

EXHIBIT PDK 2

POLE ATTACHMENT TOOLKIT



- Overview
- Political & Member Relations
- Engineering & Operations Issues
- Rate Methodologies**
- Legal & Regulatory Issues
- Sample License Agreement
- Survey Results

► Rate Methodologies

 printable version ►

FCC Formulas

The FCC employs two different pole attachment formulas: the cable-only formula and the telecom formula. The cable-only formula applies to cable television operators that provide only cable service. The telecom formula applies to all providers of telecommunications services except for wholesale telecom providers (i.e., carriers' carriers) and incumbent local exchange carriers (ILECs), whose rates are negotiated, not regulated. To the extent that cable operators provide telecommunications services, they become subject to the telecom rate.

The cable-only and telecom formulas are expressed as follows:

$$\begin{array}{lcl} \text{Maximum rate} & = & \frac{\text{space occupied}}{\text{total usable space}} \times \frac{\text{net cost of}}{\text{a bare pole}} \times \frac{\text{carrying}}{\text{charge rate}} \\ \text{(cable-only)} & & \end{array}$$

$$\begin{array}{lcl} \text{Maximum rate} & = & \frac{\text{attacher}}{\text{responsibility}} \times \frac{\text{net cost of}}{\text{a bare pole}} \times \frac{\text{carrying}}{\text{charge rate}} \\ \text{(telecom)} & & \text{percentage} \end{array}$$

The annual costs of owning and maintaining a pole are calculated in the same manner for both the cable-only and telecom formulas. In both of these formulas, the net cost of a bare pole is multiplied by the carrying charge rate to determine the annual cost of owning and maintaining a single pole. That annual cost figure is then multiplied by the percentage of those costs that are allocated to the attacher.

The only difference between the two formulas is the method by which the annual costs of owning and maintaining a pole are allocated. In most circumstances, and as explained fully below, the cost allocations included in the telecom formula will result in a rate for telecom attachments that is significantly higher than the cable-only rate.

Each of the elements of these formulas is discussed in more detail below. Special considerations apply to the rate calculation for electric cooperatives. First, since the vast majority of cooperatives are tax exempt, several items in the calculation may not be applicable. For example, the vast majority of cooperatives will not have any accumulated deferred income taxes. Also, three of Federal Energy Regulatory Commission's (FERC) "taxes" accounts (410.1, 411.4, and 411.1) may not apply. Instead, the only FERC taxes accounts that may apply are FERC accounts 408.1 (covering property taxes) and 409.1 (covering gross receipts taxes).

Second, the applicable rate of return may be calculated by the Goodwin formula, and that figure may replace the FCC's 11.25% default rate of return. The Goodwin formula calculates the rate of return needed to support the financing of plant growth and the retirement of capital credits. The formula is:

$$\text{Rate of return} = \frac{(1+g)^{n+1} - (1+g)^n}{(1+g)^n - 1} \times 100$$

where g is the growth of capitalization and n is the capital credit retirement cycle.

CALCULATING THE NET COST OF A BARE POLE

The net cost of a bare pole, as used in the formulas, represents the depreciated current value of a single pole minus accumulated deferred income taxes, multiplied by a factor of 0.85. The factor of 0.85 was devised by the FCC to remove the 15% of the total pole costs that the FCC believes is attributable to cross-arms and other utility pole items not used by attachers.

The calculations used to determine the net cost of a bare pole are listed below. For electric utilities, the accounts used by the FCC to calculate pole attachment rates are reported on FERC Form 1. A description of the various FERC Form 1 accounts is contained in the Code of Federal Regulations, at 18 C.F.R. Part 101.

$$\text{Net cost of a bare pole} = \frac{\text{factor (0.85)} \times (\text{net pole investment})}{\text{number of poles}}$$

$$\text{Net pole investment} = \begin{array}{l} \text{gross pole} \\ \text{investment} \end{array} \begin{array}{l} - \\ \end{array} \begin{array}{l} \text{accumulated} \\ \text{depreciation} \end{array} \begin{array}{l} - \\ \end{array} \begin{array}{l} \text{accumulated deferred} \\ \text{income taxes} \end{array}$$

$$\begin{array}{l} \text{(account 364)} \end{array} \begin{array}{l} \text{(account 108) (poles)} \end{array} \begin{array}{l} \text{(accounts 190, 281-293)} \end{array}$$

CALCULATING THE CARRYING CHARGE RATE

The carrying charge rate is expressed in terms of a percentage and represents the percentage of the net costs of a bare pole that is attributable each year to the administration, maintenance, and depreciation of poles, as well as to the payment of taxes and the collection of a return on the pole owner's investment in those poles. The annual cost to the utility of owning and maintaining a pole is determined by multiplying the carrying charge rate by the net cost of a bare pole.

