of exceptions has not been vetted, and the listed exceptions do not address situations where one or more excepted items, alone or in combination, could create an unsafe condition. They further argue that the proposed rule is improperly constructed because (1) the new subpart "C" is essentially inserted into existing Rule 94.6 as an exception to subparts A and B; and (2) the list of exceptions is the type of information typically presented in GO 95 in the form of a "Note." Similar notes are included in Rules 94.3 and 94.4-C.

SED states that the proposed rule is confusing and focuses on what is not required rather than what is.

3.8.4.2.3 SED Proposal

SED's proposed Rule 94.6-C would prohibit all interference with fall-protection gear by CMRS attachments that are installed in accordance with Rules 54.7 and 84.7. In contrast, the previously summarized proposals would prohibit only "unnecessary impairment."

SED's proposal is supported by CFC, IBEW 1245, and the Electric IOUs. IBEW 1245 considers SED's proposed rule to be a straightforward enhancement to worker safety that places the responsibility for noninterference with fall protection equipment squarely on the owners of attached facilities.

The Electric IOUs support SED's proposed rule, but prefer their own proposed rule because it uses the same terminology "unnecessary impairment" found in Rule 84.7-A(5)(f).

TURN takes a neutral position on SED's proposed rule. TURN does not anticipate that SED's proposed rule will have substantial costs.

SED's proposed rule is opposed by AT&T Mobility, CCTA, CTIA, JVSV, and PCIA. They assert that Federal OSHA regulations address fall-protection requirements,[90] and there has been no showing that these regulations are inadequate. Moreover, CMRS carriers work with pole owners to ensure that pole installations do not interfere with fall-protection gear. As such, SED's proposed rule is unnecessary.

The Opponents also claim that SED's proposed rule is discriminatory because it would apply only to CMRS attachments, even though attachments installed by electric utilities and others can interfere with fall-protection gear as demonstrated by the Workshop Report.[91]

Finally, the Opponents are concerned that SED's proposed rule would mandate that "interference with fall restraint and fall protection equipment is not permitted." SED's proposal lacks the qualifier "unnecessary" that is in the other proposals. Without this qualifier, SED's proposed rule might bar any CMRS attachments, as such attachments could be viewed as interfering with fall-protection gear. The Opponents assert that a complete ban on attachments is not supported by the record, which indicates that attachments of certain sizes and designs will not interfere unduly with fall-protection gear.

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[90] 29 CFR §§ 1910 and 1926.

[91] Workshop Report, at E-21 (SCE stating that certain of its pole attachments may be installed in a manner that interferes with fall-protection equipment).

3.8.4.3 Discussion

The issue before us is whether to adopt a new Rule 94.6-C that prohibits interference with climbing space and fall-protection gear by CMRS attachments. Our primary standard for deciding this issue whether a new Rule 94.6-C will enhance safety at a reasonable cost.

Currently, Rule 94.6-A requires antennas to maintain climbing space above supply lines in accordance with Rule 54.7, and Rule 94.6-B requires antennas to maintain climbing space above communication lines in accordance with Rule 84.7. There is no rule that (1) requires antennas to maintain climbing space below supply lines or communication lines, and (2) prohibits interference with fall-protection gear.

The record of this proceeding shows that Federal OSHA regulations require workers who climb a pole to be secured to the pole at all times with a safety belt. The record further shows that CMRS pole installations typically include an antenna, shut-off switch, power meter, battery backup, remote amplifiers, power cabinet, and risers that together occupy 6 to 12 feet of pole space (not including safety clearances and risers).[92] CMRS installations can obstruct climbing space and interfere with fall-protection gear.

We conclude that in order to protect the safety of workers who climb poles, it is reasonable to adopt a new Rule 94.6-C that prohibits impairment of climbing space or interference with fall-protection gear, except as allowed by GO 95. Of the three alternative proposals, only the Electric IOUs' proposed Rule 94.6-C addresses both impairment of climbing space and interference with fall-restraint equipment. We therefore adopt the Electric IOUs' proposed rule,

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[92] AT&T Mobility Informational Report (Oct. 21, 2014), at 1 - 4, 7, and 16.

but with three significant modifications. First, the Electric IOUs' proposed Rule 94.6-C states that "unnecessary" impairment or interference is not permitted. We agree with SED that the term "unnecessary" should not be included in the adopted rule. We find the term "unnecessary" is not only vague, but inconsistent with Rules 54.7 and 84.7, which do not allow obstructions of climbing space except as authorized by these rules.[93]

Second, we agree with AT&T Mobility and CTIA that in order to avoid confusion and controversy about what constitutes interference with fall-protection gear, it is helpful to include in the adopted Rule 94.6-C the examples provided by these parties of attachments that do not cause interference. However, we decline to include in the adopted rule the statement that these examples "shall not be considered to interfere" with fall-protection gear, as this might not be true in every situation. Instead, our adopted text states that the examples "may not" cause interference. Also, instead of embedding these examples in Rule 94.6-C itself, we will place the examples in a note that accompanies the rule as suggested by the Electric IOUs.[94]

Finally, we have added text to our adopted Rule 94.6-C to make it clear that the rule applies to all attachments that comprise a CMRS pole installation, not just antennas. The text of the adopted Rule 94.6-C and its accompanying note are contained in Appendix C of today's decision.

No party suggests, and we do not find, that the costs of the adopted Rule 94.6-C will be significant or exceed the rule's safety benefits.

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[93] Rules 54.7 and 84.7 both state: "Climbing space shall be maintained from the ground level." Allowable obstructions to climbing space are set forth in Rule 54.7-A(3) and Rule 84.7-A(5).

[94] One of the examples is included in the text of the adopted Rule 94.6-C, and hence there is no need to include this example in an accompanying note.

We disagree with AT&T Mobility and others that the adopted Rule 94.6-C is unnecessary because there are Federal OSHA regulations regarding the use of fall-protection gear. Today's decision relies on the representation by the Electric IOUs that there are no Federal OSHA regulations regarding interference with fall-protection gear. No party has rebutted the Electric IOUs' representation.

We reject the argument by several parties that there is no need for the adopted Rule 94.6-C. The record of this proceeding demonstrates that CMRS installations can impair climbing space and interfere with fall-protection gear.[95] The adopted rule prohibits such installations except as permitted by GO 95.

We reject the argument by several parties that the adopted Rule 94.6-C is discriminatory because it applies to CMRS attachments but not other attachments. This is simply not true with respect to interference with climbing space. Electric utilities, communication carriers, and CATV corporations are already prohibited by Rules 54.7 and 84.7 from attaching facilities that impair climbing space except as permitted by those rules. The adopted Rule 94.6-C does the same with respect to CMRS attachments.

On the other hand, there are currently no rules in GO 95 regarding interference with fall-protection gear. Furthermore, the record of this proceeding shows that at least one entity — SCE — attaches facilities to poles in a way that interferes with fall-protection gear. However, we reject the argument that it is unduly discriminatory to adopt a rule that prohibits interference with fall-protection gear by CMRS attachments when there is no rule prohibiting

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[95] The Electric IOUs provided a photograph showing CMRS equipment obstructing climbing space. (Electric IOUs' Informational Report (Oct. 21, 2014), at 28.

interference by electric utility attachments. Acceding to this argument would have the unacceptable result of allowing CMRS carriers to attach facilities that typically occupy 6 to 12 feet of pole space without regard to the interference that such facilities can create for fall-protection gear.

At the same time, we acknowledge that no pole attachments should interfere with fall-protection gear except as authorized by GO 95. However, because the scope of this proceeding is limited to CMRS installations, we cannot adopt GO 95 rules in this proceeding that extend beyond CMRS installations. Nonetheless, to ensure that the issue of interference with fall-protection gear is addressed and resolved, we will direct SED to develop a proposed rule for inclusion in GO 95 that is similar to Rule 94.6-C adopted by today's decision, but which applies to all pole installations. The proposed rule may modify or replace Rule 94.6-C adopted by today's decision.

In developing the proposed rule, SED shall confer with the GO 95 Rules Committee. SED shall submit the proposed rule within 12 months from the effective date of today's decision by filing a petition for rulemaking pursuant to Rule 6.3 of the Commission's Rules of Practice and Procedure. The petition may be filed in collaboration with other parties.

3.8.5. Proposed Revisions to Rule 94.9 (De-Energizing Protocols)

3.8.5.1 Summary of the Proposal

Rule 94.9 of GO 95 requires the owner of an antenna attached to a joint-use pole to enter into an agreement with the pole owner(s) "that includes de-energizing protocols that are substantially similar to and achieve at least the

same safety standards as those set forth in Appendix H to GO 95.[96]" Appendix H is the text of a settlement agreement (hereafter, "Settlement Agreement") that was approved by the Commission in D.07-02-030. Among other things, Appendix H establishes protocols for de-energizing antennas on a pole when necessary to perform routine or emergency work on the pole and/or other facilities attached to the pole.

SED's proposed revisions to Rule 94.9 would require antenna owners to comply with the antenna de-energizing protocols in Appendix H. The text of SED's proposed revisions to Rule 94.9 are set forth in Appendix B of today's decision. SED anticipates that its proposed revisions will have no significant financial or environmental impacts.

3.8.5.2 Positions of the Parties

SED believes the current Rule 94.9 is vague because it requires antenna de-energizing protocols to be "substantially similar to" and "achieve at least the same safety standards" as those set forth in Appendix H of GO 95. SED submits that clarifying the applicability of a rule that is intended to protect workers from exposure to RF radiation would increase safety. SED's proposal would remove ambiguity by mandating that antenna de-energizing protocols must comply with those in Appendix H.

SED's proposal is supported by CFC, IBEW 1245, and TURN. IBEW 1245 and TURN agree that the current Rule 94.9 is vague. IBEW 1245 avers that SED's proposal would align safety regulations for antennas with existing safety regulations for power lines. With respect to power lines, IBEW 1245 states there

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[96] Rule 94.9 specifies certain types of antennas that are exempt from the rule. These exemptions are not relevant to today's decision.

are no rules that allow for approximate compliance with minimum safety clearances, grounding, and de-energizing procedures. IBEW 1245 posits that similar certainty is needed for utility personnel who work in close proximity to antennas in order to prevent harmful exposure to RF radiation.

SDG&E takes a neutral position on SED's proposal. SDG&E states that because it was not a signatory to the Settlement Agreement in Appendix H of GO 95, SDG&E has developed internal standards for de-energizing antennas on its wholly owned poles that meet or exceed the requirements of Appendix H.

SED's proposal is opposed by AT&T Mobility, CCTA, CTIA, JVSV, PCIA, PG&E, and SCE (together, "the Opponents"). The Opponents' objections to SED's proposed revisions to Rule 94.9 are essentially identical to the objections that the Opponents raised against SED's proposed revisions to Rule 94.5-A (marking) that are summarized previously in today's decision. Briefly, the Opponents claim that SED has failed to demonstrate that the existing Rule 94.9 is vague or that SED's proposed revisions would improve worker safety. The Opponents also allege that SED's proposed revisions constitute a breach of the Settlement Agreement in Appendix H of GO 95 that was signed by SED's predecessor, CPSD. Lastly, the Opponents argue that SED's proposed revisions are preempted by the FCC's jurisdiction over antenna RF emissions, and that adopting SED's proposed revisions would mire the Commission in legal challenges over its jurisdiction.

3.8.5.3 Discussion

The issue before us is whether to adopt SED's proposed revisions to Rule 94.9. Our primary standard for deciding this issue is whether SED's proposal will improve safety at a reasonable cost.

The text of the current Rule 94.9 and SED's revised rule are shown below:

> **Current Rule 94.9**
>
> No antenna owner or operator shall install an antenna on a joint use pole unless such installation is subject to an agreement with the pole owner(s) that includes de-energizing protocols that are substantially similar to and achieve at least the same safety standards as those set forth in Appendix H to GO 95.
>
> **SED's Revised Rule 94.9**
>
> The de-energizing protocols in Appendix H, Exhibits B and C, to GO 95 shall be followed by antenna owners for routine and emergency working conditions respectively.

The current Rule 94.9 and SED's revised Rule 94.9 both refer to Appendix H of GO 95. Appendix H is a Settlement Agreement that was approved by the Commission in D.07-02-030. The relevant parts of Appendix H are Sections 2 and 4, and Exhibits B and C, which state as follows:

> The Settling Parties agree that, in the event any party, as a joint owner, lessee or licensee ("Antenna Owner/Operator") seeks to install or causes the installation of an Antenna (as defined in General Order (GO) 95 Rule 20.0) on a joint use utility pole, it is agreed that:
>
> **********
>
> **2. Means of De-energizing Antennas.**
>
> The Antenna Owner/Operator shall not install an Antenna on a joint use pole that emits RF energy in excess of the FCC's General Population/Uncontrolled maximum permissible exposure limits as set forth in 47 C.F.R. or effect a change to an existing Antenna site that will cause that Antenna to emit RF energy in excess of the FCC's General Population/Uncontrolled maximum permissible exposure limits as set forth in 47 C.F.R. except by providing to any other utility or company with facilities attached to the affected pole, a locally verifiable means to de-energize said Antenna. The protocols set forth in Exhibit B shall apply to non-emergency or routine working conditions. The protocols set forth in Exhibit C shall apply to emergency working conditions.

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4. Adoption of Operating Procedures.

The Settling Parties further agree to memorialize the agreements set forth in Section 1 and 2 of this Agreement (including the procedures and protocols to be adopted thereunder) in separate, private agreements with affected utilities, companies or municipalities or in the Northern California Joint Pole Association's Operating Routine. Such agreements and procedures shall be adopted in a timely manner and Settling Parties agree to execute any and all supplementary documents and take all actions which may be necessary or appropriate to give full force and effect to the terms and intent of this Agreement.

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Exhibit B: Protocol for De-Energizing Antennas in Non-Emergency or Routine Working Conditions

In the event an Antenna subject to Section 2 needs to be de-energized to perform non-emergency work, e.g., routine maintenance and/or repairs, on a joint use distribution pole, the following shall apply:

a. The utility or company shall contact the Antenna Owner/Operator (in the case of a wireless carrier they shall contact the carrier's Network Operations Center) with a minimum of twenty-four (24) hours advance notice. The following information shall be provided:
   (i) identity of the utility/company representative and call back number
   (ii) the unique identifier of the Antenna
   (iii) the site address and/or location, if available.
b. The Antenna Owner/Operator shall de-energize the Antenna at the requested time or at a time otherwise mutually agreed upon with the utility.
c. The procedures for de-energizing the subject Antenna shall provide the requesting utility or company with a satisfactory on-site means to verify the Antenna is de-energized.
d. Upon completion of the work on the site, the utility or company shall contact the Antenna Owner/Operator (in the case of a wireless

carrier, its Network Operations Center shall be contacted) to inform them that the Antenna may be re-energized.

e. The Antenna shall not be re-energized by the Antenna Owner/Operator without confirmation from the utility or company.

f. The requesting utility or company will only re-energize the Antenna with the Antenna Owner/Operator's prior written consent.

Exhibit C: Protocol for De-Energizing Antennas in Emergency Working Conditions

In the event an Antenna subject to Section 2 needs to be de-energized in emergency working conditions, i.e., in a situation where there is an imminent or actual danger to public or worker safety necessitating immediate and non-routine work on the pole, for example in direct response to a fire, explosion, lightning, storm, earthquake, vehicular accident, terrorism, or some other unanticipated and catastrophic event, the following shall apply:

a. The utility or company shall make a good faith effort to contact the Antenna Owner/Operator (in the case of a wireless carrier they shall contact the carrier's Network Operations Center). The following information shall be provided:

   (i) identity of the utility/company representative and call back number

   (ii) the unique identifier of the Antenna

   (iii) the site address and/or location, if available

   (iii) state nature of the emergency and/or site condition.

b. The Antenna Owner/Operator shall de-energize the Antenna upon request in emergency working conditions.

c. If the requesting utility or company is unable to contact the Antenna Owner/Operator, the requesting utility or company shall de-energize the subject antenna pursuant to mutually agreed upon procedures for that particular type of equipment or by using any necessary means available. The procedures for de-energizing the subject Antenna referred to above shall provide the requesting utility or company with a satisfactory on-site means to de-energize the Antenna that is verifiable.

d. Upon the completion of any necessary work to address the emergency, the utility or company shall notify the Antenna

Owner/Operator (in the case of a wireless carrier, its Network Operations Center shall be contacted) that all work has been completed so that the Antenna Owner/Operator can take any necessary actions to re-energize the site.

e. The Antenna shall not be re-energized by the Antenna Owner/Operator without confirmation from the utility or company.
f. The requesting utility or company will only re-energize the Antenna with the Antenna Owner/Operator's prior written consent.

We find that the antenna de-energizing protocols in GO 95's Appendix H provide a reasonable, clear, and enforceable regulation for protecting the safety of people working near antennas attached to utility poles. We agree with SED that the current text of Rule 94.9, which allows de-energizing protocols that are "substantially similar to and achieve at least the same safety standards as those set forth in Appendix H to GO 95," is a vague safety standard, as it allows each pole-attachment agreement to define what is "substantially similar to" and achieves "at least the same safety standards" as the de-energizing protocols in Appendix H of GO 95. Such ambiguity allows the safety standard to vary from pole to pole, across antenna owners, and over time. Ultimately, if a safety incident occurs, an after-the-fact investigation of the incident is the worst time to determine if the de-energizing protocols at issue are "substantially similar to" and "achieve at least the same safety standards" as Appendix H of GO 95. In our opinion, the public interest is better served with a clear safety standard that must be consistently applied across all antenna installations, with no ambiguity in its application or enforcement.

No party disputes SED's position that its proposed revisions to Rule 94.9 will not have a significant financial impact. We do not find anything in the record that causes us to question SED's claim.

For the preceding reasons, we conclude that SED's proposed revisions to Rule 94.9 are reasonable. Therefore, we will adopt the revisions. The text of the revised Rule 94.9 is contained in Appendix C of today's decision.

We disagree with the Opponents' claim that SED has not shown that its proposed revisions to Rule 94.9 are needed. We concur with SED that the existing Rule 94.9 is vague. Such ambiguity in Rule 94.9 is inconsistent with the purpose of Rule 94.9, which is to "ensure that all utility linemen in California will benefit from the protections established in [the Settlement Agreement contained in Appendix H of GO 95]."[97] The revisions to Rule 94.9 adopted by today's decision provide the contemplated assurance.

There is no merit to the Opponents' allegation that SED's proposed revisions to Rule 94.9 constitute a breach of the Settlement Agreement that was signed by SED's predecessor, approved by D.07-02-030, and added to GO 95 as Appendix H. The current Rule 94.9 was not part of the Settlement Agreement.[98] SED's proposal applies only to Rule 94.9 and does not alter the Settlement Agreement in any respect.[99]

We disagree with the Opponents' claim that the Commission lacks authority to adopt SED's proposed revisions to Rule 94.9 because the FCC has exclusive jurisdiction under federal law over matters pertaining to RF emissions. It makes no sense that the existing Rule 94.9 is not preempted, but the revised

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[97] D.07-02-030, at 23.

[98] The Commission adopted the current text of Rule 94.9 on its own initiative in D.07-02-030 in order to extend the substance of the Settlement Agreement to antenna owners and pole owners who were not parties to the Settlement Agreement. (D.07-02-030 at 18 and Conclusions of Law 3 and 6.)

[99] The revisions to Rule 94.9 adopted by today's decision do not affect the Settlement Agreement, which remains in effect.

Rule 94.9 is preempted, as both rules are fundamentally alike in that both require antenna owners to establish antenna de-energizing protocols with the owners of other facilities attached to the same pole as an antenna.

In any event, the Commission has authority under federal law to regulate pole attachments pursuant to 47 U.S.C. § 224, to establish safety regulations for pole attachments pursuant to 47 U.S.C. § 253(b), and to regulate other terms and conditions of commercial mobile radio services pursuant to 47 U.S.C. § 332(c)(3). We conclude that the scope of the Commission's authority under these federal statutes encompasses the revisions to Rule 94.9 adopted by today's decision.

We disagree with the Opponents that the adopted revisions to Rule 94.9 conflict with 47 U.S.C. § 332(c)(7)(B)(iv), which states as follows:

> **47 U.S.C. 332(c)(7) Preservation of Local Zoning Authority**
>
> **(A) General Authority**
>
> Except as provided in this paragraph, nothing in this chapter shall limit or affect the authority of a State or local government or instrumentality thereof over decisions regarding the placement, construction, and modification of personal wireless service facilities.
>
> **(B) Limitations**
>
> **********
>
> (iv) No State or local government or instrumentality thereof may regulate the placement, construction, and modification of personal wireless service facilities on the basis of the environmental effects of radio frequency emissions to the extent that such facilities comply with the [FCC's] regulations concerning such emissions.

The flaw in the Opponents' argument is that 47 U.S.C. 332(c)(7)(B)(iv) pertains to the siting and zoning of wireless facilities. In contrast, Rule 94.9 is a safety regulation, not a siting or zoning regulation. The revisions to Rule 94.9 adopted by today's decision do not affect the placement, construction, modification, or operation of wireless facilities. Nor do the adopted revisions

regulate RF emissions. Rather, the adopted revisions simply require that protocols be established to turn off power to antennas when necessary to protect the safety of people working on utility poles with attached antennas.[100] This safety requirement is consistent with the FCC's suggestion that exposure to RF radiation that exceeds FCC guidelines may be controlled by "reducing or shutting off power when work is required in a high RF area.[101]" Hence, today's Decision does not conflict with any federal laws, regulations, or policies.

In its comments on the proposed decision, AT&T Mobility argues unpersuasively that our adopted revisions to Rule 94.9 are prohibited by FCC 97-303 wherein the FCC held that States do not have authority under 47 U.S.C. § 332(c)(7) to regulate the operation of wireless facilities based on RF-emissions considerations.[102] Again, today's decision does not regulate the operation of wireless facilities. Rather, today's decision regulates safety pursuant to the Commission's authority under 47 U.S.C. 224, 332(c)(3), and 253(b), and Pub. Util. Code §§ 701 and 761 et seq.