The carrying charge rate is composed of five elements, as follows:

$$\text{Carrying charge rate} = \text{administrative} + \text{maintenance} + \text{depreciation} + \text{taxes} + \text{return}$$

Each of these five components is calculated as follows:

$$\text{Administrative element} = \frac{\begin{array}{l} \text{total general and administrative} \\ \text{(account 920-935)} \end{array}}{\begin{array}{l} \text{gross plant investment} \\ \text{(electric)} \\ \text{(accounts 350-373)} \end{array} - \begin{array}{l} \text{accumulated depreciation} \\ \text{(account 108-electric)} \end{array} - \begin{array}{l} \text{accumulated deferred taxes} \\ \text{(electric plant)} \\ \text{(accounts 190, 281-283)} \end{array}}$$

$$\text{Maintenance element} = \frac{\begin{array}{l} \text{account 593} \\ \text{(maintenance of overhead lines)} \end{array}}{\begin{array}{l} \text{pole investment in} \\ \text{accounts 364, 365, 369} \end{array} - \begin{array}{l} \text{depreciation (poles)} \\ \text{related to} \\ \text{accounts 364, 365, 369} \end{array} - \begin{array}{l} \text{accumulated deferred} \\ \text{income taxes related to} \\ \text{accounts 364, 365, 369} \end{array}}$$

$$\text{Depreciation element} = \frac{\text{gross pole investment (account 364)}}{\text{net pole investment}} \times \text{depreciation rate for gross pole investment}$$

$$\text{Depreciation rate} = \frac{100\% - \text{accumulated depreciation \%} - \text{future net salvage \%}}{\text{average remaining life}}$$

$$\text{Taxes element} = \frac{\text{accounts (408.1)+(409.1)+(410.1)+(411.4)+(411.1)}}{\text{gross plant investment (total plant) (accounts 350-399) - accumulated depreciation (account 108) - accumulated deferred taxes (plant) (accounts 190, 281-283)}}$$

Return element = applicable rate of return

Attacher Responsibility Percentage

After the net cost of a bare pole is multiplied by the carrying charge rate to determine the total annual cost of owning and operating a pole, that total annual cost is multiplied by the attacher's "responsibility percentage" to determine how much of the annual cost the attacher is obligated to pay.

Cable-Only Rate Responsibility Percentage

In the cable-only formula, this responsibility percentage is easy to calculate. It is determined by taking the space occupied by the attachment and dividing that figure by the total amount of usable space on the pole. This calculation is expressed as follows:

$$\text{Cable-only responsibility percentage} = \frac{\text{space occupied}}{\text{total usable space}}$$

For purposes of its rate calculations, the FCC presumes that the space occupied by an attachment is 1 foot, and that the total amount of usable space on an average 37.5-foot pole is 13.5 feet. According to these rebuttable presumptions, the cable-only responsibility percentage equals 1/13.5, or 7.4%. Accordingly, the FCC's cable-only formula requires cable companies to pay 7.4% of the total annual pole costs.

Telecom Rate Responsibility Percentage

The telecom rate allocation is viewed by the utility industry as inequitable, but it does allocate more costs to attachers than the cable-only rate. According to the telecom formula, the total annual pole costs are divided pro rata into usable space and unusable space portions, based on the percentage of the total pole height (presumed to average 37.5 feet) that the usable space (13.5 feet presumed) and unusable space (24 feet presumed) occupy. The costs assigned to the usable and unusable space portions of the pole are then allocated to the attachers, but different allocations are used for the usable portion than for the unusable portion.

The costs associated with the usable space portion of the pole are allocated to the attacher on the basis of the percentage of the usable space (presumed to be 1/13.5, or 7.4%) used by the attacher. The costs associated with the unusable space portion of the pole are allocated differently.

One-third of the unusable space costs are allocated exclusively to the utility pole owner. The other two-thirds of unusable space costs are allocated equally among all attachers, including the utility pole owner. Combining these allocations for usable and unusable space, the formula for determining the responsibility percentage for telecom attachers is:

$$\text{Telecom responsibility percentage} = \frac{\text{space occupied} + \left(\frac{2}{3} \times \frac{\text{unusable space}}{\text{no. of attaching entities}} \right)}{\text{pole height}}$$

COMPARISON OF THE FCC'S CABLE-ONLY AND TELECOM RATE FORMULAS

As explained, the cable-only and telecom rates are calculated by using the net costs of a bare pole and the carrying charge rate. In both cases, these two elements of the formula are multiplied together to determine the annual cost of owning and maintaining a pole. The sole difference between the cable-only and telecom formulas lies in how those annual costs are allocated to the attacher.