3.8.6. Proposed New Rule 94.10 (Pad Mounting)

3.8.6.1 Summary of the Proposal

SED's proposed Rule 94.10 would require antenna-related equipment that increases loads on a pole to be placed off the pole in a pad-mounted structure, except that such equipment may be attached to a pole upon a showing of good

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[100] Even if 47 U.S.C. 332(c)(7) does apply, States have authority under 47 U.S.C. 332(c)(7)(A) to regulate the placement, construction, and modification of wireless facilities.

[101] FCC Office of Engineering and Technology Bulletin 65, issued in 1997, at page 56. (https://transition.fcc.gov/Bureaus/Engineering_Technology/Documents/bulletins/oet65/oet65.pdf)

[102] AT&T Mobility Comments on the proposed decision, at 5 – 6, citing FCC 97-303, at Paragraph 89.

cause. SED does not know if its proposed rule will have significant costs. SED does not anticipate significant environmental impacts. The text of SED's proposed Rule 94.10 is contained in Appendix B of today's decision.

3.8.6.2 Positions of the Parties

SED states that attaching large antenna-related equipment to utility poles can obstruct climbing space and overload poles. In light of these safety hazards, SED recommends that, without good cause, CMRS equipment (other than antennas) should be kept off poles and placed in pad-mounted structures.

SED recognizes that GO 95 already includes rules that prohibit obstruction of climbing space and overloaded poles. SED believes its proposed Rule 94.10 would further reduce the possibility of these unsafe conditions by moving CMRS equipment off poles. SED also recognizes that pad-mounted structures have their own safety issues. Nevertheless, SED believes that pad-mounted installations are generally safer than pole-mounted installations, especially in light of what SED asserts is a widespread problem of already overloaded poles.

SED disputes the assertion by several Opponents, summarized below, that SED's proposed Rule 94.10 may not be feasible in local jurisdictions with zoning ordinances that require pad-mounted structures to be placed underground or undergo a costly permit process for surface placement. SED responds that its proposed Rule 94.10 explicitly contemplates that there may be good cause to install antenna-related equipment on utility poles.

SED acknowledges the concerns voiced by several Opponents, summarized below, that the phrase "without good cause" in SED's proposed Rule 94.10 is vague. SED responds that it is willing to replace this phrase with "where practicable," so that Rule 94.10 would read as follows:

> Where practicable, any equipment that is associated with an antenna that increases loading on a pole shall be installed in a pad-mounted structure.

SED notes that the word "practicable" is defined in GO 95, Rule 22.7, as "capable of being accomplished by reasonably available and economic means."

SED disagrees with AT&T Mobility and CTIA's claim, summarized below, that SED's proposed rule is unnecessary because CMRS equipment does not add significant loads to poles compared to other pole attachments. SED responds that as part of its work in this proceeding, it did a survey of poles and found that CMRS equipment is usually the largest and heaviest equipment on poles.

SED also disagrees with AT&T Mobility and CTIA's claim, summarized below, that SED's proposed rule is unnecessary because GO 95 already has rules that prohibit overloaded poles. SED responds that overloaded poles are commonplace when local wind conditions are taken into account. SED's proposed Rule 94.10 addresses this safety hazard by minimizing additional installations on already overloaded poles.

IBEW 1245 supports SED's proposed Rule 94.10 because it will decrease congestion on poles and thereby enhance worker safety. IBEW 1245 also notes that CMRS equipment is typically installed on the lower part of poles, which increases the risk that large trucks will clip the equipment while turning corners. This could not only damage the CMRS equipment, but the pole as well.

SDG&E sees no need for SED's proposed rule, but SDG&E nonetheless takes a neutral position on the proposed rule. The following parties oppose the rule: AT&T Mobility, CCTA, CFC, CTIA, JVSV, PCIA, PG&E, SCE, and TURN (together, "the Opponents"). Several of the Opponents state that SED has not identified any safety incidents that show its proposed Rule 94.10 is needed. Most of the Opponents believe SED's proposed rule is unnecessary because existing

GO 95 rules (1) require a pole-loading calculation before CMRS equipment is attached to a pole in most cases; (2) prohibit attachments that overload poles; and (3) prohibit obstruction of climbing space.

Another flaw with SED's proposed rule, according to AT&T Mobility and CTIA, is that CMRS equipment usually adds less load to a pole compared to electric utility, telephone, and CATV pole attachments. Consequently, if there is a problem with overloaded poles as alleged by SED, its proposed Rule 94.10 would do little to rectify the problem. Moreover, because SED's proposed rule would affect only CMRS pole attachments, despite other attachments also adding load to poles, the rule is discriminatory.

Many of the Opponents are concerned that SED's proposed Rule 94.10 would prohibit CMRS equipment (other than antennas) on poles "without good cause." These Opponents state that it is difficult to place CMRS equipment somewhere other than poles because local ordinances often discourage pad-mounted equipment, especially on sidewalks.

AT&T Mobility opines that the Americans with Disabilities Act may apply to surface-mounted pads, which could add costs and prevent surface mounted pads altogether in some circumstances. CTIA believes that a requirement for pad-mounting may have significant environmental effects, despite SED's position to the contrary.

The Opponents are also concerned about how the "without good cause" provision in SED's proposed Rule 94.10 would be interpreted. TURN states that it is unclear what constitutes "good cause" or who would make that determination. PCIA opines that the term "without good cause" leaves room for pole owners to unreasonably require CMRS equipment to be pad mounted.

Most Opponents argue that SED's proposal to mandate pad-mounting for CMRS equipment (other than antennas) would itself create safety hazards. Among other things, pad-mounted equipment is more vulnerable to vandalism and illegal shut-offs, which could negatively affect public safety. Also, vehicle collisions with utility poles is a well-known safety hazard, and pad-mounted equipment would exacerbate the hazard. TURN foresees the possibility that pad-mounted equipment might pose an obstacle to people with disabilities.

Several Opponents note that SED failed to perform a cost-benefit analysis of its proposed rule. Based on prior experience, AT&T Mobility and CTIA estimate that a requirement to pad-mount equipment would increase the cost of each antenna installation by thousands of dollars. In AT&T Mobility and CTIA's opinion, the costs of SED's proposed rule exceed its benefits.[103]

SCE states that if the goal is to keep CMRS equipment (other than antennas) off joint-use poles, SED's proposed Rule 94.10 should not restrict CMRS equipment to pad-mounted structures. One alternative is to install CMRS equipment on stub (short) poles located adjacent to the utility pole supporting the CMRS antenna.

3.8.6.3 Discussion

The issue before us is whether to adopt SED's proposed Rule 94.10. Our primary standard for deciding this issue is whether SED's proposal will improve safety at a reasonable cost.

SED's proposed Rule 94.10 reads as follows:

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[103] CTIA cites the City of Los Angeles Above Grade Facilities ("AGF") Ordinance. Under this ordinance, an application that includes a pedestal requires a preliminary review by multiple City agencies prior to submitting the application for the AGF Permit. CTIA represents that the application process takes 4 to 6 months if there is minimal substantive public opposition.

> **SED's Proposed New Rule 94.10**
>
> Without good cause, any equipment that is associated with an antenna that increases loading on a pole shall be installed in a pad-mounted structure.[104]

Because all equipment associated with antennas adds weight and wind load to a pole, SED's proposed Rule 94.10 would require all CMRS equipment (other than antennas) to be placed in pad-mounted structures, unless there is good cause to install the equipment on a pole.

SED asserts that its proposed Rule 94.10 is needed to prevent large CMRS equipment from obstructing climbing space on poles and overloading poles. However, Rule 94.6-A already requires CMRS installations to maintain climbing space above supply lines, and Rule 94.6-B requires CMRS installations to maintain climbing space above communication lines. Rule 94.6-C adopted by today's decision requires CMRS installations to maintain climbing space along the entire length of the pole. Similarly, Rules 12.2, 31.1, and 44 - 48 already prohibit overloaded poles. We believe that compliance with GO 95 (as modified by today's decision) is sufficient to ensure that CMRS installations do not obstruct climbing space or overload poles.

SED asserts that the existing rules are insufficient because overloaded poles are commonplace when foreseeable windstorms are taken into account. However, SED did not provide any data to support its claim. To the extent there are poles that are susceptible to failure in foreseeable windstorms, Rule 31.1 of GO 95 prohibits CMRS installations on such poles. Rule 31.1 states:

> Electrical supply and communication systems shall be designed, constructed, and maintained for their intended use, **regard being**

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[104] SED is willing to replace the phrase with "without good cause" in its proposed Rule 94.10 with the phrase "where practicable."

> **given to the conditions under which they are to be operated, to enable the furnishing of safe, proper, and adequate service**.
>
> For all particulars not specified in these rules, design, construction, and maintenance should be done in accordance with accepted good practice **for the given local conditions** known at the time by those responsible for the design, construction, or maintenance of communication or supply lines and equipment.
>
> A supply or communications company is in compliance with this rule if it designs, constructs, and maintains a facility in accordance with the particulars specified in General Order 95, except that **if an intended use or known local conditions require a higher standard than the particulars specified in General Order 95 to enable the furnishing of safe, proper, and adequate service, the company shall follow the higher standard**.
>
> For all particulars not specified in General Order 95, a supply or communications company is in compliance with this rule if it designs, constructs and maintains a facility in accordance with accepted good practice for the intended use and known local conditions. (Emphasis added.)

Rule 31.1 requires CMRS installations to be designed, built, and maintained based on known local conditions. If a utility pole cannot safely support a CMRS installation during foreseeable windstorms, the installation is prohibited by Rule 31.1. Both the CMRS carrier and the pole owner(s) are responsible for ensuring compliance with Rule 31.1. We believe the appropriate remedy for overloaded poles is to vigorously enforce Rule 31.1, rather than adopting a new rule that would make it difficult for CMRS carriers to attach equipment (other than antennas) to poles that are not overloaded.

We disagree with SED's position that its proposed Rule 94.10 is justified, in part, by the significant loads that CMRS installations impose on poles. The record demonstrates that CMRS installations do not impose disproportionate loads on poles. In fact, the CMRS equipment that would be subject to SED's

proposed rule generally imposes less wind load than most pole attachments.[105] Moreover, Rule 44.2 requires that a pole loading calculation be performed for any CMRS attachment that would materially increase the load on the structure. If the calculation shows that the pole is not strong enough to support the CMRS installation, then the pole will have to be reinforced or replaced before the CMRS installation can go forward.

It is also unclear if SED's proposed Rule 94.10 would enhance safety. The proposed rule would require pad mounting when a pole has sufficient load capacity to safely support CMRS equipment. This could diminish safety because placing CMRS equipment in pad-mounted structures has its own safety risks. As noted by the Opponents, pad-mounted CMRS equipment is more vulnerable to vandalism and illegal shut-offs, resulting in disrupted access to 911. In addition, pad-mounted equipment placed alongside streets is a hazard to vehicles, just as utility poles are a hazard to vehicles. Pad-mounted equipment can also pose an obstacle to people with disabilities, which can be hazardous in some situations.

Although the overall safety benefits of SED's proposed Rule 94.10 are uncertain, it is clear that the proposed rule will be costly to implement. There are significant costs associated with pad-mounted equipment. As noted by the Opponents, local jurisdictions oftentimes require applicants for pad-mounted structures to attempt to place the structure underground.[106] Underground construction is typically much more expensive than pole-mounted installations.

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[105] AT&T Mobility Informational Report (Dec. 5, 2014), at 1 – 7, and Appendices H and I; CCTA-JVSV Informational Report (Dec. 5, 2014), at 3; PG&E Informational Report (Dec. 5, 2014), Attachment 3, at pp. 1-3; SDG&E Informational Report (Dec. 5, 2014), at pp. B-1 through B-3; SCE Informational Report (Dec. 5, 2014), at pp. C-2 and C-3; and TURN Comments (Dec. 19, 2014), at 7- 8.

[106] Workshop Report (April 7, 2015), at E-43.

Even if the CMRS equipment does not have to be placed underground, surface mounted structures need to connect to the pole-mounted antenna and backhaul communication cable, thus generating costs for trenching, asphalt repair, concrete sidewalk repair, and/or parkway restoration. Local jurisdictions routinely require additional fees to review, inspect, and permit underground or surface-mounted structures.[107] Altogether, CMRS carriers can expend significant time and money to first obtain approval from local jurisdictions for pad-mounted equipment, and then to build the pad-mounted structure.

SED did not provide a cost estimate for its proposed rule.[108] Based on the previous discussion, we conclude that the cost of pad-mounting CMRS equipment is significantly more than pole installations.

Beyond safety and cost issues, SED's proposed Rule 94.10 is problematic because it would establish a two-tiered system where CMRS equipment (other than antennas) is not allowed on poles "without good cause," while CLEC and CATV facilities are allowed. This is contrary to the ROW Rules and 47 U.S.C. § 224(f), both of which establish a right to attach to utility poles absent reasons of safety, reliability, or generally applicable engineering purposes.[109]

For preceding reasons, we decline to adopt SED's proposed Rule 94.10.

3.8.7. Proposed New Rule 94.11 and New Rule 94.3-C(1) (Pole Embedment)

3.8.7.1 Summary of the Proposals

A utility pole must be embedded deep enough in the supporting soil to prevent the pole from overturning from strong winds, tension from the attached

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[107] CTIA Comments (April 17, 2015), at 20 – 21.

[108] Workshop Report (April 7, 2015), at E-41.

[109] OIR 14-05-001, at 19.

wires and cables, and other loads. GO 95 at Rule 49.1-C, Table 6, specifies the minimum depths for poles that are set in firm soil. For example, Table 6 specifies a minimum depth of 6 feet for a 45-foot pole in firm soil, and 6½ feet for a 50-foot pole in firm soil. Where the soil is not firm, Rule 49.1-C requires deeper settings or other special methods to be used.

Antennas may be attached to the top of utility poles with extensions that provide the necessary safety clearance from power lines. SED proposes a new Rule 94.11 that would require a pole-top extension to be added to the length of a pole when determining the setting depth required by Rule 49.1-C. As an alternative to SED's proposed rule, PG&E proposes a new Rule 94.3-C(1) which would require that "consideration… be given to affirm the overturning moment is not exceeded" when a pole-top extension is installed on a pole. And in a completely opposite approach to SED's proposal, PG&E's proposed Rule 94.3-C(1) would prohibit a pole-top extension from being added to the length of a pole when determining the setting depth required by Rule 49.1-C.

The text of SED's and PG&E's proposed rules are contained in Appendix B of today's decision. SED does not believe its proposed rule will have significant financial or environmental impacts. Likewise, PG&E does not believe its proposed rule will have significant financial or environmental impacts.

3.8.7.2 Positions of the Parties

3.8.7.2.1 Proposed Rule 94.11

The basis for SED's proposed Rule 94.11 is straightforward: A pole-top extension increases a pole's length and therefore increases the pole's risk of overturning. SED's proposed rule would ensure that poles with pole-top antennas are set at a depth that complies with Rule 49.1-C in order to minimize the risk of overturning and consequent fires, electrocutions, and outages.

The proposed rule is not a new requirement, according to SED. Rather, it clarifies an existing requirement that poles must be set at a depth that is proportional to pole length, including pole-top extensions. As such, the proposed rule should not increase costs unless the existing requirement has been misapplied. To the extent there are increased costs, SED believes the costs are justified by the public safety benefits of the new rule.

SED acknowledges that the safety issue addressed by its proposed rule is not unique to CMRS facilities. However, because the scope of this proceeding is limited to CMRS installations, SED's proposed rule is likewise limited to CMRS installations. SED recommends expanding its proposed rule to include all pole-top facilities in future Commission proceedings.

No party expressed support for SED's proposed Rule 94.11. The following parties take a neutral position: CFC, IBEW 1245, and TURN. IBEW 1245 believes that SED's proposed rule would all but eliminate CMRS pole-top installations. This would be a welcome outcome, in IBEW 1245's opinion, because it would make pole tops safer for those who work in close proximity to high-voltage power lines already located at pole tops.

TURN agrees with SED that adding a pole-top extension to an existing pole will increase the overturning moment. The question for TURN is whether the increased overturning moment justifies a rule requiring deeper pole burial depths. To help answer this question, TURN notes that Rule 49.1-C, Table 6, shows that for poles between 35 feet and 55 feet long, each 5 feet of added pole length adds just 6 inches to the required pole depth.

TURN is not convinced that CMRS carriers should be forced to set a pole six inches deeper when a 5-foot pole-top extension is added, as it seems like a lot of cost and effort for little safety benefit. TURN suggests that a better approach

might be to recalculate the pole overturning moment assuming the addition of the pole-top extension, but without increasing the pole burial depth. TURN does not take a position on the appropriate safety factor for the calculation.

SED's proposed Rule 94.11 is opposed by AT&T Mobility, CCTA, CTIA, JVSV, PCIA, and the Electric IOUs. The Opponents state that SED did not provide any evidence of overturned poles or engineering analysis to support its proposed rule. On the other hand, several of the Opponents note that the Electric IOUs attach conductors to pole tops using insulated hardware that can extend several feet above the pole top. The Opponents are not aware of any instances where an Electric IOU's pole-top attachments have caused a pole to overturn. Because of this, the Opponents believe it is unnecessary to require poles with CMRS pole-top attachments to be set deeper than poles with Electric IOU pole-top attachments.

Several Opponents, including AT&T Mobility, CTIA, and PCIA, assert that electric utility pole-top attachments impose a much greater overturning moment than CMRS pole-top antennas. These Opponents argue that it would be unlawfully discriminatory to impose a stricter standard for pole-burial depth for CMRS pole-top attachments compared to electric utility pole-top attachments.

The Opponents assert that SED's proposed rule is unnecessary from an engineering perspective because a pole that is set at the depth specified in Rule 49.1-C, Table 6, can safely accept new pole-top attachments, without resetting the pole to a deeper depth (provided that no other conditions are present that may warrant a deeper setting, such as soft soils or unbalanced loads). The Opponents explain that when a pole is first set, the soil has a calculated capacity to resist pole overturning (overturning moment). So long as

the pole – with all attachments -- stays within the calculated overturning moment, there is no safety hazard.

Several Opponents provided illustrative calculations that purport to show that the setting depth required by Rule 49.1-C, Table 6, is more than sufficient to prevent a pole from overturning when a pole-top extension is added to the pole. These same illustrative calculations also purport to show that for poles with pole-top extensions, wind loads will always break a pole at the ground line before the pole overturns. These illustrative calculations purportedly demonstrate that there is negligible risk that a pole will overturn, and that requiring poles to be set deeper will not enhance safety to a meaningful degree.

CCTA provided tables and graphs that purport to show that extending the length of a pole with a pole-top extension actually produces a slight improvement in the pole's ability to resist overturning. The reason for this counterintuitive result, CCTA explains, is that as a pole gets taller, the increase in the overturning moment is offset by a decrease in the allowed horizontal force (i.e., design load) at the pole top that is used to calculate the overturning moment. At the same time, the decreased in the allowed horizontal force also reduces the shear stress that contributes to the overturning moment.

The Electric IOUs note there are methods to cope with the increased overturning moment caused by a pole-top extension besides increasing a pole's burial depth. These methods include adding guy wires and shortening conductor spans. The Electric IOUs submit that utilities should not be limited to one solution as would occur under SED's proposed rule.

The Opponents are also concerned that re-setting an existing pole to a deeper depth can create its own safety risks by (1) reducing the ground clearances of the existing attachments, and (2) resulting in a thinner pole at the

ground line (because wood poles are tapered) with less strength to resist bending moments. The Opponents argue that SED has not demonstrated that the safety benefits of its proposed rule, if any, exceed the potential safety hazards.

Finally, the Opponents assert that if SED's proposal is approved, the cost to install pole-top antennas would be prohibitive in many instances due to the high cost to re-set poles deeper. This would frustrate State and federal polices to encourage investment in wireless broadband infrastructure.

3.8.7.2.2 Proposed Rule 94.3-C(1)

PG&E states that GO 95 is silent on the treatment of pole-top extensions as they relate to the setting depth of a pole. PG&E's proposed Rule 94.3-C(1) is intended to clarify that a pole-top extension should not be added to the length of the pole when determining the setting depth required by Rule 49.1-C. The proposed rule further clarifies that the additional overturning moment of a pole-top antenna must be considered to ensure that the pole does not overturn.

PG&E's proposed rule is supported by CFC, IBEW 1245, SCE, and SDG&E. SCE and SDG&E support PG&E's proposed rule as an alternate to SED's proposed rule, but SCE and SDG&E prefer that neither rule be adopted.

TURN takes a neutral position on PG&E's proposed rule. TURN states that PG&E's proposal would rely on overturning calculations instead of forcing utilities to re-set poles that have pole-top antennas. In TURN's opinion, PG&E's proposed rule is inadequate because the provision that "consideration shall be given" to overturning is too vague. If the Commission adopts any rule on this issue, TURN recommends that the adopted rule specify a minimum safety factor for the overturning moment. TURN's neutral position assumes that the "consideration shall be given" language is revised to remove the vagueness. Otherwise, TURN would oppose PG&E's proposed rule.

The following parties oppose PG&E's proposed Rule 94.3-C(1): AT&T Mobility, CCTA, CTIA, JVSV, PCIA, and SED. In general, the Opponents other than SED assert there is no evidence that pole-top attachments are causing poles to overturn; the "consideration" required by PG&E's proposed rule is undefined and subject to arbitrary application by pole owners; and the rule is discriminatory because it would apply only to CMRS pole-top attachments. SED agrees that PG&E's proposed rule is too vague.

3.8.7.3 Discussion

We first address SED's proposed Rule 94.11 followed by PG&E's proposed Rule 94.3-C(1). In deciding whether to adopt either rule, our primary standard is whether the proposed rule will enhance safety at a reasonable cost.

3.8.7.3.1 Proposed Rule 94.11

Rule 49.1-C requires poles embedded in firm soil to be set at the depths listed in Table 6. SED's proposed Rule 94.11 would require an antenna's pole-top extension to be added to the length of the host pole when determining the pole's setting depth required by Rule 49.1-C and Table 6. The premise of SED's proposed rule is that the depths specified in Table 6 will not adequately protect against pole overturning when a pole-top extension is attached to a pole.

To assess the merits of SED's proposed rule, we have prepared the following table that shows an illustrative calculation of the overturning moments of a pole before and after a pole-top extension is attached to the pole:

	Pole Overturning Moment and Bending Moment **45-Foot Wood Pole Embedded 6 Feet in Soil per Rule 49.1-C, Table 6** **(Class 4, Douglas Fir Pole)**		
Row	**Forces and Moments**	**Without Pole-Top Extension**	**With 7-Foot Pole-Top Extension**
1	Overturning Force 2 Feet Below Pole Top: • RUS Equation 12.1 • Soil Condition = Average. • Soil Constant = 70	1,485 Pounds	1,259 Pounds
2	Overturning Moment at Ground Line (Safety Factor = 1.0)	54,953 Foot Pounds	55,411 Foot Pounds
3	Bending Moment of New Wood Pole at Ground Line (Safety Factor = 1.0)	90,552 Foot Pounds	90,552 Foot Pounds

Before delving into the above table, we wish to acknowledge the fundamental safety issue raised by SED that a pole-top extension increases a pole's overturning moment. We concur with the premise of SED's proposed Rule 94.11 that a pole-top extension should not be allowed on a pole unless sufficient measures have been taken to ensure that the pole will not overturn.

Rows 1 and 2 of the above table show that a 45-foot wood pole, without a pole-top extension, embedded 6 feet in average soil pursuant to Rule 49.1-C, Table 6, will overturn when a horizontal force of 1,485 pounds is applied 2 feet from the top of the pole (i.e., 37 feet above ground level), which equates to an overturning moment of 54,953 foot-pounds (fp.) at the pole's ground line.[110] Rows 1 and 2 of the above table further show that a 45-foot wood pole with a 7-foot pole-top extension, when embedded 6 feet in average soil, will overturn

[110] The derivation of all figures in the above table is provided in Appendix E of today's decision.

when a horizontal force of 1,259 pounds is applied 2 feet from the top of the combined structure (i.e., 44 feet above ground level), which equates to an overturning moment of 55,411 fp. at the pole's ground line.

The above table shows that the key to protecting public safety is to ensure that the overturning moment for a pole does not exceed the soil's ability to withstand the overturning moment ("pole overturning moment"). In the above table, the soil can withstand a pole overturning moment of 54,953 fp. at the pole's ground line when no pole-top extension is attached, and 55,411 fp. when a pole-top extension is attached. Both of these figures assume a safety factor of 1.0.

We conclude that public safety will be protected when a pole-top extension is installed on an existing pole that is embedded at the minimum depth required by Rule 49.1-C, without resetting the pole to a deeper depth, provided that the combined structure (pole + all attachments) does not exceed the pole's overturning moment. The above table provides a simple example for making this determination. In practice, calculation of the pole overturning moment will have to incorporate all elements of the structure, including the pole, pole-top extension, antenna(s), power lines, cross arms, transformers, communication lines, and all other attachments. The pole overturning calculation will also have to reflect the actual soil conditions, which may differ considerably from the soil conditions used in the above table.[111]

For the above reasons, we decline to adopt the text of SED's proposed Rule 94.11, which would mandate that a pole with a pole-top extension be set deeper. As stated previously, public safety will be protected as long as the

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[111] Soil conditions may range from loose sand and marshy soil, to solid rock and urban concrete.

combined structure (pole + all attachments) does not exceed the pole's overturning moment. We also agree with the Electric IOUs that SED's proposed rule is too narrow in how it deals with the increased overturning moment caused by a pole-top antenna. As noted by the Electric IOUs, there are other methods to cope with increased overturning moments besides deeper settings, such as attaching guy wires.

The only way to know if the installation of a pole-top antenna and ancillary attachments will cause the combined structure (pole + all attachments) to exceed the pole's overturning moment is to perform an overturning calculation. Therefore, to protect public safety, we will adopt a new Rule 94.11 that requires a pole overturning calculation before a pole-top antenna installation is placed on a pole to ensure that the pole overturning moment is not exceeded.

GO 95 requires overhead utility structures to be designed, built, and constructed with specified safety factors. Consistent with GO 95, we conclude that an appropriate safety factor should be used to determine the allowable overturning moment for poles with pole-top antenna installations. GO 95 does not specify a safety factor for the pole overturning moment, but it does provide some guidance. In particular, GO 95 prescribes the following safety factors for "foundations against depression":

Safety Factors for Foundations Against Depression GO 95, Rule 44.1, Table 4			
	Grades of Construction		
	Grade A	**Grade B**	**Grade C**
Safety Factor	3.0	2.0	2.0

The GO 95 safety factor for "foundations against depression" is intended to ensure that a utility pole (or other structure) does not sink into the supporting

soil. We conclude that the existing safety factor for soil depression is appropriate for the allowable pole overturning moment. Accordingly, safety factors of 3.0 (Grade A construction) and 2.0 (Grades B and C construction) shall be used to determine the allowable pole overturning moment for a planned pole-top antenna installation. After the installation, the safety factor for the pole's allowable overturning moment shall comply with Rule 44.3.[112]

The text of the adopted Rule 94.11 is contained in Appendix C of today's decision. We expect that CMRS carriers and pole owners will incur little additional costs to implement the adopted Rule 94.11. The overturning calculation is simple to perform, and all the information needed for the calculation is already available[113] or readily obtained.[114] In situations where a planned pole-top installation does not meet the minimum safety factor for the pole overturning moment adopted by today's decision, the CMRS carrier may use the most cost-effective means to achieve the minimum safety factor, such as

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[112] Rule 44.3 states, "Lines or parts thereof shall be replaced or reinforced before safety factors have been reduced (due to factors such as deterioration and/or installation of additional facilities) in Grades 'A' and 'B' construction to less than two-thirds of the safety factors specified in Rule 44.1 and in Grade 'C' construction to less than one-half of the safety factors specified in Rule 44.1… In no case shall the application of this rule be held to permit the use of structures or any member of any structure with a safety factor less than one."

[113] The variables for the overturning calculation are the pole dimensions, pole burial depth, and soil constant. Pole owners should know the dimensions and burial depths of their poles. They should also have a reasonable estimate of the soil constant (e.g., a soil constant of 70 for average soil and 110 for good soil) because Rule 49.1-C requires pole owners to assess soil condition when determining the required depth of every new pole. Rule 44.4 requires pole owners to cooperate with the entity performing the overturning calculation.

[114] The Electric IOUs determine setting depth based on pole height, soil conditions, and calculated overturning moment. (Workshop Report (April 7, 2015), at G-2.) If the pole owner does not have information regarding the soil condition for a particular pole, the CMRS carrier should be able to obtain such information independently at a reasonable cost, as the utility industry has more than a century's worth of experience in identifying and assessing soil conditions in relation to pole burial depths.

attaching guy wires, setting the pole deeper, or placing the installation on a different pole.[115] To the extent there are additional costs, we conclude that such costs are more than offset by the public safety benefits of ensuring that pole-top antenna installations do not place poles at risk for overturning.

Several parties suggest that it is not necessary to calculate the allowable pole overturning moment because GO 95 requires a calculation of the allowable bending moment. According to these parties, a pole will always break (bending moment) before a pole overturns (pole overturning moment). Thus, if a pole with all of its attachments is within the allowable bending moment, the pole is automatically within the allowable pole overturning moment.[116]

We disagree with this reasoning. The above table shows that a new 45-foot wood pole (Grade A, Class 4, Douglas Fir) embedded 6 feet in average soil will break when the bending moment reaches 90,552 fp. at the ground line. The above table further shows that the same pole with a 7-foot pole-top extension will topple when overturning moment reaches 55,411 fp., which is significantly less than the bending moment.[117] From this information, we find that calculating

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[115] AT&T Mobility suggests that soil conditions are adequate in most situations to meet the minimum safety factor for the pole overturning moment adopted by today's decision. (AT&T Mobility Comments (April 17, 2015), at 20 -21; and AT&T Mobility Reply Comments (April 24, 2015), at 10 – 11.) PCIA agrees. (PCIA Reply Comments (April 17, 2015, at 10 - 11.) This is consistent with the overturning calculations submitted by PG&E and SDG&E (Workshop Report (April 7, 2015), Appendix H, at H-2 and H-6), which indicate there are many existing poles that can accommodate a pole-top antenna installation and achieve the minimum safety factors for the pole overturning moment adopted by today's decision.

[116] See, e.g., CCTA Comments (April 17, 2015), at 9 – 11; and AT&T Mobility Reply Comments (April 24, 2015), at 11 – 12.

[117] The Workshop Report shows that a 45-foot pole (without a pole-top extension) embedded 6 feet in soil, with a soil constant of 110, has an allowable bending moment of 22,638 fp. with a safety factor of 4.0, and an allowable overturning moment of 21,589 fp. with a safety factor of 4.0. (Workshop Report (April 7, 2015), Appendix H, at H-3 and H-8.)

the allowable bending moment for a pole will not ensure that the pole is within the allowable overturning moment.[118]

We disagree with the argument raised by AT&T Mobility and other parties that the adopted Rule 94.11 is unduly discriminatory because it applies only to wireless pole-top installations. It is indisputable that pole-top antennas increase the overturning moment. Acceding to AT&T Mobility's position would have the unacceptable result of allowing CMRS carriers to install pole-top antennas without regard to the increased risk of overturning caused by such attachments.

At the same time, we recognize that all pole-top installations increase the risk of overturning, not just wireless pole-top installations. However, the scope of this proceeding is limited to CMRS carriers and installations. Consequently, we cannot adopt GO 95 rules in this proceeding that extend beyond CMRS installations. Nonetheless, to ensure that the increased overturning risks associated with pole-top attachments are addressed and resolved, we will direct SED to develop a proposed rule for inclusion in GO 95 that is similar to Rule 94.11 adopted by today's decision, but which applies to all pole-top installations. The proposed rule may modify or replace Rule 94.11 adopted by today's decision, and may apply to facilities other than pole-top installations.

In developing the proposed rule, SED shall confer with the GO 95 Rules Committee. SED shall submit the proposed rule within 12 months from the effective date of today's decision by filing a petition for rulemaking pursuant to

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[118] Today's decision does not suggest that the allowable overturning moment is always less than the allowable bending moment. The allowable overturning moment depends on the strength of the supporting soil, how deeply the pole is buried, and the diameter and taper of the pole. There are likely many poles that have an allowable overturning moment that exceeds the allowable bending moment.

Rule 6.3 of the Commission's Rules of Practice and Procedure. The petition may be filed in collaboration with other parties.

In its comments on the proposed decision, AT&T Mobility expresses surprise that today's Decision would require an overturning calculation to determine if a pole is set deeply enough to safely support a CMRS pole-top attachment. According to AT&T, this calculation "was not specially proposed by any party to the proceeding, and… parties have not had an opportunity… to comment on its appropriateness.[119]" In reality, the record of this proceeding includes overturning calculations submitted by the Electric IOUs.[120] AT&T Mobility relied on these overturning calculations to argue that SED's proposed Rule 94.11 is unnecessary.[121] Today's decision adopts TURN's suggestion that overturning calculations can safely substitute for a blanket and costly requirement to reset poles.[122]

We disagree with AT&T Mobility's and CCTA's comments on the proposed decision that there is no evidence that requiring an overturning calculation will enhance safety.[123] CTIA correctly notes that the record of this proceeding demonstrates that an overturning calculation is key to ensuring that a pole is set deep enough to safely support a pole-top attachment:

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[119] AT&T Comments on the proposed decision (Nov. 19, 2015), at 6.

[120] Workshop Report (April 7, 2015), Appendix H; and Electric IOUs' Comments (April 17, 2015), Attachments 1, 2, and 3.

[121] AT&T Comments (April 17, 2015), at 20; and AT&T Reply Comments (April 24, 2015), at 11.

[122] TURN Comments (April 17, 2015), at 7. ("Perhaps a better approach would be to recalculate the pole safety factor assuming addition of the pole extension and new antenna, but without increasing pole burial depth.")

[123] AT&T Comments on the proposed decision (Nov. 19, 2015), at 6; and CCTA Comments on the proposed decision (Nov. 19, 2015), at 10.

> As explained in AT&T's and CCTA's Opening Comments [filed on April 7, 2015], and as illustrated through the calculations supplied by the Electric IOUs in the Workshop Report, the key elements in determining whether the pole is set at a sufficient depth for the attachment are the nature of the soil *(i.e.,* the soil resistance) and the calculated bending/overturning moment. (CTIA Reply Comments (April 24, 2015), at 10. Footnotes omitted.)

The overturning calculation required by today's Decision will ensure that the pole is set at a sufficient depth (or other measures are taken) based on the nature of the soil and the calculated overturning moment.

3.8.7.3.2 Proposed Rule 94.3-C(1)

We decline to adopt PG&E's proposed Rule 94.3-C(1), which would (1) prohibit a pole-top extension from being added to the length of a pole when determining the pole-setting depth required by Rule 49.1-C; and (2) require that when a pole-top extension for an antenna is installed, "consideration shall be given to affirm the overturning moment is not exceeded."

We reject the first part of PG&E's proposed rule that would prohibit a pole-top extension from being added to the length of a pole when determining the pole-setting depth required by Rule 49.1-C. We fail to see how this could enhance safety. As such, it is outside the scope of this proceeding.

We agree to some extent with the second part of PG&E's proposed rule that "consideration shall be given to affirm the overturning moment is not exceeded" when a pole-top antenna is added to a pole. However, it is not clear what is intended by the term "consideration." This defect is not in the Rule 94.11 adopted by today's decision, which identifies the specific steps that must be taken to ensure that the allowed pole overturning moment is not exceeded.

3.8.8. Proposed New Rule 94.12 (Personnel Access to Pole-Top Antennas)

3.8.8.1 Summary of the Proposal

SED's proposed Rule 94.12 would require that all elements of a pole-top antenna installation that are placed above supply lines be installed, maintained, or physically accessed by employees of the owner of the supply system, its contractors, or other qualified electrical workers that are authorized by the owner of the supply system. The text of SED's proposed Rule 94.12 is contained in Appendix B of today's decision.

SED did not perform an economic or cost-benefit analysis of its proposed Rule 94.12. SED does not anticipate that its proposed rule will have any significant environmental impacts.

3.8.8.2 Positions of the Parties

The purpose of SED's proposed Rule 94.12 is to ensure that only qualified electrical workers perform work on CMRS facilities above supply lines. SED believes that because electric utility employees and contractors are well qualified to perform work in the dangerous environment near supply lines, safety would be enhanced if all work on wireless facilities above supply lines were performed by employees and contractors of the electric utility that owns the supply lines.

SED's proposed rule is supported by CFC, IBEW 1245, and TURN. IBEW 1245 states that the proposed rule would codify the long-standing safety practice that only authorized and properly trained personnel can work in proximity to supply lines. TURN believes the proposed rule would promote safe working practices near supply lines. TURN does not anticipate that SED's proposed rule will have substantial cost impacts on ratepayers.

SED's proposed Rule 94.11 is opposed by AT&T Mobility, CCTA, CTIA, JVSV, PCIA, and the Electric IOUs. The Opponents contend there is no need for

the proposed rule because there is no evidence that unqualified personnel are accessing areas above supply lines. The Opponents other than the Electric IOUs are also concerned that SED's proposed rule does not require the owner of the supply system (the electric utility) to grant reasonable requests for its employees and contractors to perform work above supply lines. Thus, the proposed rule is subject to unreasonable administration by electric utilities. These same Opponents also assert that the safety issue addressed by SED's proposed rule is not unique to CMRS facilities, as only qualified workers should access the area above supply lines, regardless of their reason for access. As a result, SED's proposed rule is discriminatory.

SCE and SDG&E's main concern is that SED's proposed rule would shift legal responsibility for the personnel and contractors who work on pole-top antennas from the owners of such antennas to the Electric IOUs. SCE and SDG&E further contend that restricting access to pole-top antennas to qualified electrical workers is in direct conflict with Cal-OSHA regulations that allow Qualified Telecommunications Workers to work in the vicinity of energized supply lines, with certain safety restrictions such as minimum approach distances. Thus, it is unlikely that SED's proposal, if adopted, could be enforced.

3.8.8.3 Discussion

The issue before us is whether to adopt SED's proposed Rule 94.12. Our primary standard for deciding this issue is whether SED's proposal will improve safety at a reasonable cost.

SED's proposed Rule 94.12 would require that all work on wireless facilities installed above supply lines be performed by employees of the owner of the supply system, its contractors, or other qualified electrical workers that are authorized by the owner of the supply system. All parties agree that working in

close proximity to energized supply lines is dangerous, and that only qualified personnel and contractors should perform such work.

Currently, most work on CMRS facilities above supply lines is performed by CMRS carriers. The record of this proceeding shows that the employees and contractors of CMRS carriers who work in close proximity to supply lines possess all the qualifications necessary to perform such work safely.[124] There is no information in the record of this proceeding which shows that safety would be enhanced if the owners of supply lines, rather than the CMRS carriers, were responsible for vetting and authorizing the personnel and contractors who work on CMRS facilities above supply lines.

We agree with the Electric IOUs that SED's proposed rule could make the owners of the supply system liable for accidents or negligence associated with the personnel and contractors who work on CMRS facilities above supply lines. This outcome would shift risks and costs from the CMRS carriers to the electric utilities and their customers.

For the preceding reasons, we decline to adopt the text of SED's proposed Rule 94.12. Nevertheless, we agree with the fundamental safety principle which underlies SED's proposed rule that only qualified personnel should work on CMRS facilities above supply lines. All parties agree with this principle. Surprisingly, there is no rule in GO 95 that explicitly embodies this principle.

To protect worker safety, we will adopt a new Rule 94.12 which states that only personnel who are properly qualified may work on wireless facilities above supply lines. The text of the adopted Rule 94.12 is contained in Appendix C of today's decision. Because the adopted rule is consistent with current practice,

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[124] AT&T Mobility Comments (July 7, 2014), at 10 – 13 and Attachment 3.

the rule should not result in additional costs for CMRS carriers or the owners of supply lines.

Although the adopted Rule 94.12 applies only to wireless facilities, this is not discriminatory. The ROW Rules adopted by today's decision will make it easier for CMRS carriers to install wireless facilities above supply lines. The public interest requires that we take precautions in today's decision to ensure that all work on CMRS facilities in the dangerous environment above supply lines is performed by personnel and contractors who are properly qualified.

3.8.9. Data Base of Pole Attachments

During the workshops, the Electric IOUs suggested that a centralized data base of all poles, pole attachments, and load calculations be established, and that all entities with pole attachments should be required to self-report their attachments to the data base administrator.[125]

Parties were invited to submit comments on the Electric IOUs' suggested centralized data base of pole attachments.[126] CCTA and TURN support the concept, but recommend that this matter be considered in future proceedings. AT&T Mobility, CTIA, and PCIA did not address the merits of a data base. They recommend that the Commission consider this matter in a future proceeding, if at all. The Electric IOUs' comments were silent on the need for a centralized data base of pole attachments.

We decline to address the topic of a centralized data base for pole attachments any further in today's decision, as it is does not have a clear nexus with the scope of this proceeding. If the Electric IOUs believe this matter

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[125] Workshop Report (April 7, 2015), at J-10, 11, 13, and 19.

[126] Workshop Report (April 7, 2015), at 8 – 9.

warrants further attention from the Commission, an appropriate procedure would be for the Electric IOUs – in collaboration with SED, the GO 95 Rules Committee, Joint Pole Owner Associations, and other interested parties - to develop a proposed regulation and then seek approval of the proposed regulation through a petition for rulemaking.

3.9. Implementation of the New and Revised GO 95 Rules

SED shall revise GO 95 to incorporate the adopted amendments and publish the revised GO 95 on the Commission's website within 60 days from the effective date of today's decision. The adopted amendments include all ministerial changes to GO 95 that are necessary to integrate the new and amended rules adopted by today's decision, including (1) revised pagination, (2) revised list of changed rules, and (3) revised tables of content.

To implement the adopted revisions to GO 95, affected entities may need to develop and deploy new procedures, manuals, and data bases, and to train personnel. To provide adequate time for implementation, the adopted revisions to GO 95 shall become operative 60 days from the effective date of today's decision. Public utilities and CMRS carriers may implement the adopted revisions sooner.

4. California Environmental Quality Act

The California Environmental Quality Act (CEQA)[127] applies to any project that has a potential for resulting in a direct physical change in the environment or a reasonably foreseeable indirect physical change in the environment unless the project is exempt from CEQA by statute or regulation.[128] The Commission is

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[127] CEQA is codified in Cal. Pub. Res. Code § 21000 et seq.

[128] 14 Cal. Code Regs., Section 15378.

the lead agency under CEQA with respect to the regulations adopted by today's decision. We find that all of the adopted regulations are exempt from CEQA pursuant to one or more of the following statutory exemptions or categorical exemptions in the CEQA guidelines:

- The adopted regulations allow for the operation, repair, or maintenance of existing public utility facilities, and involves negligible or no expansion of an existing authorized use.[129] (14 Cal. Code Regs., Section 15301(b).)
- The adopted regulations involve the addition of safety or health protection devices for use during construction of or in conjunction with existing structures, facilities, or mechanical equipment, or topographical features. (14 Cal. Code Regs., Section 15301(f).)
- The adopted regulations involve the replacement or reconstruction of existing public utility systems and/or facilities involving negligible or no expansion of capacity. (14 Cal. Code Regs., Section 15302(c).)
- The adopted regulations involve the construction and location of limited numbers of new, small facilities or structures, including electrical and other utility extensions. (14 Cal. Code Regs., Section 15303(d).)
- The adopted regulations involve the establishment, modification or approval of rates or other charges for the purpose of (A) meeting operating expenses, including employee wage rates and fringe benefits, (B) purchasing or leasing supplies, equipment, or materials, (C) meeting financial reserve needs and requirements, or (D) obtaining funds for capital projects necessary to maintain service within existing service areas. (Pub. Res. Code § 21080(b)(8).)
- The adopted regulations will not have a potentially significant impact on the environment and is therefore not a "project" as

[129] CMRS carriers have an existing right under federal laws and regulations to obtain nondiscriminatory access to public utility infrastructure.

defined by Pub. Res. Code § 21065 and 14 Cal. Code Regs., Section 15378(a).