A comparison of rates resulting from the two FCC formulas is instructive. For purposes of this comparison, the FCC's rebuttable presumptions relating to space occupied, unusable space, and pole height will be used. Accepting these assumptions, if only two entities are attached to the pole, the telecom rate results in the regulated attacher being responsible for 24% of the total annual pole costs, which is 3.2 times greater than the 7.4% responsibility percentage calculated for the cable-only rate. The telecom rate, in fact, will always be higher than the cable-only rate until the number of attaching entities under the telecom rate equals nine. Table 3.2 compares the differences between the cable-only and telecom rates, on the basis of the number of attachers used for the telecom formula:

TABLE 3.2: Responsibility Percentages

Cable-only rate	0.074
Telecom rate	
2 attachers	0.24 (3.2 times greater)
4 attachers	0.13 (1.8 times greater)
6 attachers	0.098 (1.3 times greater)
8 attachers	0.080 (1.1 times greater)
9 attachers	0.074 (same as cable)

PHASE-IN OF THE FCC TELECOM RATE FORMULA

The 1996 Telecommunications Act recognized that higher pole attachment rental rates would result from implementation of the telecom formula, and required that those rate increases be phased in at the rate of 20% per year, beginning on February 8, 2001 (five years after the effective date of the 1996 Telecommunications Act). Thus, in July 2003, regulated utility pole owners whose attachments are subject to the FCC formula are entitled to charge their telecom attachers the cable-only rate plus 60% of the difference between the cable-only and telecom rates.

UNREGULATED CO-OPS AND THE LOWER CABLE-ONLY RATE

Neither the House Report, Senate Report, or Conference Report leading up to enactment of the 1996 Telecommunications Act explains why Congress adopted a higher rate for telecom attachments than for cable-only attachments. The House Report, however, did indicate that cable companies were furnished with a low pole attachment rate in 1978 in order "to spur the growth of the cable industry, which in 1978 was in its infancy." (H.R. Rep. No. 104-204, at 91 (1995).)

When deciding whether to adopt a formula that results in higher pole attachment rates, cooperatives should bear in mind that when Congress enacted the original Pole Attachment Act in 1978, it exempted cooperatives from FCC regulation in part because cooperatives were in the best position to determine what is best for their members and were charging attachers low pole attachment rates. Congress recognized that many members of cooperatives were cable subscribers themselves and stated that co-ops could be relied on to determine an equitable distribution of pole costs between themselves and the cable companies. (S. Rep. No. 95-580, at 18 (1977).) For these reasons, among others, the decision whether to impose higher pole attachment rates has been left largely to the discretion of the co-ops.¹

ADVANTAGES AND DISADVANTAGES TO USING THE FCC RATE FORMULAS

Unregulated electric co-ops should consider the following advantages to using the FCC formulas to calculate pole attachment rates:

- If used according to FCC rules, the rates are unimpeachable. The rate formulas are sanctioned by the U.S. Congress, have been adopted by most of the states that regulate pole attachments, and are the most widely accepted methodologies for calculating pole attachment rates.
- The FCC has a history of rate regulation and individual administrative decisions that can be relied on in case of dispute.
- The formulas produce a cost-based rate and, therefore, satisfy the federal tax law requirement that cooperatives operate on a cost basis.
- The FCC rate formulas would invite the least amount of either state or federal regulation.

Unregulated electric co-ops should consider the following disadvantages to using the FCC formulas to calculate pole attachment rates:

- The formulas do not allocate costs to attachers that, it can be reasonably argued, should be allocated to them.
- The FCC's rate regulation decisions generally are unfavorable to electric utilities.
- There is no current justification for the different treatment of cable-only and telecommunications company attachers,

except that Congress wanted to encourage the growth of cable in 1978 when cable was in its infancy

- The formulas are not all-inclusive and do not address rates for carrier's carriers, Internet-only companies, and incumbent local exchange carriers, whose rates are negotiated, not regulated.

[Back to top](#)

[Previous](#)

[Next](#)

¹See "Legal and Regulatory Issues," for a full discussion on the legislative history of the Pole Attachment Act of 1978.

[Overview](#) | [Political & Member Relations](#) | [Engineering & Operations](#) | [Rate Methodologies](#) | [Legal & Regulatory](#) | [Sample License Agreement](#) | [Survey Results](#)