5. Comments on the Proposed Decision

The proposed decision of the assigned Commissioner in this matter was mailed to the parties in accordance with Section 311 of the Public Utilities Code, and comments were allowed pursuant to Rule 14.3 of the Commission's Rules of Practice and Procedure. Comments were filed on November 19, 2015, by AT&T Mobility, CCTA, CTIA, Mobilitie LLC, the Electric IOUs, PCIA, SED, and TURN. Reply comments were filed on November 24, 2015, by AT&T Mobility, CTIA, the Electric IOUs, PCIA, SED, and TURN.

In response to the comments on the proposed decision, the final decision incorporates the following revisions:

- In Section 3.2.3.3 of today's decision, the first sentence is revised to delete the statement that TURN had proposed applying the 7.4% per-foot fee to pole-top antennas in a manner similar to the Electric IOUs' proposal.
- In Section 3.2.3.5, Footnote 48 is revised to include additional citations to the record of this proceeding.
- In Section 3.2.3.8, the contents of the petition for rulemaking that CLECs and CATV corporations are encouraged to file (to extend the ROW Rules to wireless facilities installed by CLECs and CATV corporations) is revised as follows:
  - The requirement for the petition to address the Commission's authority to apply and enforce its ROW Rules with respect to CATV corporations that possess a state-video franchise is deleted.
  - A requirement is added that the petition should address the Commission's authority to apply and enforce its ROW Rules and safety regulations with respect to CATV corporations' wireless facilities in light of the Commission's conclusion in D.15-05-002 that the term

"cable" in Pub. Util. Code § 216.4 does not include satellites and other forms of wireless transmission.

- In Section 3.3, the definition of "CMRS carrier" in the ROW Rules is expanded to include an entity that holds a current Commission-issued certificate of public convenience and necessity that authorizes the holder to provide CMRS. Conforming changes are made to the text of the ROW Rules in Appendix A of today's decision.
- In Section 3.7, the date that the adopted revisions to the ROW Rules go into effect is revised from immediately to 120 days after the date of today's decision. Conforming changes are made to Conclusion of Law 5 and Ordering Paragraph 1.
- In Section 3.8, a statement is added that the Commission has authority to adopt safety regulations for CMRS pole attachments pursuant to Pub. Util. Code §§ 701 and 761 et seq. This statement is reflected in new Conclusion of Law 22.
- The following revisions are made to Section 3.8.2.3:
  - The words "assumptions" and "estimates" are replaced with "conservative values" and/or "industry recognized values."
  - Text is added at several places which states that SED's proposed Rule 94.3 is denied based on the record of this proceeding.
  - A brief discussion is added that explains why D.15-11-021 does not provide a factual basis to adopt SED's proposed Rule 94.3-D.
  - A statement is added that a utility's decision to use conservative values in load calculations should always result in equal or greater safety compared to using actual specifications in load calculations. If this is not the case, the utility must use actual specifications.
  - The deadline is extended from nine months to 12 months for SED to either (1) file a petition for rulemaking to revise Rule 44.2; or (2) serve notice that SED concludes that no changes to Rule 44.2 are necessary.

- The following revisions are made to Section 3.8.3.3:
  - A statement is added that the revisions to Rule 94.5-A adopted by today's decision do not affect the operation of wireless facilities. Conforming changes are made to re-numbered Conclusion of Law 30.
  - A statement is added that the revisions to Rule 94.5-A adopted by today's decision do not conflict with any federal laws, regulations, or policies.
  - Discussion is added that refutes AT&T Mobility's argument that the revisions to Rule 94.5-A adopted by today's decision are prohibited by FCC 97-303.
- In Section 3.8.4.3, the deadline for SED to submit a petition for rulemaking to adopt a rule regarding interference with fall-protection gear is extended from nine months to 12 months. Conforming changes are made to re-numbered Conclusion of Law 33 and to Ordering Paragraph 5.v.
- The following revisions are made to Section 3.8.5.3:
  - A statement is added that the revisions to Rule 94.9 adopted by today's decision do not affect the operation of wireless facilities. Conforming changes are made to re-numbered Conclusion of Law 30.
  - A statement is added that the revisions to Rule 94.9 adopted by today's decision do not conflict with any federal laws, regulations, or policies.
  - Discussion is added that refutes AT&T Mobility's argument that the revisions to Rule 94.9 adopted by today's decision are prohibited by FCC 97-303.
- The following revisions are made to Section 3.8.7.3.1:
  - The discussion regarding the cost of performing pole overturning calculations is revised.
  - The deadline for SED to submit a petition for rulemaking to adopt a rule regarding pole overturning calculations is extended from nine months to 12 months. Conforming changes are made to re-numbered Conclusion of Law 36 and to Ordering Paragraph 5.v.

  - Discussion is added that refutes AT&T Mobility's argument that there is no record to support the adopted requirement to perform overturning calculations for CMRS pole-top attachments.
- In Section 3.8.8.3, the adopted Rule 94.12 is revised to delete the requirement that personnel who access wireless facilities above supply lines must be properly authorized. Conforming changes are made to the adopted Rule 94.12 in Appendix C of today's decision.
- In Appendix C, the text of the adopted Rule 94.11 is revised so that the "purpose" of the overturning calculation is placed in a note immediately following Rule 94.11.
- Several typographical errors, spelling errors, and other errors are corrected.

6. Assignment of the Proceeding

Liane M. Randolph is the assigned Commissioner for this proceeding and Timothy Kenney is the assigned Administrative Law Judge.

Findings of Fact

1. The ROW Rules adopted by D.98-10-058 provide CLECs and CATV corporations with nondiscriminatory access to public utility infrastructure at reasonable rates, terms, and conditions.

2. The demand for wireless services is increasing rapidly. Most Californians use wireless service as their primary means for communicating with one another, accessing the internet, and calling 911.

3. Investment in wireless infrastructure provides significant public benefits, including more reliable wireless service, expanded geographic coverage, greater deployment of broadband service, and enhanced public safety.

4. Access to wireless services is essential for the prosperity and well-being of California residents.

5. Enabling CMRS carriers to obtain nondiscriminatory access to public utility infrastructure will facilitate investment in wireless infrastructure and thereby help to achieve the State of California's ambitious goals for telecommunications services, particularly broadband. Conversely, the inability of CMRS carriers to obtain nondiscriminatory access may limit and deter investments by CMRS carriers to the detriment of California.

6. The ROW Rules allow public utilities to levy a make-ready charge on CLEC and CATV attachments. There are no characteristics of CMRS attachments that indicate a different make-ready charge should apply to CMRS attachments compared to CLEC and CATV attachments.

7. The ROW Rules allow public utilities to charge an annual attachment fee for use of their support structures other than poles by CLECs and CATV corporations. This fee is equal to the percentage of the support structure's volume or capacity that is used by the attachment multiplied by the public utility's annual cost-of-ownership for the support structure.

8. There are no characteristics of CMRS attachments that indicate a different annual attachment fee should apply to CMRS attachments compared to CLEC and CATV attachments for the use of support structures other than poles.

9. The annual attachment fee prescribed by the ROW Rules for the use of utility poles is $2.50 or 7.4% of the public utility's annual cost-of-ownership for the pole and supporting anchor, whichever is greater. As a practical matter, the 7.4% annual fee is always greater than $2.50.

10. The ROW Rule's 7.4% annual pole-attachment fee is based on a hypothetical 37.5-foot utility pole with 13.5 feet of usable space for all pole attachments. The 7.4% annual fee presumes that a CLEC or CATV pole installation occupies one foot of the 13.5 feet of usable space (i.e., 7.4% = 1 ÷ 13.5).

11. The vast majority of CLEC and CATV pole installations consist of a single wireline attachment that occupies one vertical foot of pole space, including the mandatory safety clearances for such installations.

12. A typical CMRS installation on a utility pole includes an antenna and ancillary attachments that together can occupy 6 to 12 feet of pole space. The mandatory safety clearances required by GO 95 for CMRS antennas can occupy additional pole space.

13. Because CMRS pole installations typically occupy much more pole space than CLEC and CATV pole attachments, CMRS attachments are differently situated from CLEC and CATV attachments with respect to the 7.4% "per pole" attachment fee in the ROW Rules.

14. Applying the 7.4% fee on a per-foot basis to CMRS pole attachments, while the existing 7.4% per-pole fee remains in effect for CLEC and CATV attachments, produces a nondiscriminatory outcome because each attachment will be charged an annual 7.4% fee proportionate to the pole space occupied by an attachment.

15. The amount of pole space that a CMRS attachment renders unusable for non-CMRS attachments incudes the pole space that is physically occupied by the CMRS attachment, plus any pole space that must be kept vacant of communication and/or supply conductors due solely to the CMRS attachment.

16. Pole-top antennas do not impose a disproportionate load on poles compared to CLEC and CATV pole attachments.

17. The charges and fees adopted by today's decision for CMRS attachments provide the owners of public utility infrastructure with a reasonable opportunity to recover all of their costs associated with CMRS attachments.

18. Multiple CMRS attachments may occupy the same vertical pole space (on different sides of the pole), provided the attachments comply with applicable GO 95 rules on safety clearances, climbing space, and other matters.

19. Most CMRS pole installations include attachments in a pole's common space. The vast majority of CLEC and CATV pole installations do not include attachments in the common space.

20. CMRS attachments in a pole's common space impose an opportunity cost on pole owners and other attachers. Because a pole has finite space and load-bearing capacity, the pole space and load-bearing capacity that is devoted to CMRS attachments in the common space detracts from the common space available to other attachers, and detracts from the load-bearing capacity available to other attachments anywhere on the pole.

21. The rapidly growing CMRS industry routinely places pole attachments in the common space. Consequently, there is no meaningful distinction between usable space and common space on poles for CMRS installations. The entire pole is potentially usable space for CMRS pole installations.

22. If the 7.4% per-foot attachment fee adopted by today's decision were applied to the space occupied by every attachment on a pole, the revenues from the fee could exceed 100% of a pole's cost-of-ownership in some cases.

23. It is not necessary or feasible to devise a pole-attachment fee for the conduits and risers associated with a CMRS pole installation.

24. The electric utility meter for a CMRS pole installation is owned by the electric utility that supplies power to the CMRS installation. The electric utility may choose to place the meter on the pole, in a pad-mounted structure, or other location that is convenient for the electric utility.

25. Prohibiting antennas on guard arms, as set forth in the consensus proposed Rule 21.0-D and Rule 87.7-B, will enhance safety by (i) keeping guard arms free of clutter; and (ii) preventing unnecessary or unexpected exposure to RF radiation to workers who ascend/descend utility poles.

26. The requirement in current Rule 94.5-A that signs which alert workers to the presence of RF radiation shall be "substantially similar to and achieve at least the same safety standards as those in Appendix H to GO 95" is a vague safety standard. Such ambiguity allows the safety standard to vary from pole to pole, across antenna owners, and over time.

27. SED's proposed revisions to Rule 94.5-A would require antennas to be marked in accordance with Appendix H of GO 95. The marking requirement in Appendix H is a reasonable, clear, and enforceable regulation for protecting the safety of people working near antennas attached to utility support structures.

28. CMRS pole attachments can degrade worker safety by obstructing climbing space and interfering with workers' fall-protection gear.

29. There are currently no rules in GO 95 that prohibit CMRS attachments from obstructing climbing space or interfering with fall-protection gear along the entire length of a pole.

30. Of the three alternatives for a proposed Rule 94.6-C, only the Electric IOUs' addresses both obstruction of climbing space and interference with fall-protection gear by CMRS attachments.

31. AT&T Mobility and CTIA's proposed Rule 94.6-C provides examples of CMRS attachments that may not interfere with fall- protection gear. Adding these examples to the Rule 94.6-C adopted by today's decision would provide helpful guidance for interpreting the rule.

32. SCE attaches electric utility facilities to poles in a way that interferes with workers' use of fall-protection gear.

33. The requirement in the current Rule 94.9 that antenna de-energizing protocols must be "substantially similar to and achieve at least the same safety standards as those set forth in Appendix H to GO 95" is a vague safety standard. Such ambiguity allows the safety standard to vary from pole to pole, across antenna owners, and over time.

34. SED's proposed revisions to Rule 94.9 would require antenna owners to comply with the de-energizing protocols in Appendix H of GO 95. The antenna de-energizing protocols in Appendix H constitute a reasonable, clear, and enforceable regulation for protecting the safety of people working near antennas.

35. An existing pole embedded at the minimum depth required by Rule 49.1-C, Table 6, can safely accommodate the addition of a pole-top antenna, without requiring the pole to be embedded deeper, if the pole's allowed overturning moment, with safety factors, is not exceeded.

36. GO 95 does not require a pole overturning calculation or specify safety factors for a pole's allowed overturning moment.

37. Depending on soil conditions, transverse loads may cause a pole to overturn before the pole breaks at the pole's ground line.

38. Public safety is placed at risk if a pole-top antenna is added to a pole without first determining if foreseeable transverse loads on the combined structure (pole + all attachments) will cause the structure to overturn.

39. The space above supply lines is a dangerous working environment.

40. CMRS carriers have the necessary expertise to safely install, maintain, and access CMRS facilities above supply lines.

41. The costs to CMRS carriers and pole owners to implement the adopted amendments to the ROW Rules and GO 95 will be insignificant relative to their revenues. The safety benefits of the adopted revisions to GO 95 exceed the costs of the revisions.

42. The proposed revisions to GO 95 that are not adopted by today's decision would (i) not enhance safety of a meaningful degree; (ii) create new safety hazards; (iii) prohibit CMRS pole attachments in situations where such attachments are safe; and/or (iv) result in costs that exceed the safety benefits.

Conclusions of Law

1. A public utility is required by 47 U.S.C. § 224(f) and FCC 11-50 to provide CMRS carriers with nondiscriminatory access to any pole, duct, conduit, or right-of-way (together, "utility infrastructure") owned or controlled by the utility, except in situations where a utility cannot provide access because of insufficient capacity or for reasons of safety, reliability, or engineering principles.

2. Pursuant to 47 U.S.C. § 224(c)(1), States may preempt the FCC's regulation of nondiscriminatory access to utility infrastructure if specified conditions are met. In D.98-10-058, the Commission (i) adopted rules for nondiscriminatory access; (ii) asserted State preemption of FCC regulation of nondiscriminatory access in California pursuant to 47 U.S.C. §§ 224(c)(1); and (iii) certified to the FCC that the Commission had satisfied the conditions in 47 U.S.C. § 224(c) for preemption of FCC regulation.

3. The ROW Rules adopted by D.98-10-058 for nondiscriminatory access to utility infrastructure do not apply to CMRS carriers.

4. It is in the public interest to amend the ROW Rules to apply to CMRS carriers in a manner that provides just and reasonable fees for CMRS attachments, protects worker and public safety, and preserves the reliability of co-located utility facilities. The amended ROW Rules in Appendix A of today's decision meet these criteria and should be adopted.

5. In accordance with Rule 6.3(a) of the Commission's Rules of Practice and Procedure, the adopted revisions to the ROW Rules should apply prospectively beginning 120 days after the effective date of the following Order.

6. Except as set forth in the following conclusions of law, the ROW Rules should apply without modification to CMRS carriers.

7. Applying the ROW Rule's 7.4% "per-pole" attachment fee to CMRS installations would unduly benefit CMRS pole attachments and unfairly discriminate against CLEC and CATV pole attachments. Under this pricing scheme, CMRS installations would generally pay far less for the pole space they occupy than CLEC and CATV installations.

8. In order to establish nondiscriminatory pricing for CLEC, CATV, and CMRS pole attachments as required by the ROW Rules, the 7.4% pole-attachment fee adopted by D.98-10-058 should apply to each foot of vertical pole space that a CMRS installation renders unusable for non-CMRS attachments. This is similar in concept to how the annual attachment fee is determined under the ROW Rules for utility support structures other than poles.

9. As contemplated by federal law and FCC regulations, the adopted 7.4% per-foot fee for CMRS installations (as limited by today's decision) is based on the space occupied by the attachment and the number of attaching entities on the pole, together with reasonable make-ready fees. As required by

47 U.S.C. § 253(a), today's decision does not prohibit the ability of CMRS carriers to provide any interstate or intrastate telecommunications service.

10. Applying the 7.4% fee on a per-foot basis to CMRS attachments, versus a per-pole basis for CLEC and CATV attachments, does not violate any federal laws or regulations.

11. The 7.4% per-foot attachment fee should apply to CMRS attachments in the pole's common space.

12. The 7.4% per-foot attachment fee should apply only once to each foot of vertical pole space. If multiple CMRS pole attachments are placed on different sides of a pole in the same horizontal plane, the 7.4% attachment fee should be allocated equally to each CMRS attachment in the same horizontal plane.

13. It is not discriminatory to apply the 7.4% attachment fee to CMRS attachments in the common space, but not to CLEC and CATV attachments in the common space. Most CMRS pole installations include attachments in the common space, while the vast majority of CLEC and CATV pole installations do not. Thus, CMRS pole installations are differently situated with respect to attachments in the common space.

14. Because attachments in a pole's common space are a significant proportion of all CMRS pole attachments, while the vast majority of CLEC and CATV pole attachments are in the usable space, it would be discriminatory to exempt a significant proportion of CMRS attachments from the 7.4% attachment fee when almost all CLEC and CATV attachments are subject to the fee.

15. Applying the 7.4% attachment fee to CMRS attachments in a pole's common space is consistent with D.98-10-058 wherein the Commission held that CLEC attachments that occupy more pole space than CATV attachments, or which otherwise encumber property to a greater degree than CATV attachments,

may be charged a larger pole-attachment fee than CATV attachments. Likewise, CMRS pole installations occupy far more pole space than CATV (and CLEC) installations, and may therefore be charged a larger pole-attachment fee than CATV (and CLEC) installations.

16. The purpose of the 7.4% attachment fee embodied in the ROW Rules is to ensure that attachers pay a reasonable and proportionate share of a pole's cost-of-ownership. The fee is not meant to provide pole owners with revenues that exceed their cost-of-ownership for a pole.

17. The total pole-attachment fee for all components of a CMRS installation should not exceed 100% of the pole's cost-of-ownership, less the proportion of the pole's cost-of-ownership that is allocable to the pole space occupied by all other attachments on the pole, including pole-owner attachments.

18. The pole-attachment fee of 7.4% per foot should apply to CMRS installations until 14 feet of pole space is occupied by all pole attachments. When more than 14 feet of pole space is occupied by all attachments, the 7.4% per-foot fee for CMRS attachments should be adjusted as described in the previous Conclusion of Law.

19. The 7.4% attachment fee should not apply to conduits, risers, and electric utility meters that are attached to a pole as part of a CMRS installation.

20. Cost-of-service public utilities should record attachment fees for CMRS facilities as Other Operating Revenues, and record make-ready charges as either Other Operating Revenue or contributed plant, depending on whether the utility's make-ready expenditures are expensed or capitalized.

21. The amended ROW Rules adopted by today's decision comply with 47 U.S.C. §§ 224(c)(2) and (3). Today's decision constitutes certification to the FCC of this Commission's assertion of jurisdiction to regulate the rates, terms, and conditions of access to poles, ducts, conduits, and rights-of-way by CMRS carriers.

22. The Commission has authority to adopt safety regulations for CMRS pole attachments pursuant to Pub. Util. Code §§ 701 and 761 et seq.

23. It is in the public interest to adopt the revisions to GO 95 that are contained in Appendix C of today's decision for the reasons set forth in the body of this decision, Findings of Fact, and Conclusions of Law.

24. SED should (i) amend GO 95 to incorporate (a) the revisions to GO 95 adopted by this decision, and (b) any ministerial changes to GO 95 that are necessary to integrate the adopted revisions to GO 95; and (ii) publish the amended GO 95 on the Commission's website within 60 days from the effective date of the following Order.

25. GO 95 and Pub. Util. Code § 451 prohibit pole overloading. Both pole owners and pole attachers have an affirmative duty to prevent any pole attachments that would cause, or exacerbate, pole overloading.

26. Rule 44.2 defines "material increase "in load as "an addition which increases the load on a structure by more than five percent per installation, or ten percent over a 12-month span, of the electric utility's or Communication Infrastructure Provider's current load." The rule does not address situations where (i) an increase in load of less than 5% would overload the pole; and (ii) an increase in load of less than 10% over a 12-month span would overload the pole.

27. SED should evaluate whether Rule 44.2's definition of "material increase" needs to be revised. As part of its evaluation, SED should confer with the GO 95

Rules Committee. After SED's evaluation is complete, SED should either (i) file a petition for rulemaking pursuant to Rule 6.3 of the Commission's Rules of Practice and Procedure to revise Rule 44.2; or (ii) file and serve notice that SED concludes, as a result if its evaluation, that no changes to Rule 44.2 are necessary.

28. SED's proposed revisions to Rule 94.5-A and Rule 94.9 do not constitute a breach of the Settlement Agreement that was signed by SED's predecessor, approved by D.07-02-030, and added to GO 95 as Appendix H.

29. The Commission has authority under federal law to regulate pole attachments pursuant to 47 U.S.C. § 224, to establish safety regulations for pole attachments pursuant to 47 U.S.C. § 253(b), and to regulate other terms and conditions of commercial mobile radio services pursuant to 47 U.S.C. § 332(c)(3). The scope of the Commission's authority under these federal statutes encompasses the revisions to Rules 94.5-A and 94.9 adopted by today's decision.

30. Rules 94.5-A and 94.9 are safety regulations, not siting or zoning regulations. The revisions to Rule 94.5-A and Rule 94.9 adopted by today's decision do not (i) affect the placement, construction, modification, or operation of wireless facilities, or (ii) regulate RF emissions.

31. The adopted Rule 94.6-C does not treat CMRS attachments differently than non-CMRS attachments with respect to obstruction of climbing space.

32. CMRS installations are differently situated than most other pole attachments with respect to interference with fall- protection gear because, unlike most pole attachments, CMRS installations typically occupy several feet of pole space and will cause significant interference with fall-protection gear unless measures are taken to prevent such interference.

33. SED should develop a proposed rule for inclusion in GO 95 that is similar to new Rule 94.6-C adopted by this Order with respect to interference with

fall-protection gear, but which applies to all pole attachments. SED's proposed rule may modify or replace Rule 94.6-C adopted by this Order. In developing the proposed rule, SED should confer with the GO 95 Rules Committee. SED should submit the proposed rule within 12 months from the effective date of the following Order by filing a petition for rulemaking pursuant to Rule 6.3 of the Commission's Rules of Practice and Procedure.

34. To protect public safety, a pole overturning calculation should be performed before a pole-top antenna is attached to a pole.

35. To protect public safety, the allowed pole overturning moment for the initial installation of a pole-top antenna should use a safety factor of 3.0 for Grade A poles, and a safety factor of 2.0 for Grade B and Grade C poles. After the installation of the pole-top antenna, the safety factor for the pole structure's overturning moment should comply with Rule 44.3.

36. SED should develop a proposed GO 95 rule that is similar to Rule 94.11 adopted by today's decision, but which applies to all pole-top installations. The proposed rule may modify or replace Rule 94.11 adopted by today's decision, and may apply to facilities other than pole-top installations. In developing the proposed rule, SED should confer with the GO 95 Rules Committee. SED should submit the proposed rule within 12 months from the effective date of the following Order by filing a petition for rulemaking pursuant to Rule 6.3 of the Commission's Rules of Practice and Procedure.

37. The regulations adopted by today's decision are exempt from CEQA pursuant to one or more of the statutory exemptions or categorical exemptions identified in the body of this decision.

38. The following Order should be effective immediately so that the public may benefit expeditiously from the amended ROW Rules and GO 95 safety regulations adopted by the Order.

O R D E R

IT IS ORDERED that:

1. The revised Right-of-Way Rules (ROW Rules) in Appendix A of this decision are adopted. The adopted revisions to the ROW Rules shall apply prospectively beginning 120 days after the effective date of this Order, stated below. The adopted revisions to the ROW Rules do not apply to the contractual rates, terms, and conditions for existing Commercial Mobile Radio Service installations.

2. Cost-of-service public utilities shall record attachment fees for Commercial Mobile Radio Service (CMRS) facilities as Other Operating Revenues; record make-ready charges for CMRS facilities as Other Operating Revenue if the utility's associated make-ready costs are expensed; and record make-ready charges for CMRS facilities as contributed plant if the utility's associated make-ready costs are capitalized.

3. General Order (GO) 95 is revised to include the new and amended rules in Appendix C of this decision. The Commission's Safety and Enforcement Division shall revise GO 95 to incorporate the new and amended rules, and publish the revised GO 95 on the Commission's website within 60 days from the effective date of this Order, stated below. The adopted amendments to GO 95 include ministerial changes necessary to integrate the new and amended rules, such as revised pagination.

4. The amendments to General Order 95 adopted by this Order shall become effective 60 days from the effective date of this Order, stated below. Pole owners and pole attachers may implement the adopted amendments sooner.

5. The Commission's Safety and Enforcement Division (SED) shall:

   i. Evaluate whether the definition of "material increase" in Rule 44.2 of General Order (GO) 95 should be revised.

   ii. Develop a proposed rule for inclusion in GO 95 that is similar to new Rule 94.6-C adopted by this Order with respect to interference with fall-protection gear, but which applies to all pole attachments. SED's proposed rule may modify or replace Rule 94.6-C adopted by this Order.

   iii. Develop a proposed rule for inclusion in GO 95 that is similar to new Rule 94.11 adopted by this Order, but which applies to all pole-top installations. SED's proposed rule may modify or replace Rule 94.11 adopted by this Order, and may apply to facilities other than pole-top installations.

   iv. Confer with the GO 95 Rules Committee with respect to Items i. ii., and iii. above.

   v. Within 12 months from the effective date of this Order, stated below, file a petition for rulemaking pursuant to Rule 6.3 of the Commission's Rules of Practice and Procedure. The petition shall seek to (A) revise the definition of "material increase" in Rule 44.2, and (B) add new rules to GO 95 as described in Item ii. and Item iii., above. SED may file the petition alone or with other parties. In lieu of including Item v.A in the petition, SED may file and serve notice in Rulemaking 14-05-001 that SED concludes, as a result of its evaluation performed pursuant to Item i., above, that no changes to Rule 44.2 are necessary.

   vi. Serve the petition identified in Item v., above, on all entities listed in Order Instituting Rulemaking 15-05-006, Appendices B through E, and the service lists for Rulemaking (R.) 15-05-006, R.14-05-001, R.08-11-005, R.07-12-001, and R.05-02-023.

6. Rulemaking 14-05-001 is closed.

This Order is effective today.

Dated _____, at San Francisco, California.

Appendix A: Adopted Amendments to the ROW Rules

Beginning on page A-3, the amendments to the Right-of-Way Rules adopted by today's decision are shown with bold font and underline for new text, and bold font and strikethrough for deleted text.

Beginning on page A-23, the amendments to the Right-of-Way Rules adopted by today's decision are shown in their final form.

Adopted Amendments – Redline Form

COMMISSION-ADOPTED RULES GOVERNING ACCESS TO RIGHTS-OF-WAY AND SUPPORT STRUCTURES OF INCUMBENT TELEPHONE AND ELECTRIC UTILITIES

I. PURPOSE AND SCOPE OF RULES

II. DEFINITIONS

III. REQUESTS FOR INFORMATION

IV. REQUESTS FOR ACCESS TO RIGHTS OF WAY AND SUPPORT STRUCTURES
- A. INFORMATION REQUIREMENTS OF REQUESTS FOR ACCESS
- B. RESPONSES TO REQUESTS FOR ACCESS
- C. TIME FOR COMPLETION OF MAKE READY WORK
- D. USE OF THIRD PARTY CONTRACTORS

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- A. DUTY NOT A DISCLOSE PROPRIETARY INFORMATION
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- A. GENERAL PRINCIPLE OF NONDISCRIMINATION
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VII. RESERVATIONS OF CAPACITY FOR FUTURE USE

VIII. MODIFICATIONS OF EXISTING SUPPORT STRUCTURES
- A. NOTIFICATION TO PARTIES ON OR IN SUPPORT STRUCTURES
- B. NOTIFICATION GENERALLY
- C. SHARING THE COST OF MODIFICATIONS

IX. EXPEDITED DISPUTE RESOLUTION PROCEDURES

X. ACCESS TO CUSTOMER PREMISES

XI. SAFETY

I. PURPOSE AND SCOPE OF RULES

These rules govern access to public utility rights-of-way and support structures by telecommunications carriers, **Commercial Mobile Radio Service (CMRS) carriers**, and cable TV companies in California, and are issued pursuant to the Commission's jurisdiction over access to utility rights of way and support structures under the Federal Communications Act, 47 U.S.C. § 224(c)(1) and subject to California Public Utilities Code §§ 767, 767.5, 767.7, 768, 768.5 and 8001 through 8057. These rules are to be applied as guidelines by parties in negotiating rights of way access agreements. Parties may mutually agree on terms which deviate from these rules, but in the event of negotiating disputes submitted for Commission resolution, the adopted rules will be deemed presumptively reasonable. The burden of proof shall be on the party advocating a deviation from the rules to show the deviation is reasonable, and is not unduly discriminatory or anticompetitive.

II. DEFINITIONS

"Public utility" or "utility" includes any person, firm or corporation, privately owned, that is an electric, or telephone utility which owns or controls, or in combination jointly owns or controls, support structures or rights-of-way used or useful, in whole or in part, for telecommunications purposes.

"Support structure" includes, but is not limited to, a utility distribution pole, anchor, duct, conduit, manhole, or handhole.

"Pole attachment" means any attachment to surplus space, or use of excess capacity, by a telecommunications carrier **or CMRS carrier** for a communications system on or in any support structure owned, controlled, or used by a public utility.

"Surplus space" means that portion of the usable space on a utility pole which has the necessary clearance from other pole users, as required by the orders and regulations of the Commission, to allow its use by a telecommunications carrier **or CMRS carrier** for a pole attachment.

"Excess capacity" means volume or capacity in a duct, conduit, or support structure other than a utility pole or anchor which can be used, pursuant to the orders and regulations of the Commission, for a pole attachment.

"Usable space" means the total distance between the top of the utility pole and the lowest possible attachment point that provides the minimum allowable vertical clearance.

"Minimum allowable vertical clearance" means the minimum clearance for communication conductors along rights-of-way or other areas as specified in the orders and regulations of the Commission.

"Rearrangements" means work performed, at the request of a telecommunications carrier **or CMRS carrier**, to, on, or in an existing support structure to create such surplus space or excess capacity as is necessary to make it usable for a pole attachment. When an existing support structure does not contain adequate surplus space or excess capacity and cannot be so rearranged as to create the required surplus space or excess capacity for a pole attachment, "rearrangements" shall include replacement, at the request of a telecommunications carrier **or CMRS carrier**, of the support structure in order to provide adequate surplus space or excess capacity. This definition is not intended to limit the circumstances where a telecommunications carrier **or CMRS carrier** may request replacement of an existing structure with a different or larger support structure.

"Annual cost of ownership" means the sum of the annual capital costs and annual operation costs of the support structure which shall be the average costs of all similar support structures owned by the public utility. The basis for computation of annual capital costs shall be historical capital cost less depreciation. The accounts upon which the historical capital costs are determined shall include a credit for all reimbursed capital costs of the public utility. Depreciation shall be based upon the average service life of the support structure. As used in this definition, "annual cost of ownership" shall not include costs for any property not necessary for a pole attachment.

"Telecommunications carrier" generally means any provider of telecommunications services that has been granted a certificate of public convenience and necessity by the California Public Utilities Commission. These rules, however, exclude ~~**Commercial Mobile Radio Service (CMRS) providers and**~~ interexchange carriers from the definition of "telecommunications carrier."

"**Commercial Mobile Radio Service (CMRS) carrier" is an entity that holds (1) a current Wireless Identification Registration with the**

California Public Utilities Commission, or (2) a current Certificate of Public Convenience and Necessity issued by the California Public Utilities Commission that authorizes the holder to provide Commercial Mobile Radio Service.

"Cable TV company" as used in these rules refers to a privately owned company, that provides cable service as defined in the PU Code and is not certified to provide telecommunications service.

"Right of way" means the right of competing providers to obtain access to the distribution poles, ducts, conduits, and other support structures of a utility which are necessary to reach customers for telecommunications purposes.

"Make ready work" means the process of completing rearrangements on or in a support structure to create such surplus space or excess capacity as is necessary to make it usable for a pole attachment.

"Modifications" means the process of changing or modifying, in whole or in part, support structures or rights of way to accommodate more or different pole attachments.

"Incumbent local exchange carrier" refers to Pacific Bell and GTE California, Inc., Roseville Telephone Company, and Citizens Telecommunications Company of California, for purposes of these rules, unless explicitly indicated otherwise.

III. REQUESTS FOR INFORMATION

A utility shall promptly respond in writing to a written request for information ("request for information") from a telecommunications carrier, **CMRS carrier**, or cable TV company regarding the availability of surplus space or excess capacity on or in the utility's support structures and rights of way. The utility shall respond to requests for information as quickly as possible consistent with applicable legal, safety, and reliability requirements, which, in the case of Pacific or GTEC, shall not exceed 10 business days if no field survey is required and shall not exceed 20 business days if a field-based survey of support structures is required. In the event the request involves more than 500 poles or 5 miles of conduit, the parties shall negotiate a mutually satisfactory longer response time.

Within the applicable time limit set forth in paragraph III.A and subject to execution of pertinent nondisclosure agreements, the utility shall provide access to maps, and currently available records such as drawings, plans and any other information which it uses in its daily transaction of business necessary for

evaluating the availability of surplus space or excess capacity on support structures and for evaluating access to a specified area of the utility's rights of way identified by the carrier.

The utility may charge for the actual costs incurred for copies and any preparation of maps, drawings or plans necessary for evaluating the availability of surplus space or excess capacity on support structures and for evaluating access to a utility's rights of way.

Within 20 business days of a request, anyone who attaches to a utility-owned pole shall allow the pole owner access to maps, and any currently available records such as drawings, plans, and any other information which is used in the daily transaction of business necessary for the owner to review attachments to its poles.

The utility may request up-front payments of its estimated costs for any of the work contemplated by Rule III.C., Rule IV.A. and Rule IV.B. The utility's estimate will be adjusted to reflect actual cost upon completion of the requested tasks.

IV. REQUESTS FOR ACCESS TO RIGHTS OF WAY AND SUPPORT STRUCTURES

A. INFORMATION REQUIREMENTS OF REQUESTS FOR ACCESS

The request for access shall contain the following:

1. Information for contacting the **telecommunications** carrier, **CMRS carrier**, or cable TV company, including project engineer, and name and address of person to be billed.
2. Loading information, which includes grade and size of attachment, size of cable, average span length, wind loading of their equipment, vertical loading, and bending movement.
3. Copy of property lease or right-of-way document.

B. RESPONSES TO REQUESTS FOR ACCESS

1. A utility shall respond in writing to the written request of a telecommunications carrier, **CMRS carrier**, or cable TV company for access ("request for access") to its rights of way and support structures as quickly as possible, which, in the case of Pacific or GTEC, shall not exceed 45 days. The response shall affirmatively state whether the utility will grant access or, if it intends to deny

access, shall state all of the reasons why it is denying such access. Failure of Pacific or GTEC to respond within 45 days shall be deemed an acceptance of the request for access.

2. If, pursuant to a request for access, the utility has notified the telecommunication carrier, **CMRS carrier**, or cable TV company that both adequate space and strength are available for the attachment, and the entity seeking access advises the utility in writing that it wants to make the attachment, the utility shall provide this entity with a list of the rearrangements or changes required to accommodate the entity's facilities and an estimate of the time required and the cost to perform the utility's portion of such rearrangements or changes.

3. If the utility does not own the property on which its support structures are located, the telecommunication carrier, **CMRS carrier**, or cable TV company must obtain written permission from the owner of that property before attaching or installing its facilities. The telecommunication carrier, **CMRS carrier**, or cable TV company by using such facilities shall defend and indemnify the owner of the utility facilities, if its franchise or other rights to use the real property are challenged as a result of the telecommunication carrier's, **CMRS carrier's**, or the cable TV company's use or attachment.

C. TIME FOR COMPLETION OF MAKE READY WORK

1. If a utility is required to perform make ready work on its poles, ducts or conduit to accommodate a **telecommunications** carrier's, **CMRS carrier's**, or a cable TV company's request for access, the utility shall perform such work at the requesting entity's sole expense. Such work shall be completed as quickly as possible consistent with applicable legal, safety, and reliability requirements, which, in the case of Pacific or GTEC shall occur within 30 business days of receipt of an advance payment for such work. If the work involves more than 500 poles or 5 miles of conduit, the parties will negotiate a mutually satisfactory longer time frame to complete such make ready work.

D. USE OF THIRD PARTY CONTRACTORS

1. The ILEC shall maintain a list of contractors that are qualified to respond to requests for information and requests for access, as well as to perform make ready work and attachment and installation of wire **telecommunications** communications, **CMRS facilities**, or cable TV facilities on the utility's support structures. This requirement shall not apply to electric utilities. This requirement shall not affect the discretion of a utility to use its own employees.

2. A telecommunications carrier, **CMRS carrier**, or cable TV company may use its own personnel to attach or install the carrier's communications facilities in or on a utility's facilities, provided that in the utility's reasonable judgment, the **telecommunications** carrier's, **CMRS carrier's**, or cable TV company's personnel or agents demonstrate that they are trained and qualified to work on or in the utility's facilities. To use its own personnel or contractors on electric utility poles, the telecommunications carrier, **CMRS carrier**, or cable TV company must give 48 hours advance notice to the electric utility, unless an electrical shutdown is required. If an electrical shutdown is required, the telecommunications carrier, **CMRS carrier**, or cable TV company must arrange a specific schedule with the electric utility. The telecommunications carrier, **CMRS carrier**, or cable TV company is responsible for all costs associated with an electrical shutdown. The inspection will be paid for by the attaching entity. The telecommunications carrier, **CMRS carrier**, or cable TV company must allow the electric utility, in the utility's discretion to inspect the ~~**telecommunication's**~~ attachment to the support structure. This provision shall not apply to electric underground facilities containing energized electric supply cables. Work involving electric underground facilities containing energized electric supply cables or the rearranging of overhead electric facilities will be conducted as required by the electric utility at its sole discretion. In no event shall the telecommunications **carrier**, **CMRS carrier**, or cable TV company or their respective contractor, interfere with the electric utility's equipment or service.

3. Incumbent utilities should adopt written guidelines to ensure that telecommunication carriers', **CMRS carrier's**, and cable TV companies' personnel and third-party contractors are qualified.

These guidelines must be reasonable and objective, and must apply equally to the incumbent utility's own personnel or the incumbent utility's own third-party contractors. Incumbent utilities must seek industry input when drafting such guidelines.

V. NONDISCLOSURE

A. DUTY NOT TO DISCLOSE PROPRIETARY INFORMATION

1. The utility and entities seeking access to poles or other support structures may provide reciprocal standard nondisclosure agreements that permit either party to designate as proprietary information any portion of a request for information or a response thereto, regarding the availability of surplus space or excess capacity on or in its support structures, or of a request for access to such surplus space or excess capacity, as well as any maps, plans, drawings or other information, including those that disclose the telecommunications carrier's, **CMRS carrier's**, or cable TV company's plans for where it intends to compete against an incumbent telephone utility. Each party shall have a duty not to disclose any information which the other contracting party has designated as proprietary except to personnel within the utility that have an actual, verifiable "need to know" in order to respond to requests for information or requests for access.

B. SANCTIONS FOR VIOLATIONS OF NONDISCLOSURE AGREEMENTS

1. Each party shall take every precaution necessary to prevent employees in its field offices or other offices responsible for making or responding to requests for information or requests for access from disclosing any proprietary information of the other party. Under no circumstances may a party disclose such information to marketing, sales or customer representative personnel. Proprietary information shall be disclosed only to personnel in the utility's field offices or other offices responsible for making or responding to such requests who have an actual, verifiable "need to know" for purposes of responding to such requests. Such personnel shall be advised of their duty not to disclose such information to any other person who does not have a "need to know" such information. Violation of the

duty not to disclose proprietary information shall be cause for imposition of such sanctions as, in the Commission's judgment, are necessary to deter the party from breaching its duty not to disclose proprietary information in the future. Any violation of the duty not to disclose proprietary information will be accompanied by findings of fact that permit a party whose proprietary information has improperly been disclosed to seek further remedies in a civil action.

VI. PRICING AND TARIFFS GOVERNING ACCESS

A. GENERAL PRINCIPLE OF NONDISCRIMINATION

1. A utility shall grant access to its rights-of-way and support structures to telecommunications carriers, **CMRS carriers**, ~~**or cable TV company**~~ and cable TV companies on a nondiscriminatory basis. Nondiscriminatory access is access on a first-come, first-served basis; access that can be restricted only on consistently applied nondiscriminatory principles relating to capacity constraints, and safety, engineering, and reliability requirements. Electric utilities' use of its own facilities for internal communications in support of its utility function shall not be considered to establish a comparison for nondiscriminatory access. A utility shall have the ability to negotiate with a telecommunications carrier, **CMRS carrier**, or cable TV company the price for access to its rights of way and support structures.

2. A utility shall grant access to its rights-of-way and support structures to telecommunications carriers, **CMRS carriers**, and cable TV companies on a nondiscriminatory basis, access to or use of the right-of-way, where such right-of-way is located on private property and safety, engineering, and reliability requirements. Electric utilities' use of their own facilities for internal communications in support of their utility function shall not be considered to establish a comparison for nondiscriminatory access. A utility shall have the ability to negotiate with a telecommunications carrier, **CMRS carrier**, or cable TV company the price for access to its rights-of-way and support structures.

B. MANNER OF PRICING ACCESS

1. Whenever a public utility and a telecommunications carrier, **CMRS carrier**, or cable TV company, or associations, therefore, are unable to agree upon the terms, conditions, or annual compensation for pole attachments or the terms, conditions, or costs of rearrangements, the Commission shall establish and enforce the rates, terms and conditions for pole attachments and rearrangements so as to assure a public utility the recovery of both of the following:

   a. A one-time reimbursement for actual costs incurred by the public utility for rearrangements performed at the request of the telecommunications carrier **or CMRS carrier**.

   b. An annual recurring fee computed as follows:

      (1) For each pole and supporting anchor actually used by the telecommunications carrier or cable TV company, the annual fee shall be two dollars and fifty cents ($2.50) or 7.4 percent of the public utility's annual cost of ownership for the pole and supporting anchor, whichever is greater, except that if a public utility applies for establishment of a fee in excess of two dollars and fifty cents ($2.50) under this rule, the annual fee shall be 7.4 percent of the public utility's annual cost of ownership for the pole and supporting anchor.

      (2) For each pole and supporting anchor actually used by a CMRS carrier, the annual fee for each foot of vertical pole space occupied by the CMRS installation shall be two dollars and fifty cents ($2.50) or 7.4 percent of the public utility's annual cost of ownership for the pole and supporting anchor, whichever is greater. The per-foot fee for CMRS installations is subject to the following conditions and limitations:

      (i) The vertical pole space occupied by each CMRS attachment shall be rounded to the nearest whole foot, with a 1-foot minimum.

      (ii) The 7.4% per-foot fee applies to the pole space that a CMRS attachment renders unusable for non-CMRS attachments, including (A) the pole space that is physically occupied by the CMRS

attachment; and (B) any pole space that cannot be used by communication and/or supply conductors due solely to the installation of the CMRS attachment.

(iii) The 7.4% per-foot fee applies to CMRS attachments anywhere on the pole.

(iv) The 7.4% per-foot fee applies once to each foot of pole height. If multiple CMRS pole attachments are placed on different sides of a pole in the same horizontal plane, the 7.4% per-foot attachment fee shall be allocated to each CMRS attachment in the same horizontal plane based on the total number of attachments in the horizontal plane.

(v) The total pole-attachment fees for all CMRS attachments on a particular pole shall not exceed 100% of the pole's cost-of-ownership, less the proportion of the pole's cost-of-ownership that is allocable to the pole space occupied by all other pole attachments.

(vi) The 7.4% per-foot fee does not apply to electric meters, risers, and conduit associated with CMRS installations.

(3) For support structures used by the telecommunications carrier, **CMRS carrier,** or cable TV company, other than poles or anchors, a percentage of the annual cost of ownership for the support structure, computed by dividing the volume or capacity rendered unusable by the telecommunications carrier's, **CMRS carrier's,** or cable TV company's equipment by the total usable volume or capacity. As used in this paragraph, "total usable volume or capacity" means all volume or capacity in which the public utility's line, plant, or system could legally be located, including the volume or capacity rendered unusable by the telecommunications carrier's, **CMRS carrier's,** or cable TV company's equipment.

c. **Except as allowed by Section VI.B.1.b.2, above,** ~~A~~ **a** utility may not charge a telecommunications carrier**, CMRS carrier,** or cable TV company a higher rate for access to its rights of way and support structures than it would charge a similarly situated cable television corporation for access to the same rights of way and support structures.

d. **A utility may not charge a CMRS carrier a higher rate for access to its rights of way and support structures than it would charge a similarly situated CMRS carrier for access to the same rights of way and support structures.**

C. CONTRACTS

1. A utility that provides or has negotiated an agreement with a telecommunications carrier, **CMRS carrier**, or cable TV company to provide access to its support structures shall file with the Commission the executed contract showing:

   a. The annual fee for attaching to a pole and supporting anchor.

   b. The annual fee per linear foot for use of conduit.

   c. Unit costs for all make ready and rearrangements work.

   d. All terms and conditions governing access to its rights of way and support structures.

   e. The fee for copies or preparation of maps, drawings and plans for attachment to or use of support structures.

2. A utility entering into contracts with telecommunications carriers, **CMRS carriers**, or cable TV companies or cable TV company for access to its support structures, shall file such contracts with the Commission pursuant to General Order 96, available for full public inspection, and extended on a nondiscriminatory basis to all other similarly situated telecommunications carriers, **CMRS carriers**, or cable TV companies. If the contracts are mutually negotiated and submitted as being pursuant to the terms of 251 and 252 of TA 96, they shall be reviewed consistent with the provisions of Resolution ALJ-174.

D. UNAUTHORIZED ATTACHMENTS

1. No party may attach to the right of way or support structure of another utility without the express written authorization from the utility.
2. For every violation of the duty to obtain approval before attaching, the owner or operator of the unauthorized attachment shall pay to the utility a penalty of $500 for each violation. This fee is in addition to all other costs which are part of the attacher's responsibility. Each unauthorized pole attachment shall count as a separate violation for assessing the penalty.
3. Any violation of the duty to obtain permission before attaching shall be cause for imposition of sanctions as, in the Commissioner's judgment, are necessary to deter the party from in the future breaching its duty to obtain permission before attaching will be accompanied by findings of fact that permit the pole owner to seek further remedies in a civil action.
4. This Section D applies to existing attachments as of the effective date of these rules.

VII. RESERVATIONS OF CAPACITY FOR FUTURE USE

A. No utility shall adopt, enforce or purport to enforce against a telecommunications carrier, **CMRS carrier**, or cable TV company any "hold off," moratorium, reservation of rights or other policy by which it refuses to make currently unused space or capacity on or in its support structures available to telecommunications carriers, **CMRS carriers**, or cable TV companies requesting access to such support structures, except as provided for in Part C below.

B. All access to a utility's support structures and rights of way shall be subject to the requirements of Public Utilities Code § 851 and General Order 69C. Instead of capacity reclamation, our preferred outcome is for the expansion of existing support structures to accommodate the need for additional attachments.

C. Notwithstanding the provisions of Paragraphs VII.A and VII.B, an electric utility may reserve space for up to 12 months on its support structures required to serve core utility customers where it demonstrates that:
(i) prior to a request for access having been made, it had a bona fide development plan in place prior to the request and that the specific

reservation of attachment capacity is reasonably and specifically needed for the immediate provision (within one year of the request) of its core utility service, (ii) there is no other feasible solution to meeting its immediately foreseeable needs, (iii) there is no available technological means of increasing the capacity of the support structure for additional attachments, and (iv) it has attempted to negotiate a cooperative solution to the capacity problem in good faith with the party seeking the attachment. An ILEC may earmark space for imminent use where construction is planned to begin within nine months of a request for access. A CLC, **CMRS carrier**, or cable TV company must likewise use space within nine months of the date when a request for access is granted, or else will become subject to reversion of its access.

VIII. MODIFICATIONS OF EXISTING SUPPORT STRUCTURES

A. NOTIFICATION TO PARTIES ON OR IN SUPPORT STRUCTURES

1. Absent a private agreement establishing notification procedures, written notification of a modification should be provided to parties with attachments on or in the support structure to be modified at least 60 days prior to the commencement of the modification. Notification shall not be required for emergency modifications or routine maintenance activities.

B. NOTIFICATION GENERALLY

1. Utilities and telecommunications carriers shall cooperate to develop a means by which notice of planned modifications to utility support structures may be published in a centralized, uniformly accessible location (e.g., a "web page" on the Internet).

A. SHARING THE COST OF MODIFICATIONS

1. The costs of support structure capacity expansions and other modifications shall be shared only by all the parties attaching to utility support structures which are specifically benefiting from the modifications on a proportionate basis corresponding to the share of usable space occupied by each benefiting carrier. In the event an energy utility incurs additional costs for trenching and installation of conduit due of safety or reliability requirements which are more

elaborate than a telecommunications-only trench, the telecommunications carriers should not pay more than they would have incurred for their own independent trench. Disputes regarding the sharing of the cost of capacity expansions and modifications shall be subject to the dispute resolution procedures contained in these rules.

IX. EXPEDITED DISPUTE RESOLUTION PROCEDURES

A. Parties to a dispute involving access to utility rights of way and support structures may invoke the Commission's dispute resolution procedures, but must first attempt in good faith to resolve the dispute. Disputes involving initial access to utility rights of way and support structures shall be heard and resolved through the following expedited dispute resolution procedure.

1. Following denial of a request for access, parties shall escalate the dispute to the executive level within each company. After 5 business days, any party to the dispute may file a formal application requesting Commission arbitration. The arbitration shall be deemed to begin on the date of the filing before the Commission of the request for arbitration. Parties to the arbitration may continue to negotiate an agreement prior to and during the arbitration hearings. The party requesting arbitration shall provide a copy of the request to the other party or parties not later than the day the Commission receives the request.

2. **Content**

A request for arbitration must contain:

a. A statement of all unresolved issues.

b. A description of each party's position on the unresolved issues.

c. A proposed agreement addressing all issues, including those upon which the parties have reached an agreement and those that are in dispute. Wherever possible, the petitioner should rely on the fundamental organization of clauses and subjects contained in an agreement previously arbitrated and approved by this Commission.

d. Direct testimony supporting the requester's position on factual predicates underlying disputed issues.

e. Documentation that the request complies with the time requirements in the preceding rule.

3. **Appointment of Arbitrator**

Upon receipt of a request for arbitration, the Commission's President or a designee in consultation with the Chief Administrative Law Judge, shall appoint and immediately notify the parties of the identity of an Arbitrator to facilitate resolution of the issues raised by the request. The Assigned Commissioner may act as Arbitrator if he/she chooses. The Arbitrator must attend all arbitration meetings, conferences, and hearings.

4. **Discovery**

Discovery should begin as soon as possible prior to or after filing of the request for negotiation and should be completed before a request for arbitration is filed. For good cause, the Arbitrator or Administrative Law Judge assigned to Law and Motion may compel response to a data request; in such cases, the response normally will be required in three working days or less.

5. **Opportunity to Respond**

Pursuant to Subsection 252(b)(3), any party to a negotiation which did not make the request for arbitration ("respondent") may file a response with the Commission within 15 days of the request for arbitration. In the response, the respondent shall address each issue listed in the request, describe the respondent's position on these issues, and identify and present any additional issues for which the respondent seeks resolution and provide such additional information and evidence necessary for the Commission's review. Building upon the contract language proposed by the applicant and using the form of agreement selected by the applicant, the respondent shall include, in the response, a single-text "mark-up" document containing the language upon which the parties agree and, where they disagree, both the applicant's proposed language (bolded) and the respondent's proposed language (underscored). Finally, the response should contain any direct testimony

supporting the respondent's position on underlying factual predicates. On the same day that it files its response before the Commission, the respondent must serve a copy of the Response and all supporting documentation on any other party to the negotiation.

6. **Revised Statement of Unresolved Issues**

   Within 3 days of receiving the response, the applicant and respondent shall jointly file a revised statement of unresolved issues that removes from the list presented in the initial petition those issues which are no longer in dispute based on the contract language offered by the respondent in the mark-up document and adds to the list only those other issues which now appear to be in dispute based on the mark-up document and other portions of the response.

7. **Initial Arbitration Meeting**

   An Arbitrator may call an initial meeting for purposes such as setting a schedule, simplifying issues, or resolving the scope and timing of discovery.

8. **Arbitration Conference and Hearing**

   Within 7 days after the filing of a response to the request for arbitration, the arbitration conference and hearing shall begin. The conduct of the conference and hearing shall be noticed on the Commission calendar and notice shall be provided to all parties on the service list.

9. **Limitation of Issues**

   The Arbitrator shall limit the arbitration to the resolution of issues raised in the application, the response, and the revised statement of unresolved issues (where applicable). In resolving the issues raised, the Arbitrator may take into account any issues already resolved between the parties.

10. **Arbitrator's Reliance on Experts**

    The Arbitrator may rely on experts retained by, or on the Staff of the Commission. Such expert(s) may assist the Arbitrator throughout the arbitration process.

11. **Close of Arbitration**

    The arbitration shall consist of mark-up conferences and limited evidentiary hearings. At the mark-up conferences, the arbitrator

will hear the concerns of the parties, determine whether the parties can further resolve their differences, and identify factual issues that may require limited evidentiary hearings. The arbitrator will also announce his or her rulings at the conferences as the issues are resolved. The conference and hearing process shall conclude within 3 days of the hearing's commencement, unless the Arbitrator determines otherwise.

12. **Expedited Stenographic Record**

    An expedited stenographic record of each evidentiary hearing shall be made. The cost of preparation of the expedited transcript shall be borne in equal shares by the parties.

13. **Authority of the Arbitrator**

    In addition to authority granted elsewhere in these rules, the Arbitrator shall have the same authority to conduct the arbitration process as an Administrative Law Judge has in conducting hearings under the Rules of Practice and Procedure. The Arbitrator shall have the authority to change the arbitration schedule contained in these rules.

    Participation Open to the Public Participation in the arbitration conferences and hearings is strictly limited to the parties negotiating a ROW agreement pursuant to the terms of these adopted rules.

14. **Arbitration Open to the Public**

    Though participation at arbitration conferences and hearings is strictly limited to the parties that were negotiating the agreements being arbitrated, the general public is permitted to attend arbitration hearings unless circumstances dictate that a hearing, or portion thereof, be conducted in closed session. Any party to an arbitration seeking a closed session must make a written request to the Arbitrator describing the circumstances compelling a closed session. The Arbitrator shall consult with the assigned Commissioner and rule on such request before hearings begin.

15. **Filing of Draft Arbitrator's Report**

    Within 15 days following the hearings, the Arbitrator, after consultation with the Assigned Commissioner, shall file a Draft Arbitrator's Report. The Draft Arbitrator's Report will include (a) a

concise summary of the issues resolved by the Arbitrator, and (b) a reasoned articulation of the basis for the decision.

16. **Filing of Post-Hearing Briefs and Comments on the Draft Arbitrator's Report**

    Each party to the arbitration may file a post-hearing brief within 7 days of the end of the mark-up conferences and hearings unless the Arbitrator rules otherwise. Post-hearing briefs shall present a party's argument in support of adopting its recommended position with all supporting evidence and legal authorities cited therein. The length of post-hearing briefs may be limited by the Arbitrator and shall otherwise comply with the Commission's Rules of Practice and Procedure. Each party and any member of the public may file comments on the Draft arbitrator's Report within 10 days of its release. Such comments shall not exceed 20 pages.

17. **Filing of the Final Arbitrator's Report**

    The arbitrator shall file the Final Arbitrator's Report no later than 15 days after the filing date for comments. Prior to the report's release, the Telecommunications Division will review the report and prepare a matrix comparing the outcomes in the report to those adopted in prior Commission arbitration decisions, highlighting variances from prior Commission policy. Whenever the Assigned Commissioner is not acting as the arbitrator, the Assigned Commissioner will participate in the release of the Final Arbitrator's Report consistent with the Commission's filing of Proposed Decisions as set forth in Rule 77.1 of the Commission's Rules of Practice and Procedure.

18. **Filing of Arbitrated Agreement**

    Within 7 days of the filing of the Final Arbitrator's Report, the parties shall file the entire agreement for approval.

19. **Commission Review of Arbitrated Agreement**

    Within 30 days following filing of the arbitrated agreement, the Commission shall issue a decision approving or rejecting the arbitrated agreement (including those parts arrived at through negotiations) pursuant to Subsection 252(e) and all its subparts.

20. **Standards for Review**

    The Commission may reject arbitrated agreements or portions thereof that do not meet the requirements of the Commission, including, but not limited to, quality of service standards adopted by the Commission.

21. **Written Findings**

    The Commission's decision approving or rejecting an arbitration agreement shall contain written findings. In the event of rejection, the Commission shall address the deficiencies of the arbitrated agreement in writing and may state what modifications of such agreement would make the agreement acceptable to the Commission.

22. **Application for Rehearing**

    A party wishing to appeal a Commission decision approving an arbitration must first seek administrative review pursuant to the Commission's Rules of Practice and Procedure.

23. The party identified by the arbitrator as the "losing party" shall reimburse the party identified by the arbitrator as the "prevailing party" for all costs of the arbitration, including the reasonable attorney and expert witness fees incurred by the prevailing party.

X. ACCESS TO CUSTOMER PREMISES

A. No carrier may use its ownership or control of any right of way or support structure to impede the access of a telecommunications carrier, **CMRS carrier,** or cable TV company to a customer's premises.

B. A carrier shall provide access, when technically feasible, to building entrance facilities it owns or controls, up to the applicable minimum point of entry (MPOE) for that property, on a nondiscriminatory, first-come, first-served basis, provided that the requesting telecommunications carrier**, CMRS carrier,** or cable TV provider has first obtained all necessary access and/or use rights from the underlying property owners(s).

C. A carrier will have 60 days to renegotiate a contract deemed discriminatory by the Commission in response to a formal complaint. Failing to do so, this carrier will become subject to a fine ranging from $500

to $20,000 per day beyond the 60-day limit for renegotiation until the discriminatory provisions of the arrangement have been eliminated.

XI. SAFETY

Access to utility rights of way and support structures shall be governed at all times by the provisions of Commission General Order Nos. 95 and 128 and by Cal/OSHA Title 8. Where necessary and appropriate, said General Orders shall be supplemented by the National Electric Safety Code, and any reasonable and justifiable safety and construction standards which are required by the utility.

A. The incumbent utility shall not be liable for work that is performed by a third party without notice and supervision, work that does not pass inspection, or equipment that contains some dangerous defect that the incumbent utility cannot reasonably be expected to detect through a visual inspection. The incumbent utility and its customers shall be immunized from financial damages in these instances.

Adopted Amendments – Final Form

COMMISSION-ADOPTED RULES GOVERNING ACCESS TO RIGHTS-OF-WAY AND SUPPORT STRUCTURES OF INCUMBENT TELEPHONE AND ELECTRIC UTILITIES

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I. PURPOSE AND SCOPE OF RULES

These rules govern access to public utility rights-of-way and support structures by telecommunications carriers, Commercial Mobile Radio Service (CMRS) carriers, and cable TV companies in California, and are issued pursuant to the Commission's jurisdiction over access to utility rights of way and support structures under the Federal Communications Act, 47 U.S.C. § 224(c)(1) and subject to California Public Utilities Code §§ 767, 767.5, 767.7, 768, 768.5 and 8001 through 8057. These rules are to be applied as guidelines by parties in negotiating rights of way access agreements. Parties may mutually agree on terms which deviate from these rules, but in the event of negotiating disputes submitted for Commission resolution, the adopted rules will be deemed presumptively reasonable. The burden of proof shall be on the party advocating a deviation from the rules to show the deviation is reasonable, and is not unduly discriminatory or anticompetitive.

II. DEFINITIONS

"Public utility" or "utility" includes any person, firm or corporation, privately owned, that is an electric, or telephone utility which owns or controls, or in combination jointly owns or controls, support structures or rights-of-way used or useful, in whole or in part, for telecommunications purposes.

"Support structure" includes, but is not limited to, a utility distribution pole, anchor, duct, conduit, manhole, or handhole.

"Pole attachment" means any attachment to surplus space, or use of excess capacity, by a telecommunications carrier or CMRS carrier for a communications system on or in any support structure owned, controlled, or used by a public utility.

"Surplus space" means that portion of the usable space on a utility pole which has the necessary clearance from other pole users, as required by the orders and regulations of the Commission, to allow its use by a telecommunications carrier or CMRS carrier for a pole attachment.

"Excess capacity" means volume or capacity in a duct, conduit, or support structure other than a utility pole or anchor which can be used, pursuant to the orders and regulations of the Commission, for a pole attachment.

"Usable space" means the total distance between the top of the utility pole and the lowest possible attachment point that provides the minimum allowable vertical clearance.

"Minimum allowable vertical clearance" means the minimum clearance for communication conductors along rights-of-way or other areas as specified in the orders and regulations of the Commission.

"Rearrangements" means work performed, at the request of a telecommunications carrier or CMRS carrier, to, on, or in an existing support structure to create such surplus space or excess capacity as is necessary to make it usable for a pole attachment. When an existing support structure does not contain adequate surplus space or excess capacity and cannot be so rearranged as to create the required surplus space or excess capacity for a pole attachment, "rearrangements" shall include replacement, at the request of a telecommunications carrier or CMRS carrier, of the support structure in order to provide adequate surplus space or excess capacity. This definition is not intended to limit the circumstances where a telecommunications carrier or CMRS carrier may request replacement of an existing structure with a different or larger support structure.

"Annual cost of ownership" means the sum of the annual capital costs and annual operation costs of the support structure which shall be the average costs of all similar support structures owned by the public utility. The basis for computation of annual capital costs shall be historical capital cost less depreciation. The accounts upon which the historical capital costs are determined shall include a credit for all reimbursed capital costs of the public utility. Depreciation shall be based upon the average service life of the support structure. As used in this definition, "annual cost of ownership" shall not include costs for any property not necessary for a pole attachment.

"Telecommunications carrier" generally means any provider of telecommunications services that has been granted a certificate of public convenience and necessity by the California Public Utilities Commission. These rules, however, exclude interexchange carriers from the definition of "telecommunications carrier."

"Commercial Mobile Radio Service (CMRS) carrier" is an entity that holds (1) a current Wireless Identification Registration with the California Public Utilities Commission, or (2) a current Certificate of Public Convenience

and Necessity issued by the California Public Utilities Commission that authorizes the holder to provide Commercial Mobile Radio Service.

"Cable TV company" as used in these rules refers to a privately owned company, that provides cable service as defined in the PU Code and is not certified to provide telecommunications service.

"Right of way" means the right of competing providers to obtain access to the distribution poles, ducts, conduits, and other support structures of a utility which are necessary to reach customers for telecommunications purposes.

"Make ready work" means the process of completing rearrangements on or in a support structure to create such surplus space or excess capacity as is necessary to make it usable for a pole attachment.

"Modifications" means the process of changing or modifying, in whole or in part, support structures or rights of way to accommodate more or different pole attachments.

"Incumbent local exchange carrier" refers to Pacific Bell and GTE California, Inc., Roseville Telephone Company, and Citizens Telecommunications Company of California, for purposes of these rules, unless explicitly indicated otherwise.

III. REQUESTS FOR INFORMATION

A utility shall promptly respond in writing to a written request for information ("request for information") from a telecommunications carrier, CMRS carrier, or cable TV company regarding the availability of surplus space or excess capacity on or in the utility's support structures and rights of way. The utility shall respond to requests for information as quickly as possible consistent with applicable legal, safety, and reliability requirements, which, in the case of Pacific or GTEC, shall not exceed 10 business days if no field survey is required and shall not exceed 20 business days if a field-based survey of support structures is required. In the event the request involves more than 500 poles or 5 miles of conduit, the parties shall negotiate a mutually satisfactory longer response time.

Within the applicable time limit set forth in paragraph III.A and subject to execution of pertinent nondisclosure agreements, the utility shall provide access to maps, and currently available records such as drawings, plans and any other information which it uses in its daily transaction of business necessary for evaluating the availability of surplus space or excess capacity on support

structures and for evaluating access to a specified area of the utility's rights of way identified by the carrier.

The utility may charge for the actual costs incurred for copies and any preparation of maps, drawings or plans necessary for evaluating the availability of surplus space or excess capacity on support structures and for evaluating access to a utility's rights of way.

Within 20 business days of a request, anyone who attaches to a utility-owned pole shall allow the pole owner access to maps, and any currently available records such as drawings, plans, and any other information which is used in the daily transaction of business necessary for the owner to review attachments to its poles.

The utility may request up-front payments of its estimated costs for any of the work contemplated by Rule III.C., Rule IV.A. and Rule IV.B. The utility's estimate will be adjusted to reflect actual cost upon completion of the requested tasks.

IV. REQUESTS FOR ACCESS TO RIGHTS OF WAY AND SUPPORT STRUCTURES

A. INFORMATION REQUIREMENTS OF REQUESTS FOR ACCESS

The request for access shall contain the following:

1. Information for contacting the telecommunications carrier, CMRS carrier, or cable TV company, including project engineer, and name and address of person to be billed.
2. Loading information, which includes grade and size of attachment, size of cable, average span length, wind loading of their equipment, vertical loading, and bending movement.
3. Copy of property lease or right-of-way document.

B. RESPONSES TO REQUESTS FOR ACCESS

1. A utility shall respond in writing to the written request of a telecommunications carrier, CMRS carrier, or cable TV company for access ("request for access") to its rights of way and support structures as quickly as possible, which, in the case of Pacific or GTEC, shall not exceed 45 days. The response shall affirmatively state whether the utility will grant access or, if it intends to deny access, shall state all of the reasons why it is denying such access.

Failure of Pacific or GTEC to respond within 45 days shall be deemed an acceptance of the request for access.

2. If, pursuant to a request for access, the utility has notified the telecommunication carrier, CMRS carrier, or cable TV company that both adequate space and strength are available for the attachment, and the entity seeking access advises the utility in writing that it wants to make the attachment, the utility shall provide this entity with a list of the rearrangements or changes required to accommodate the entity's facilities and an estimate of the time required and the cost to perform the utility's portion of such rearrangements or changes.
3. If the utility does not own the property on which its support structures are located, the telecommunication carrier, CMRS carrier, or cable TV company must obtain written permission from the owner of that property before attaching or installing its facilities. The telecommunication carrier, CMRS carrier, or cable TV company by using such facilities shall defend and indemnify the owner of the utility facilities, if its franchise or other rights to use the real property are challenged as a result of the telecommunication carrier's, CMRS carrier's, or the cable TV company's use or attachment.

C. TIME FOR COMPLETION OF MAKE READY WORK

1. If a utility is required to perform make ready work on its poles, ducts or conduit to accommodate a telecommunications carrier's, CMRS carrier's, or a cable TV company's request for access, the utility shall perform such work at the requesting entity's sole expense. Such work shall be completed as quickly as possible consistent with applicable legal, safety, and reliability requirements, which, in the case of Pacific or GTEC shall occur within 30 business days of receipt of an advance payment for such work. If the work involves more than 500 poles or 5 miles of conduit, the parties will negotiate a mutually satisfactory longer time frame to complete such make ready work.

D. USE OF THIRD PARTY CONTRACTORS

1. The ILEC shall maintain a list of contractors that are qualified to respond to requests for information and requests for access, as well as to perform make ready work and attachment and installation of wire telecommunications communications, CMRS facilities, or cable TV facilities on the utility's support structures. This requirement shall not apply to electric utilities. This requirement shall not affect the discretion of a utility to use its own employees.

2. A telecommunications carrier, CMRS carrier, or cable TV company may use its own personnel to attach or install the carrier's communications facilities in or on a utility's facilities, provided that in the utility's reasonable judgment, the telecommunications carrier's, CMRS carrier's, or cable TV company's personnel or agents demonstrate that they are trained and qualified to work on or in the utility's facilities. To use its own personnel or contractors on electric utility poles, the telecommunications carrier, CMRS carrier, or cable TV company must give 48 hours advance notice to the electric utility, unless an electrical shutdown is required. If an electrical shutdown is required, the telecommunications carrier, CMRS carrier, or cable TV company must arrange a specific schedule with the electric utility. The telecommunications carrier, CMRS carrier, or cable TV company is responsible for all costs associated with an electrical shutdown. The inspection will be paid for by the attaching entity. The telecommunications carrier, CMRS carrier, or cable TV company must allow the electric utility, in the utility's discretion to inspect the attachment to the support structure. This provision shall not apply to electric underground facilities containing energized electric supply cables. Work involving electric underground facilities containing energized electric supply cables or the rearranging of overhead electric facilities will be conducted as required by the electric utility at its sole discretion. In no event shall the telecommunications carrier, CMRS carrier, or cable TV company or their respective contractor, interfere with the electric utility's equipment or service.

3. Incumbent utilities should adopt written guidelines to ensure that telecommunication carriers', CMRS carrier's, and cable TV companies' personnel and third-party contractors are qualified. These guidelines must be reasonable and objective, and must apply

equally to the incumbent utility's own personnel or the incumbent utility's own third-party contractors. Incumbent utilities must seek industry input when drafting such guidelines.

V. NONDISCLOSURE

A. DUTY NOT TO DISCLOSE PROPRIETARY INFORMATION

1. The utility and entities seeking access to poles or other support structures may provide reciprocal standard nondisclosure agreements that permit either party to designate as proprietary information any portion of a request for information or a response thereto, regarding the availability of surplus space or excess capacity on or in its support structures, or of a request for access to such surplus space or excess capacity, as well as any maps, plans, drawings or other information, including those that disclose the telecommunications carrier's, CMRS carrier's, or cable TV company's plans for where it intends to compete against an incumbent telephone utility. Each party shall have a duty not to disclose any information which the other contracting party has designated as proprietary except to personnel within the utility that have an actual, verifiable "need to know" in order to respond to requests for information or requests for access.

B. SANCTIONS FOR VIOLATIONS OF NONDISCLOSURE AGREEMENTS

1. Each party shall take every precaution necessary to prevent employees in its field offices or other offices responsible for making or responding to requests for information or requests for access from disclosing any proprietary information of the other party. Under no circumstances may a party disclose such information to marketing, sales or customer representative personnel. Proprietary information shall be disclosed only to personnel in the utility's field offices or other offices responsible for making or responding to such requests who have an actual, verifiable "need to know" for purposes of responding to such requests. Such personnel shall be advised of their duty not to disclose such information to any other person who does not have a "need to know" such information. Violation of the duty not to disclose proprietary information shall be cause for

imposition of such sanctions as, in the Commission's judgment, are necessary to deter the party from breaching its duty not to disclose proprietary information in the future. Any violation of the duty not to disclose proprietary information will be accompanied by findings of fact that permit a party whose proprietary information has improperly been disclosed to seek further remedies in a civil action.

VI. PRICING AND TARIFFS GOVERNING ACCESS

A. GENERAL PRINCIPLE OF NONDISCRIMINATION

1. A utility shall grant access to its rights-of-way and support structures to telecommunications carriers, CMRS carriers, and cable TV companies on a nondiscriminatory basis. Nondiscriminatory access is access on a first-come, first-served basis; access that can be restricted only on consistently applied nondiscriminatory principles relating to capacity constraints, and safety, engineering, and reliability requirements. Electric utilities' use of its own facilities for internal communications in support of its utility function shall not be considered to establish a comparison for nondiscriminatory access. A utility shall have the ability to negotiate with a telecommunications carrier, CMRS carrier, or cable TV company the price for access to its rights of way and support structures.

2. A utility shall grant access to its rights-of-way and support structures to telecommunications carriers, CMRS carriers, and cable TV companies on a nondiscriminatory basis, access to or use of the right-of-way, where such right-of-way is located on private property and safety, engineering, and reliability requirements. Electric utilities' use of their own facilities for internal communications in support of their utility function shall not be considered to establish a comparison for nondiscriminatory access. A utility shall have the ability to negotiate with a telecommunications carrier, CMRS carrier, or cable TV company the price for access to its rights-of-way and support structures.

B. MANNER OF PRICING ACCESS

1. Whenever a public utility and a telecommunications carrier, CMRS carrier, or cable TV company, or associations, therefore, are

unable to agree upon the terms, conditions, or annual compensation for pole attachments or the terms, conditions, or costs of rearrangements, the Commission shall establish and enforce the rates, terms and conditions for pole attachments and rearrangements so as to assure a public utility the recovery of both of the following:

a. A one-time reimbursement for actual costs incurred by the public utility for rearrangements performed at the request of the telecommunications carrier or CMRS carrier.

b. An annual recurring fee computed as follows:

(1) For each pole and supporting anchor actually used by the telecommunications carrier or cable TV company, the annual fee shall be two dollars and fifty cents ($2.50) or 7.4 percent of the public utility's annual cost of ownership for the pole and supporting anchor, whichever is greater, except that if a public utility applies for establishment of a fee in excess of two dollars and fifty cents ($2.50) under this rule, the annual fee shall be 7.4 percent of the public utility's annual cost of ownership for the pole and supporting anchor.

(2) For each pole and supporting anchor actually used by a CMRS carrier, the annual fee for each foot of vertical pole space occupied by the CMRS installation shall be two dollars and fifty cents ($2.50) or 7.4 percent of the public utility's annual cost of ownership for the pole and supporting anchor, whichever is greater. The per-foot fee for CMRS installations is subject to the following conditions and limitations:

(i) The vertical pole space occupied by each CMRS attachment shall be rounded to the nearest whole foot, with a 1-foot minimum.

(ii) The 7.4% per-foot fee applies to the pole space that a CMRS attachment renders unusable for non-CMRS attachments, including (A) the pole space that is physically occupied by the CMRS attachment; and (B) any pole space that cannot be used by communication and/or supply

conductors due solely to the installation of the CMRS attachment.

(iii) The 7.4% per-foot fee applies to CMRS attachments anywhere on the pole.

(iv) The 7.4% per-foot fee applies once to each foot of pole height. If multiple CMRS pole attachments are placed on different sides of a pole in the same horizontal plane, the 7.4% per-foot attachment fee shall be allocated to each CMRS attachment in the same horizontal plane based on the total number of attachments in the horizontal plane.

(v) The total pole-attachment fees for all CMRS attachments on a particular pole shall not exceed 100% of the pole's cost-of-ownership, less the proportion of the pole's cost-of-ownership that is allocable to the pole space occupied by all other pole attachments.

(vi) The 7.4% per-foot fee does not apply to electric meters, risers, and conduit associated with CMRS installations.

(3) For support structures used by the telecommunications carrier, CMRS carrier, or cable TV company, other than poles or anchors, a percentage of the annual cost of ownership for the support structure, computed by dividing the volume or capacity rendered unusable by the telecommunications carrier's, CMRS carrier's, or cable TV company's equipment by the total usable volume or capacity. As used in this paragraph, "total usable volume or capacity" means all volume or capacity in which the public utility's line, plant, or system could legally be located, including the volume or capacity rendered unusable by the telecommunications carrier's, CMRS carrier's, or cable TV company's equipment.

c. Except as allowed by Section VI.B.1.b.2, above, a utility may not charge a telecommunications carrier, CMRS carrier, or cable TV company a higher rate for access to its rights of way and support structures than it would charge a similarly situated cable television corporation for access to the same rights of way and support structures.

d. A utility may not charge a CMRS carrier a higher rate for access to its rights of way and support structures than it would charge a similarly situated CMRS carrier for access to the same rights of way and support structures.

C. CONTRACTS

1. A utility that provides or has negotiated an agreement with a telecommunications carrier, CMRS carrier, or cable TV company to provide access to its support structures shall file with the Commission the executed contract showing:

   a. The annual fee for attaching to a pole and supporting anchor.

   b. The annual fee per linear foot for use of conduit.

   c. Unit costs for all make ready and rearrangements work.

   d. All terms and conditions governing access to its rights of way and support structures.

   e. The fee for copies or preparation of maps, drawings and plans for attachment to or use of support structures.

2. A utility entering into contracts with telecommunications carriers, CMRS carriers, or cable TV companies or cable TV company for access to its support structures, shall file such contracts with the Commission pursuant to General Order 96, available for full public inspection, and extended on a nondiscriminatory basis to all other similarly situated telecommunications carriers, CMRS carriers, or cable TV companies. If the contracts are mutually negotiated and submitted as being pursuant to the terms of 251 and 252 of TA 96, they shall be reviewed consistent with the provisions of Resolution ALJ-174.

D. UNAUTHORIZED ATTACHMENTS

1. No party may attach to the right of way or support structure of another utility without the express written authorization from the utility.
2. For every violation of the duty to obtain approval before attaching, the owner or operator of the unauthorized attachment shall pay to the utility a penalty of $500 for each violation. This fee is in addition to all other costs which are part of the attacher's responsibility. Each unauthorized pole attachment shall count as a separate violation for assessing the penalty.
3. Any violation of the duty to obtain permission before attaching shall be cause for imposition of sanctions as, in the Commissioner's judgment, are necessary to deter the party from in the future breaching its duty to obtain permission before attaching will be accompanied by findings of fact that permit the pole owner to seek further remedies in a civil action.
4. This Section D applies to existing attachments as of the effective date of these rules.

VII. RESERVATIONS OF CAPACITY FOR FUTURE USE

A. No utility shall adopt, enforce or purport to enforce against a telecommunications carrier, CMRS carrier, or cable TV company any "hold off," moratorium, reservation of rights or other policy by which it refuses to make currently unused space or capacity on or in its support structures available to telecommunications carriers, CMRS carriers, or cable TV companies requesting access to such support structures, except as provided for in Part C below.

B. All access to a utility's support structures and rights of way shall be subject to the requirements of Public Utilities Code § 851 and General Order 69C. Instead of capacity reclamation, our preferred outcome is for the expansion of existing support structures to accommodate the need for additional attachments.

C. Notwithstanding the provisions of Paragraphs VII.A and VII.B, an electric utility may reserve space for up to 12 months on its support structures required to serve core utility customers where it demonstrates that:
(i) prior to a request for access having been made, it had a bona fide development plan in place prior to the request and that the specific

reservation of attachment capacity is reasonably and specifically needed for the immediate provision (within one year of the request) of its core utility service, (ii) there is no other feasible solution to meeting its immediately foreseeable needs, (iii) there is no available technological means of increasing the capacity of the support structure for additional attachments, and (iv) it has attempted to negotiate a cooperative solution to the capacity problem in good faith with the party seeking the attachment. An ILEC may earmark space for imminent use where construction is planned to begin within nine months of a request for access. A CLC, CMRS carrier, or cable TV company must likewise use space within nine months of the date when a request for access is granted, or else will become subject to reversion of its access.

VIII. MODIFICATIONS OF EXISTING SUPPORT STRUCTURES

A. NOTIFICATION TO PARTIES ON OR IN SUPPORT STRUCTURES

1. Absent a private agreement establishing notification procedures, written notification of a modification should be provided to parties with attachments on or in the support structure to be modified at least 60 days prior to the commencement of the modification. Notification shall not be required for emergency modifications or routine maintenance activities.

B. NOTIFICATION GENERALLY

1. Utilities and telecommunications carriers shall cooperate to develop a means by which notice of planned modifications to utility support structures may be published in a centralized, uniformly accessible location (e.g., a "web page" on the Internet).

A. SHARING THE COST OF MODIFICATIONS

1. The costs of support structure capacity expansions and other modifications shall be shared only by all the parties attaching to utility support structures which are specifically benefiting from the modifications on a proportionate basis corresponding to the share of usable space occupied by each benefiting carrier. In the event an energy utility incurs additional costs for trenching and installation of conduit due of safety or reliability requirements which are more

elaborate than a telecommunications-only trench, the telecommunications carriers should not pay more than they would have incurred for their own independent trench. Disputes regarding the sharing of the cost of capacity expansions and modifications shall be subject to the dispute resolution procedures contained in these rules.

IX. EXPEDITED DISPUTE RESOLUTION PROCEDURES

A. Parties to a dispute involving access to utility rights of way and support structures may invoke the Commission's dispute resolution procedures, but must first attempt in good faith to resolve the dispute. Disputes involving initial access to utility rights of way and support structures shall be heard and resolved through the following expedited dispute resolution procedure.

1. Following denial of a request for access, parties shall escalate the dispute to the executive level within each company. After 5 business days, any party to the dispute may file a formal application requesting Commission arbitration. The arbitration shall be deemed to begin on the date of the filing before the Commission of the request for arbitration. Parties to the arbitration may continue to negotiate an agreement prior to and during the arbitration hearings. The party requesting arbitration shall provide a copy of the request to the other party or parties not later than the day the Commission receives the request.

2. **Content**

A request for arbitration must contain:

a. A statement of all unresolved issues.

b. A description of each party's position on the unresolved issues.

c. A proposed agreement addressing all issues, including those upon which the parties have reached an agreement and those that are in dispute. Wherever possible, the petitioner should rely on the fundamental organization of clauses and subjects contained in an agreement previously arbitrated and approved by this Commission.

d. Direct testimony supporting the requester's position on factual predicates underlying disputed issues.

e. Documentation that the request complies with the time requirements in the preceding rule.

3. **Appointment of Arbitrator**

Upon receipt of a request for arbitration, the Commission's President or a designee in consultation with the Chief Administrative Law Judge, shall appoint and immediately notify the parties of the identity of an Arbitrator to facilitate resolution of the issues raised by the request. The Assigned Commissioner may act as Arbitrator if he/she chooses. The Arbitrator must attend all arbitration meetings, conferences, and hearings.

4. **Discovery**

Discovery should begin as soon as possible prior to or after filing of the request for negotiation and should be completed before a request for arbitration is filed. For good cause, the Arbitrator or Administrative Law Judge assigned to Law and Motion may compel response to a data request; in such cases, the response normally will be required in three working days or less.

5. **Opportunity to Respond**

Pursuant to Subsection 252(b)(3), any party to a negotiation which did not make the request for arbitration ("respondent") may file a response with the Commission within 15 days of the request for arbitration. In the response, the respondent shall address each issue listed in the request, describe the respondent's position on these issues, and identify and present any additional issues for which the respondent seeks resolution and provide such additional information and evidence necessary for the Commission's review. Building upon the contract language proposed by the applicant and using the form of agreement selected by the applicant, the respondent shall include, in the response, a single-text "mark-up" document containing the language upon which the parties agree and, where they disagree, both the applicant's proposed language (bolded) and the respondent's proposed language (underscored). Finally, the response should contain any direct testimony

supporting the respondent's position on underlying factual predicates. On the same day that it files its response before the Commission, the respondent must serve a copy of the Response and all supporting documentation on any other party to the negotiation.

6. **Revised Statement of Unresolved Issues**

   Within 3 days of receiving the response, the applicant and respondent shall jointly file a revised statement of unresolved issues that removes from the list presented in the initial petition those issues which are no longer in dispute based on the contract language offered by the respondent in the mark-up document and adds to the list only those other issues which now appear to be in dispute based on the mark-up document and other portions of the response.

7. **Initial Arbitration Meeting**

   An Arbitrator may call an initial meeting for purposes such as setting a schedule, simplifying issues, or resolving the scope and timing of discovery.

8. **Arbitration Conference and Hearing**

   Within 7 days after the filing of a response to the request for arbitration, the arbitration conference and hearing shall begin. The conduct of the conference and hearing shall be noticed on the Commission calendar and notice shall be provided to all parties on the service list.

9. **Limitation of Issues**

   The Arbitrator shall limit the arbitration to the resolution of issues raised in the application, the response, and the revised statement of unresolved issues (where applicable). In resolving the issues raised, the Arbitrator may take into account any issues already resolved between the parties.

10. **Arbitrator's Reliance on Experts**

    The Arbitrator may rely on experts retained by, or on the Staff of the Commission. Such expert(s) may assist the Arbitrator throughout the arbitration process.

11. **Close of Arbitration**

    The arbitration shall consist of mark-up conferences and limited evidentiary hearings. At the mark-up conferences, the arbitrator

will hear the concerns of the parties, determine whether the parties can further resolve their differences, and identify factual issues that may require limited evidentiary hearings. The arbitrator will also announce his or her rulings at the conferences as the issues are resolved. The conference and hearing process shall conclude within 3 days of the hearing's commencement, unless the Arbitrator determines otherwise.

12. **Expedited Stenographic Record**

    An expedited stenographic record of each evidentiary hearing shall be made. The cost of preparation of the expedited transcript shall be borne in equal shares by the parties.

13. **Authority of the Arbitrator**

    In addition to authority granted elsewhere in these rules, the Arbitrator shall have the same authority to conduct the arbitration process as an Administrative Law Judge has in conducting hearings under the Rules of Practice and Procedure. The Arbitrator shall have the authority to change the arbitration schedule contained in these rules.

    Participation Open to the Public Participation in the arbitration conferences and hearings is strictly limited to the parties negotiating a ROW agreement pursuant to the terms of these adopted rules.

14. **Arbitration Open to the Public**

    Though participation at arbitration conferences and hearings is strictly limited to the parties that were negotiating the agreements being arbitrated, the general public is permitted to attend arbitration hearings unless circumstances dictate that a hearing, or portion thereof, be conducted in closed session. Any party to an arbitration seeking a closed session must make a written request to the Arbitrator describing the circumstances compelling a closed session. The Arbitrator shall consult with the assigned Commissioner and rule on such request before hearings begin.

15. **Filing of Draft Arbitrator's Report**

    Within 15 days following the hearings, the Arbitrator, after consultation with the Assigned Commissioner, shall file a Draft Arbitrator's Report. The Draft Arbitrator's Report will include (a) a

concise summary of the issues resolved by the Arbitrator, and (b) a reasoned articulation of the basis for the decision.

16. **Filing of Post-Hearing Briefs and Comments on the Draft Arbitrator's Report**

    Each party to the arbitration may file a post-hearing brief within 7 days of the end of the mark-up conferences and hearings unless the Arbitrator rules otherwise. Post-hearing briefs shall present a party's argument in support of adopting its recommended position with all supporting evidence and legal authorities cited therein. The length of post-hearing briefs may be limited by the Arbitrator and shall otherwise comply with the Commission's Rules of Practice and Procedure. Each party and any member of the public may file comments on the Draft arbitrator's Report within 10 days of its release. Such comments shall not exceed 20 pages.

17. **Filing of the Final Arbitrator's Report**

    The arbitrator shall file the Final Arbitrator's Report no later than 15 days after the filing date for comments. Prior to the report's release, the Telecommunications Division will review the report and prepare a matrix comparing the outcomes in the report to those adopted in prior Commission arbitration decisions, highlighting variances from prior Commission policy. Whenever the Assigned Commissioner is not acting as the arbitrator, the Assigned Commissioner will participate in the release of the Final Arbitrator's Report consistent with the Commission's filing of Proposed Decisions as set forth in Rule 77.1 of the Commission's Rules of Practice and Procedure.

18. **Filing of Arbitrated Agreement**

    Within 7 days of the filing of the Final Arbitrator's Report, the parties shall file the entire agreement for approval.

19. **Commission Review of Arbitrated Agreement**

    Within 30 days following filing of the arbitrated agreement, the Commission shall issue a decision approving or rejecting the arbitrated agreement (including those parts arrived at through negotiations) pursuant to Subsection 252(e) and all its subparts.

20. **Standards for Review**

    The Commission may reject arbitrated agreements or portions thereof that do not meet the requirements of the Commission, including, but not limited to, quality of service standards adopted by the Commission.

21. **Written Findings**

    The Commission's decision approving or rejecting an arbitration agreement shall contain written findings. In the event of rejection, the Commission shall address the deficiencies of the arbitrated agreement in writing and may state what modifications of such agreement would make the agreement acceptable to the Commission.

22. **Application for Rehearing**

    A party wishing to appeal a Commission decision approving an arbitration must first seek administrative review pursuant to the Commission's Rules of Practice and Procedure.

23. The party identified by the arbitrator as the "losing party" shall reimburse the party identified by the arbitrator as the "prevailing party" for all costs of the arbitration, including the reasonable attorney and expert witness fees incurred by the prevailing party.

X. ACCESS TO CUSTOMER PREMISES

A. No carrier may use its ownership or control of any right of way or support structure to impede the access of a telecommunications carrier, CMRS carrier, or cable TV company to a customer's premises.

B. A carrier shall provide access, when technically feasible, to building entrance facilities it owns or controls, up to the applicable minimum point of entry (MPOE) for that property, on a nondiscriminatory, first-come, first-served basis, provided that the requesting telecommunications carrier, CMRS carrier, or cable TV provider has first obtained all necessary access and/or use rights from the underlying property owners(s).

C. A carrier will have 60 days to renegotiate a contract deemed discriminatory by the Commission in response to a formal complaint. Failing to do so, this carrier will become subject to a fine ranging from $500

to $20,000 per day beyond the 60-day limit for renegotiation until the discriminatory provisions of the arrangement have been eliminated.

XI. SAFETY

Access to utility rights of way and support structures shall be governed at all times by the provisions of Commission General Order Nos. 95 and 128 and by Cal/OSHA Title 8. Where necessary and appropriate, said General Orders shall be supplemented by the National Electric Safety Code, and any reasonable and justifiable safety and construction standards which are required by the utility.

A. The incumbent utility shall not be liable for work that is performed by a third party without notice and supervision, work that does not pass inspection, or equipment that contains some dangerous defect that the incumbent utility cannot reasonably be expected to detect through a visual inspection. The incumbent utility and its customers shall be immunized from financial damages in these instances.

(END OF APPENDIX A)

Appendix B: Proposed Revisions to GO 95

Appendix B shows proposed revisions to General Order 95 with bold font, underline, and/or strikeout.

Revised Rule 21.0-D and Rule 87.7-B (Guard Arms)

Proposed Revisions to Rule 21.0 Shown with Underline.

21.0 Crossarm or Arm means a horizontal support attached to poles or structures generally at right angles to the conductor supported.

(No change to parts A through C)

D. Guard Arm means a crossarm installed on a pole not more than 4 inches directly above and approximately parallel to the messenger, cable or conductors being guarded. Guard arms shall not be used to support conductors, **antennas,** or other line facilities except as specifically provided in these rules (see Rules 84.8–B2c and 87.7–B).

Proposed Revisions to Rule 87.7-B Shown with Underline.

87.7 Covering or Guarding

B. Longitudinal Aerial Cables or Messengers

A guard arm, at least 4 feet in length, shall be placed directly above and as nearly parallel as practicable to longitudinal aerial cables or messengers over which a guard arm is required by the provisions of Rule 87.4–C3. In lieu of the guard arm a suitable wood covering of the length specified for guard arms may be placed around the cable and messenger.

Double guard arms shall be installed above cables and messengers which are deadended on poles where the installation of guard arms is required by the provisions of Rule 87.4–C3.

No communication **antenna,** conductor, cable or messenger shall be supported on or attached to the top or side surface of any guard arm except as permitted for service drops and their (vertical and lateral) runs by the provisions of Rules 84.6-C and 84.8–B2c.

New Rule 94.3-D (Load Calculation)

Proposed Additions to GO 95 Shown with Underline.

94.3 General Requirements

D. Prior to the installation of antennas and associated equipment, a safety factor calculation must be performed to ensure compliance with the requirements of Rule 44, as follows:

(1) The calculation must be performed using methods and/or software applications accepted as good industry practice.

(2) The parameters used in the safety factor calculation shall be based on the actual specifications of the conductors and equipment on the pole and not on general assumptions and estimates.

(3) The safety factor calculation shall be retained for the life of the facility.

(4) A new safety factor calculation shall be performed in accordance with Rule 94.3-D, sections 1, 2 and 3 each time additional facilities are installed on the pole, or the loading is altered as a result of any other condition.

Revised Rule 94.5-A (Marking)

Proposed Revisions to GO 95 Shown with Strikeout and Underline.

94.5 Marking

A. ~~No antenna owner or operator shall install an antenna on a joint use pole unless such installation is subject to an agreement with the pole owner(s) that includes marking requirements that are substantially similar to and achieve at least the same safety standards as those set forth in~~ Antennas shall be marked in accordance with Appendix H., including Exhibit A, to GO 95.

New Rule 94.6-C (Fall-Protection Gear)

Proposed Additions to GO 95 Shown with Underline.

94.6 Climbing Space

(No Changes to Parts A and B.)

Electric IOUs' Proposed Rule 94.6-C

C. Unnecessary impairment of the climbing space or interference with fall restraint and fall protection equipment is not permitted by the application of Rule 54.7 or Rule 84.7.

AT&T Mobility and CTIA's Proposed Rule 94.6-C

C. This Rule is not intended to authorize unnecessary interference with fall restraint and fall protection equipment. Examples of obstructions that shall not be considered to interfere with fall restraint and fall protection equipment include, but are not limited to, the following:

(1) Surface-mounted equipment that occupies no more than 18 inches of vertical space;

(2) Equipment stood off from the pole to maintain a minimum of 4 inches of clear space between the equipment and the pole;

(3) Appropriately designed and installed surface-mounted risers;

(4) Obstructions detailed in Rules 54.7-A2c(3) and 84.7-A(5).

SED's Proposed Rule 94.6-C

C. Interference with fall restraint and fall protection equipment is not permitted by the application of Rule 54.7 or Rule 84.7.

Revised Rule 94.9 (De-Energizing Protocols)

Proposed Revisions to GO 95 Shown with Strikeout and Underline.

94.9 De-Energizing

~~No antenna owner or operator shall install an antenna on a joint use pole unless such installation is subject to an agreement with the pole owner(s) that includes de-energizing protocols that are substantially similar to and achieve at least the same safety standards as those set forth in~~ The de-energizing protocols in Appendix H~~.~~, Exhibits B and C, to GO 95 shall be followed by antenna owners for routine and emergency working conditions respectively.

New Rule 94.10 (Pad Mounting)

Proposed Additions to GO 95 Shown with Underline.

94.10 De-Energizing

Without good cause, any equipment that is associated with an antenna that increases loading on a pole shall be installed in a pad-mounted structure.

New Rule 94.11 (Pole Embedment)

Proposed Additions to GO 95 Shown with Underline.

94.11 Pole Top Extensions

If a pole top extension is installed, the length of the extension shall be added to the length of the pole to determine the required depth in accordance with Rule 49.1-C. For existing poles, if the depth of the pole is not adequate to support a pole top extension, the extension shall not be installed.

New Rule 94.3-C(1) (Pole Embedment)

Proposed Additions to GO 95 Shown with Underline.

94.3 General Requirements

C. Support elements (e.g. arms, braces, brackets, hardware) and pole-top extensions shall conform to the requirements of Section IV.

(1) If a pole top extension is installed, the length of the extension shall not be added to the length of the pole to determine the required depth in accordance with Rule 49.1-C. However, where a pole top extension is added for the purpose of installing antennae, consideration shall be given to affirm the overturning moment is not exceeded.

New Rule 94.12 (Pole-Top Antenna Access)

Proposed Additions to GO 95 Shown with Underline.

94.12 Pole Top Antenna Access

Above the supply level, antennas or associated elements shall only be installed, maintained or physically accessed by employees of the owner of the supply system, its contractors or other qualified electrical workers that are authorized by the owner of the supply system.

Appendix C: Adopted Amendments to General Order 95

Appendix C shows the new and revised General Order 95 Rules adopted by today's decision in final form.

Rule 21.0-D (Guard Arms)

Adopted Rule in Final Form

21.0 Crossarm or Arm means a horizontal support attached to poles or structures generally at right angles to the conductor supported.

(No change to parts A through C)

D. Guard Arm means a crossarm installed on a pole not more than 4 inches directly above and approximately parallel to the messenger, cable or conductors being guarded. Guard arms shall not be used to support conductors, antennas, or other line facilities except as specifically provided in these rules (see Rules 84.8–B2c and 87.7–B).

Rule 87.7-B (Guard Arms)

Adopted Rule in Final Form

87.7 Covering or Guarding

B. Longitudinal Aerial Cables or Messengers

(No change to first two paragraphs)

No communication antenna, conductor, cable or messenger shall be supported on or attached to the top or side surface of any guard arm except as permitted for service drops and their (vertical and lateral) runs by the provisions of Rules 84.6-C and 84.8–B2c.

Rule 94.5-A (Marking)

Adopted Rule in Final Form

94.5 Marking

A. Antennas shall be marked in accordance with Appendix H, including Exhibit A, to GO 95.

Rule 94.6-C (Climbing Space and Fall Protection)

Adopted Rule in Final Form

94.6 Climbing Space

C. Antennas and all associated attachments shall not impair climbing space or interfere with fall restraint and fall protection equipment except as permitted by the application of Rule 54.7 or Rule 84.7.

Note: Examples of attachments that might not interfere with fall restraint and fall protection equipment include, but are not limited to, the following:

(1) Surface-mounted equipment that occupies no more than 18 inches of vertical space.

(2) Equipment stood off from the pole to maintain a minimum of 4 inches of clear space between the equipment and the pole.

(3) Appropriately designed and installed surface-mounted risers.

Rule 94.9 (De-Energizing Protocols)

Adopted Rule in Final Form

94.9 De-Energizing

The de-energizing protocols in Appendix H, Exhibits B and C, of GO 95 shall be followed by antenna owners for routine and emergency working conditions respectively.

Rule 94.11 (Pole Overturning Calculation)

Adopted Rule in Final Form

94.11 Pole Overturning Calculation

A pole overturning calculation shall be performed before a pole-top antenna installation is added to a pole. The calculation shall use a safety factor of 3.0 for Grade A construction, and 2.0 for Grades B and C construction, and incorporate loads for the entire pole structure, including all existing attachments and guys (if any), and all elements of the planned pole-top antenna installation. After the installation, the safety factor shall comply with Rule 44.3.

Note: The purpose of this calculation is to ensure that the pole overturning moment does not exceed the capacity of the soil, rock, or other material in which the pole is embedded to resist the pole overturning moment.

Rule 94.12 (Personnel Access Above Supply Lines)

Adopted Rule in Final Form

94.12 Personnel Access Above Supply Lines

Only personnel and contractors who are properly qualified to work in proximity to supply lines shall have access to, and work on, wireless facilities installed above supply lines on the same support structure.

Appendix D: Examples of Pole Space Subject to the 7.4% Fee

Today's Decision adopts a default pricing standard that each foot of vertical pole space which a CMRS attachment renders unusable for non-CMRS attachments shall be subject to an annual attachment fee equal to 7.4% of the pole owner's annual cost-of-ownership. The following examples provide guidance for implementing this principle.

Example 1: Pole Space Immediately Below Power Lines Operating at 750 - 7,500 Volts. The minimum safety clearance between power lines operating at 750 - 7,500 volts and a communication conductor is 4 feet.[130] The minimum safety clearance between communication conductors is 1 foot.[131] Thus, for power lines operating at 750 - 7,500 volts, a communication conductor may be installed 4 feet below the power lines, another communication conductor 5 feet below the power lines, and every foot thereafter.

The minimum safety clearance between power lines operating at 750 - 7,500 volts and an antenna installed below the power lines is 6 feet.[132] The minimum safety clearance between an antenna and a communication conductor is 2 feet.[133] Thus, for power lines operating at 750 - 7,500 volts, it would be possible to install a communication conductor 4 feet below the power lines, and a CMRS antenna 6 feet below the power lines. However, no communication conductor could be installed 5 feet below the power lines or 6 feet below the power lines as would be the case without the CMRS antenna.

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[130] GO 95, Rule 38, Table 2, Case 8, Column E.

[131] GO 95, Rule 38, Table 2, Case 8, Column C.

[132] GO 95, Rule 94.4-A. See also GO 95, Table 2, Case 21, Column E.

[133] GO 95, Rule 38, Table 2, Case 21, Column C.

In this example, for the pole space between the power lines and the CMRS antenna installed 6 feet below the power lines, the pole space that is rendered unusable for communication conductors due to the CMRS antenna is 1 foot (i.e., the pole space between 5 and 6 feet below the power lines can no longer be used for communication conductors due solely to the installation of the CMRS antenna).

Example 2: Pole Space Immediately Below Power Lines Operating at 7,500 – 50,000 Volts. The minimum safety clearance between power lines operating at 7,500 - 50,000 volts and a communication conductor is 6 feet.[134] The minimum safety clearance between power lines operating at 7,500 - 50,000 volts and an antenna installed below the power lines is 6 feet.[135] Thus, for power lines operating at 7,500 – 50,00 volts, it would not be possible to install a communication conductor in the first 6 feet below the power lines, with or without the CMRS antenna.

In this example, for the pole space between the power lines and the CMRS antenna installed 6 feet below the power lines, there is no pole space that is rendered unusable for communication conductors due to the CMRS antenna.

Example 3: Pole Space Immediately Above Power Lines Operating at 750 – 7,500 Volts, Attached 6 Feet Below the Pole Top. Power lines operating at 750 - 7,500 volts must maintain a minimum safety clearance of 4 feet from other power lines attached to the same pole operating at 0 - 75,000 volts.[136] So, if power lines operating at 750 – 7,500 volts are attached 6 feet below the top of the pole,

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[134] GO 95, Rule 38, Table 2, Case 8, Columns F, G, and H.

[135] GO 95, Rule 94.4-A. See also GO 95, Table 2, Case 21, Columns F, G, and H, and Footnote (uu).

[136] GO 95, Rule 38, Table 2, Case 10, Columns D through H.

there would enough pole space to allow another set of power lines operating at 0 - 75,000 volts to be attached at the top 2 feet of the pole.

Power lines operating at 750 - 7,500 volts must maintain a minimum vertical safety clearance of 6 feet from an antenna.[137] Therefore, an antenna attached at the top of the pole would prevent the installation of additional power lines between the antenna and the existing power lines attached 6 feet below the top of the pole.

In this example, for the pole space between the CMRS antenna and the power lines 6 feet below the antenna, the pole space that is rendered unusable for additional power lines due to the CMRS antenna is 2 feet (i.e., the top two feet of pole space can no longer be used for power lines due solely to the installation of the CMRS antenna).

Example 4: Pole Space Immediately Above Power Lines Operating at 750 – 7,500 Volts, Attached 3 Feet Below the Pole Top. Power lines operating at 750 - 7,500 volts must maintain a minimum safety clearance of 4 feet from other power lines attached to the same pole operating at 0 - 75,000 volts.[138] So, if power lines operating at 750 – 7,500 volts are attached 3 feet below the top of the pole, there would not be enough pole space to allow another set of power lines to be attached at the top of the pole.

Power lines operating at 750 - 7,500 volts must maintain a minimum vertical safety clearance or 6 feet from an antenna.[139] Thus, for an antenna to be attached to the top of the pole in this example, the antenna would require a

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[137] GO 95, Rule 38, Table 2, Case 21, Column E.

[138] GO 95, Rule 38, Table 2, Case 10, Columns D through H.

[139] GO 95, Rule 38, Table 2, Case 21, Column E.

pole-top extension of at least 3 feet to obtain the minimum 6-foot safety clearance with the power lines attached 3 feet below the top of the pole.

In this example, for the pole space between the CMRS antenna and the existing power lines 3 feet below the pole top, there is no pole space that is rendered unusable for additional power lines because of safety clearances associated with the CMRS antenna. However, the 7.4% pole-attachment fee would still apply to the pole space occupied by the antenna's attachment bracket.[140]

[140] Pole-top attachers must pay, as part of make-ready charges, the entire cost of any pole-top extension required to create the necessary 6-foot clearance.

Appendix E: Example Calculations of Pole Overturning Moment

Pole Overturning Moment

45-Foot Wood Pole, Grade A, Class 4, Douglas Fir, Embedded 6 Feet, No Pole-Top Extension

Using RUS Equation 12-1

Based on Calculations in the Workshop Report (April 7, 2015), Appendix H

Step 1: Determine Horizontal Force Applied 2 Feet from Top of Pole that Will Overturn the Pole Using RUS Equation 12-1

Notation	Information	Value/Equation	Units	Equation Result at Se = 70	Equation Result at Se = 110
P	Horizontal Force 2 Feet from Top of Pole that Will Overturn the Pole	**P** = (**Se** x **De**^3.75) ÷ (**Le** - 2 - (0.662 x **De**))	Pounds	1,485	2,334
Se	Soil Constant for Average Soil	70			
Se	Soil Constant for Average Soil	110			
De	Pole Embedment Depth	6	Feet		
Lp	Length of Pole	45	Feet		
e	Length of Pole-Top Extension	0	Feet		
Le	Length of Pole with Extension	45	Feet		

Step 2: Determine Soil Resistance to Overturning Using Specified Soil Constant (Se) and Specified Safety Factor (SF)

Notation	Information	Value/Equation	Units	Equation Result at Se = 70	Equation Result at Se = 110
Mot	Soil Resistance to Overturning Using Specified Safety Factor	**Mot** = (**P** x (**Hp**-2)) ÷ **SF**			
Se	Soil Constant for Average Soil	70 or 110			
SF: 1	Safety Factor	1	Foot-Pounds	54,953	86,355
SF: 1.5	Safety Factor	1.5	ft.-lbs.	36,635	57,570
SF: 2.0	Safety Factor	2	ft.-lbs.	27,476	43,177
SF: 2.67	Safety Factor	2.67	ft.-lbs.	20,582	32,343
SF: 3	Safety Factor	3	ft.-lbs.	18,318	28,785
SF: 4	Safety Factor	4	ft.-lbs.	13,738	21,589
P	Horizontal Force 2 Feet from Top of Pole that Will Overturn the Pole	See Step 1, Above	Pounds		
L	Length of Pole	45	Feet		
De	Pole Embedment Depth	6	Feet		
Hp	Height of Pole Above Ground Line	39	Feet		
e	Length of Pole-Top Extension	0	Feet		
He	Height of Pole Above Ground Line with Extension	39	Feet		

Pole Bending Moment Strength at Ground Line Based on Workshop Report (April 7, 2015) at Appendix H, p. H-8.	**SF: 1.0**	**SF: 2.0**	**SF: 2.67**	**SF: 3.0**	**SF: 4.0**
	90,552 Foot-Pounds	45,276 Foot-Pounds	33,915 Foot-Pounds	30,184 Foot-Pounds	22,638 Foot-Pounds

Pole Overturning Moment

45-Foot Wood Pole, Grade A, Class 4, Douglas Fir, Embedded 6 Feet, with 7-Foot Pole-Top Extension

Using RUS Equation 12-1

Based on Calculations in the Workshop Report (April 7, 2015), Appendix H

Step 1: Determine Horizontal Force Applied 2 Feet from Top of Pole that Will Overturn the Pole Using RUS Equation 12-1

Notation	Information	Value/Equation	Units	Equation Result at Se = 70	Equation Result at Se = 110
P	Horizontal Force 2 Feet from Top of Pole that Will Overturn the Pole	**P** = (**Se** x **De**^3.75) ÷ (**Le** - 2 - (0.662 x **De**))	Pounds	1,259	1,979
Se	Soil Constant for Average Soil	70			
Se	Soil Constant for Average Soil	110			
De	Pole Embedment Depth	6	Feet		
Lp	Length of Pole	45	Feet		
e	Length of Pole-Top Extension	7	Feet		
Le	Length of Pole with Extension	52	Feet		

Step 2: Determine Soil Resistance to Overturning Using Specified Soil Constant (Se) and Specified Safety Factor (SF)

Notation	Information	Value/Equation	Units	Equation Result at Se = 70	Equation Result at Se = 110
Mot	Soil Resistance to Overturning Using Specified Safety Factor	**Mot** = (**P** x (**He**-2)) ÷ **SF**			
Se	Soil Constant for Average Soil	70 or 110			
SF: 1	Safety Factor	1	Foot-Pounds	55,411	87,074
SF: 1.5	Safety Factor	1.5	ft.-lbs.	36,941	58,050
SF: 2.0	Safety Factor	2	ft.-lbs.	27,705	43,537
SF: 2.67	Safety Factor	2.67	ft.-lbs.	20,753	32,612
SF: 3	Safety Factor	3	ft.-lbs.	18,470	29,025
SF: 4	Safety Factor	4	ft.-lbs.	13,853	21,769
P	Horizontal Force 2 Feet from Top of Pole that Will Overturn the Pole	See Step 1, Above	Pounds		
L	Length of Pole	45	Feet		
De	Pole Embedment Depth	6	Feet		
Hp	Height of Pole Above Ground Line	39	Feet		
e	Length of Pole-Top Extension	7	Feet		
He	Height of Pole Above Ground Line with Extension	46	Feet		

Pole Bending Moment Strength at Ground Line Based on Workshop Report (April 7, 2015) at Appendix H, p. H-8.	**SF: 1.0**	**SF: 2.0**	**SF: 2.67**	**SF: 3.0**	**SF: 4.0**
	90,552 Foot-Pounds	45,276 Foot-Pounds	33,915 Foot-Pounds	30,184 Foot-Pounds	22,638 Foot-Pounds

(END OF APPENDIX E)